### Fall Quarter 2014
- Quarter begins: September 29
- Instruction begins: October 2
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 27–28
- Instruction ends: December 12
- Common final examinations: December 13–14
- Final examinations: December 15–19
- Quarter ends: December 19
- Christmas holiday: December 24–25
- New Year's holiday: December 31–January 1
- Winter campus closure (tentative): December 26, 29, 30, January 2

### Winter Quarter 2015
- Quarter begins: January 5
- Instruction begins: January 5
- Martin Luther King, Jr. holiday: January 19
- Presidents' Day holiday: February 16
- Instruction ends: March 13
- Common final examinations: March 14–15
- Final examinations: March 16–20
- Quarter ends: March 20

### Spring Quarter 2015
- Quarter begins: March 25
- César Chávez holiday: March 27
- Instruction begins: March 30
- Memorial Day holiday: May 25
- Instruction ends: June 5
- Common final examinations: June 6–7
- Final examinations: June 8–12
- Quarter ends: June 12
- Commencement ceremonies: June 12–14

### Fall Quarter 2015
- Quarter begins: September 21
- Instruction begins: September 24
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 26–27
- Instruction ends: December 4
- Common final examinations: December 5–6
- Final examinations: December 7–11
- Quarter ends: December 11
- Christmas holiday: December 24–25
- New Year's holiday: December 31–January 1
- Winter campus closure (tentative): December 28–30

### Winter Quarter 2016
- Quarter begins: January 4
- Instruction begins: January 4
- Martin Luther King, Jr. holiday: January 15
- Presidents' Day holiday: February 18
- Instruction ends: March 11
- Common final examinations: March 12–13
- Final examinations: March 14–18
- Quarter ends: March 18
- Spring Quarter 2016
- Quarter begins: March 23
- César Chávez holiday: March 25
- Instruction begins: March 28
- Memorial Day holiday: May 30
- Instruction ends: June 3
- Common final examinations: June 4–5
- Final examinations: June 6–10
- Quarter ends: June 10
- Commencement ceremonies: June 10–12

### Online Publications
The UCLA General Catalog is available at [http://www.registrar.ucla.edu/catalog/](http://www.registrar.ucla.edu/catalog/). Links to updates of UCLA courses and curricula are available from the online Catalog main menu.

Consult the online Schedule of Classes for detailed information on registration and enrollment and for academic and administrative deadlines. The online Schedule at [http://www.registrar.ucla.edu/schedule/](http://www.registrar.ucla.edu/schedule/) has the most current information about fees, deadlines, and courses.

[http://www.registrar.ucla.edu](http://www.registrar.ucla.edu)
FROM THE CHANCELLOR
OF UCLA

This Catalog describes the almost endless academic choices available to you at UCLA. Choose from 5,000 courses each term, 128 undergraduate majors, 88 master’s programs, 110 doctoral and professional programs, and 89 minors as you build a course of study that suits your own interests and aspirations. The size and scope of our campus enables us to offer you a remarkable range of academic possibilities. At the same time, almost 70 percent of our undergraduate classes have fewer than 30 students so you can get to know your professors and classmates.

Your fellow students at UCLA come from incredibly diverse backgrounds. Those admitted to our freshman class for 2014-15 are from 50 states and 112 countries. But, like you, all of them are driven by an unwavering commitment to excellence and a determination to make a difference wherever they go.

Our faculty of more than 4,300 is made up of renowned scholars who are highly regarded as leaders in their fields. Undergraduates, as well as graduate students, have opportunities to study with top professors and conduct research under their guidance.

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

Our campus is a vibrant community made up of forward-thinking achievers who think outside traditional academic boundaries and share an exuberant sense of possibility. The UCLA experience prepares leaders who go on to excel all over the world.

I invite you to explore UCLA beyond the contents of this catalog. Visit us on campus, or online at http://www.ucla.edu.

Gene D. Block
Chancellor
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African Studies . . . . . . . . M.A.
American Indian Studies Interdepartmental Program
American Indian Studies . . . . B.A., M.A.
Anthropology Department
Anthropology . . . B.A., B.S., M.A., Ph.D.
Applied Linguistics Department
Ayran Languages . . . . . B.A.
Archaeology Interdepartmental Program
Archaeology . . . . . M.A., C.Phil., Ph.D.
Art History Department
Art History . . . . . B.A., M.A., Ph.D.
Asian American Studies Department
Asian American Studies . . . B.A., M.A.
Asian Languages and Cultures Department
Asian Humanities . . . . . B.A.
Asian Languages and Cultures . . . . M.A., C.Phil., Ph.D.
Asian Religions . . . . . B.A.
Chinese . . . . . B.A.
Japanese . . . . . B.A.
Korean . . . . . B.A.
Atmospheric and Oceanic Sciences Department
Atmospheric, Oceanic, and Environmental Sciences . . . . . . B.S.
Atmospheric and Oceanic Sciences . . . . M.S., C.Phil., Ph.D.
Biological Informatics Interdepartmental Program
Bioinformatics . . . . . M.S., Ph.D.
Chemistry and Biochemistry Department
Biochemistry . . . . . B.S.
Biochemistry and Molecular Biology . . . M.S., C.Phil., Ph.D.
Chemistry . . . . . B.S., M.S., C.Phil., Ph.D.
Chemistry/Materials Science . . . B.S.
Chemical/Materials Science . . . . B.S.
Chemistry . . . . . B.A.
Chicana and Chicano Studies Department, César E. Chávez
Chicana and Chicano Studies . . . . . B.A., M.A., Ph.D.
Classics Department
Classics . . . . . M.A., C.Phil., Ph.D.
Classical Civilization . . . . . B.A.
Greek . . . . . B.A., M.A.
Greek and Latin . . . . . B.A.
Latin . . . . . B.A., M.A.
Communication Studies Department
Communication Studies . . . . . B.A.
Comparative Literature Department
Comparative Literature . . . . . B.A., M.A., C.Phil., Ph.D.
Computational and Systems Biology Interdepartmental Program
Computational and Systems Biology . . . B.S.
Conservation of Archaeological and Ethnographic Materials Interdepartmental Program
Conservation of Archaeological and Ethnographic Materials . . . . . M.A.
Earth, Planetary, and Space Sciences Department
Earth and Environmental Science . . . B.A.
Geochemistry . . . . . M.S., C.Phil., Ph.D.
Geology . . . . . B.S., M.S., C.Phil., Ph.D.
Geology/Engineering Geology . . . B.S.
Geology/Paleobiology . . . . . B.S.
Geophysics/Applied Geophysics . . . B.S.
Geophysics/Geophysics and Space Physics . . . M.S., Ph.D.
East Asian Studies Interdepartmental Program
East Asian Studies . . . . . M.A.
Ecology and Evolutionary Biology Department
Ecology, Behavior, and Evolution . . . B.S.
Ecology . . . . . B.A., C.Phil., Ph.D.
Economics Department
Economics . . . . . B.A., M.A., C.Phil., Ph.D.
Economics/International Area Studies . . . B.A.
English Department
American Literature and Culture . . . B.A.
English . . . . . B.A., M.A., C.Phil., Ph.D.
French and Francophone Studies Department
French . . . . . B.A., M.A., C.Phil., Ph.D.
French and Linguistics . . . . . B.A.
Gender Studies Department
Gender Studies . . . . . B.A., M.A., Ph.D.
Geography Department
Geography . . . . . B.A., M.A., C.Phil., Ph.D.
Geography/Environmental Studies . . . B.A.
Germanic Languages Department
German . . . . . B.A.
Germanic Languages . . . . M.A., C.Phil., Ph.D.
Scandinavian Languages and Cultures . . . M.A.
Scandinavian Languages and Cultures . . . B.A.
Global Studies Interdepartmental Program
Global Studies . . . . . B.A.
History Department
History . . . . . B.A., M.A., C.Phil., Ph.D.
Individual Field of Concentration
Individual Field of Concentration . . . . B.A.
Indo-European Studies Interdepartmental Program
Indo-European Studies . . . C.Phil., Ph.D.
Institute for Society and Genetics, Center for Interdisciplinary Instruction
Human Biology and Society . . . . . B.A., B.S.
Institute of the Environment and Sustainability, Center for Interdisciplinary Instruction
Environmental Science . . . . . B.S.
Environmental Science and Engineering . . . . . B.A.
Institutional Biology and Physiology Department
Physiological Science . . . . . B.S., M.S.
International and Area Studies Interdepartmental Program
African and Middle Eastern Studies . . . B.A.
Asian Studies . . . . . B.A.
European Studies . . . . . B.A.
Latin American Studies . . . . . B.A.
International Development Studies Interdepartmental Program
International Development Studies . . . B.A.
Islamic Studies Interdepartmental Program
Islamic Studies . . . . . M.A., C.Phil., Ph.D.
Italian Department
Italian . . . . . B.A., M.A., C.Phil., Ph.D.
Italian and Special Fields . . . . . B.A.
Latin American Studies Interdepartmental Program
Latin American Studies . . . . M.A.
Linguistics Department
Linguistics . . . . . B.A., M.A., C.Phil., Ph.D.
Linguistics and Anthropology . . . B.A.
Linguistics and Asian Languages and Cultures . . . B.A.
Linguistics and Computer Science . . . . . . B.A.
Linguistics and English . . . . . . B.A.
Linguistics and French . . . . . . B.A.
Linguistics and Italian . . . . . . B.A.
Linguistics and Philosophy . . . . . . B.A.
Linguistics and Psychology . . . . . . B.A.
Linguistics and Scandinavian Languages . . . . . . B.A.
Linguistics and Spanish . . . . . . B.A.
Mathematics Department
Applied Mathematics . . . . . . B.S.
Financial Actuarial Mathematics . . . . . . B.S.
Mathematics . . . . . B.S., M.A., M.A.T., C.Phil., Ph.D.
Mathematics/Actuarial Science . . . . . . B.S.
Mathematics for Teaching . . . . . . B.S.
Mathematics of Computation . . . . . . B.S.
Mathematics/Atmospheric and Oceanic Sciences Interdepartmental Program
Mathematics/Atmospheric and Oceanic Sciences . . . . . . . B.S.
Mathematics/Economics Interdepartmental Program
Mathematics/Economics . . . . . . B.S.
Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics . . . . . B.S., M.S., Ph.D.
Molecular Biology Interdepartmental Program
Molecular Biology . . . . . Ph.D.
Molecular, Cell, and Developmental Biology Department
Molecular, Cell, and Developmental Biology . . . B.S., M.A., C.Phil., Ph.D.
Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cell, and Integrative Physiology . . . . . . . Ph.D.
Musicology Department
Music History . . . . . B.A.
Musicology . . . . . M.A., C.Phil., Ph.D.
Near Eastern Languages and Cultures Department
Ancient Near East and Egyptology . . . B.A.
Arabic . . . . . B.A.
Iranian Studies . . . . . B.A.
Jewish Studies . . . . . B.A.
Middle Eastern Studies . . . . . B.A.
Near Eastern Languages and Cultures . . . . . . M.A., C.Phil., Ph.D.
Neuroscience Interdepartmental Program
Neuroscience . . . . . B.S.
Philosophy Department
Philosophy . . . . . B.A., M.A., C.Phil., Ph.D.
Graduate School of Education and Information Studies

Education Department
Education . . . . . . M.A., M.Ed., Ed.D., Ph.D.  
Eduational Administration  
. . . . . . . . Joint Ed.D. with UCI  
Special Education . . Joint Ph.D. with CSULA  
Information Studies Department  
Information Studies . . . . . . Ph.D.  
Library and Information Science . . M.L.I.S.  
Moving Image Archive Studies  
Interdepartmental Program  
Moving Image Archive Studies . . . . M.A.

Henry Samueli School of Engineering and Applied Science

Bioengineering Department  
Bioengineering . . . . B.S., M.S., Ph.D.  
Chemical and Biomolecular Engineering Department  
Chemical Engineering . . . . B.S., M.S., Ph.D.  
Civil and Environmental Engineering Department  
Civil Engineering . . . . B.S., M.S., Ph.D.  
Computer Science Department  
Computer Science . . . . B.S., M.S., Ph.D.  
Computer Science and Engineering . . . . B.S.  
Electrical Engineering Department  
Electrical Engineering . . . . B.S., M.S., Ph.D.  
Engineering Schoolwide Programs  
Engineering . . . . M.Eng., M.S., Engr.  
Materials Science and Engineering  
Materials Engineering . . . . B.S., M.S., Ph.D.  
Mechanical and Aerospace Engineering Department  
Aerospace Engineering . . . . B.S., M.S., Ph.D.  
Manufacturing Engineering . . . . . . . . M.S.  
Mechanical Engineering . . . . B.S., M.S., Ph.D.

John E. Anderson Graduate School of Management

Management Department  
Business Administration  
. . . . . . . . M.B.A., EMBA, FEMBA, GEMBA  
Financial Engineering . . . . . . M.F.E.  
Management . . . . . . M.S., C.Phil., Ph.D.  

Jonathan and Karin Fielding School of Public Health

Biostatistics Department  
Biostatistics . . . . . . M.S., Ph.D.  
Community Health Sciences Department  
Community Health Sciences . . . . M.P.H.-HP, M.S., Ph.D.  
Environmental Health Sciences Department  
Environmental Health Sciences . . M.S., Ph.D.  
Epidemiology Department  
Epidemiology . . . . . . M.S., Ph.D.  
Health Policy and Management Department  
Health Policy and Management  
. . . . . . EMPH, M.S., Ph.D.  
Molecular Toxicology Interdepartmental Program  
Molecular Toxicology . . . . . . Ph.D.  
Public Health Schoolwide Programs  
Preventive Medicine and Public Health . . M.S.  
Public Health . . . . . . M.P.H., Dr.P.H.

Meyer and Renee Luskin School of Public Affairs

Public Policy Department  
Public Policy . . . . . . M.P.P.  
Social Welfare Department  
Social Welfare . . . . M.S.W., Ph.D.  
Urban Planning Department  
Urban and Regional Planning . . M.U.R.P.  
Urban Planning . . . . Ph.D.

School of the Arts and Architecture

Architecture and Urban Design Department  
Architectural Studies . . . . . . B.A.  
Architecture . . . . . . M.Arch. I, M.Arch. II, M.A., Ph.D.  
Art Department  
Art . . . . . . . . . . . . . . B.A., M.F.A.  
Design | Media Arts Department  
Design | Media Arts . . . . . . B.A., M.F.A.  
Ethnomusicology Department  
Ethnomusicology . . . . B.A., M.A., C.Phil., Ph.D.  
Individual Field  
Individual Field . . . . . . B.A.  
Music Department  
Music . . . . . . . . B.A., M.A., M.M., M.A., Ph.D.  
C.Phil., Ph.D.  
World Arts and Cultures/Dance Department  
Culture and Performance . . M.A., Ph.D.  
Dance . . . . . . . . B.A., M.F.A.  
World Arts and Cultures . . . . B.A.

School of Dentistry

Dentistry Department  
Dental Surgery . . . . . . D.D.S  
Oral Biology Section  
Oral Biology . . . . . . M.S., Ph.D.  

School of Law

Law Department  
Law . . . . . . . . . . . . . . LL.M., J.D., S.J.D.  

School of Nursing

Nursing Department  
Nursing . . . . . . B.S., M.S., M.S.N., Ph.D.  

School of Theater, Film, and Television

Film, Television, and Digital Media Department  
Film and Television . . . . . . B.A., M.A., M.F.A., C.Phil., Ph.D.  
Individual Field  
Individual Field . . . . . . B.A.  
Moving Image Archive Studies  
Interdepartmental Program  
Moving Image Archive Studies . . . . M.A.  
Theater Department  
Theater . . . . . . B.A., M.A., M.F.A.  
Theater and Performance Studies  
. . . . . . C.Phil., Ph.D.  

David Geffen School of Medicine

Biological Chemistry Department  
Biological Chemistry . . . . M.S., Ph.D.  
Biomathematics Department  
Biomathematics . . . . M.S., Ph.D.  
Clinical Research . . . . . . M.S.  
Biomedical Physics Interdepartmental Program  
Biomedical Physics . . . . M.S., Ph.D.  
Human Genetics Department  
Human Genetics . . . . M.S., Ph.D.  
Medicine Schoolwide Program  
Medicine . . . . . . M.D.  
Microbiology, Immunology, and Molecular Genetics Department  
Microbiology, Immunology, and Molecular Genetics . . . . M.S., Ph.D.  
Molecular and Medical Pharmacology Department  
Molecular and Medical Pharmacology . . . . M.S., Ph.D.  
Molecular, Cellular, and Integrative Physiology Interdepartmental Program  
Molecular, Cellular, and Integrative Physiology . . . . Ph.D.  
Neurobiology Department  
Neurobiology . . . . M.S., C.Phil., Ph.D.  
Neuroscience Interdepartmental Program  
Neuroscience . . . . . . Ph.D.  
Pathology and Laboratory Medicine Department  
Cellular and Molecular Pathology . . . . M.S., Ph.D.  

Physics and Astronomy Department

Astronomy . . . . . . . . M.S., M.A.T., Ph.D.  
Astrophysics . . . . . . . . B.S.  
Biophysics . . . . . . . . . . B.S.  
Physics . . B.A., B.S., M.S., M.A.T., Ph.D.  
Political Science Department  
Political Science . . . . B.A., M.A., C.Phil., Ph.D.  
Public Administration . . . . M.P.A.  
Psychology Department  
Cognitive Science . . . . . . B.S.  
Psychobiology . . . . . . B.S.  
Psychology . . . . B.A., M.A., C.Phil., Ph.D.  
Slavic, East European, and Eurasian Languages and Cultures Department  
Central and East European Languages and Cultures . . B.A.  
Russian Language and Literature . . . . B.A.  
Russian Studies . . . . . . B.A.  
Slavic, East European, and Eurasian Languages and Cultures . . . . M.A., C.Phil., Ph.D.  
Sociology Department  
Sociology . . . . B.A., M.A., C.Phil., Ph.D.  
Spanish and Portuguese Department  
Hispanic Languages and Literatures . . C.Phil., Ph.D.  
Portuguese . . . . B.A., M.A.  
Spanish . . . . . . B.A., M.A.  
Spanish and Community Culture . . . . B.A.  
Spanish and Portuguese . . . . B.A.  
Statistics Department  
Statistics . . . . B.S., M.S., C.Phil., Ph.D.  
Study of Religion Interdepartmental Program  
Study of Religion . . . . . . B.A.
Undergraduate Minors and Specializations

MINORS

College of Letters and Science
- African American Studies
- African and Middle Eastern Studies
- African Studies
- American Indian Studies
- 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
- Central and East European Studies
- Chicana and Chicano Studies
- Civic Engagement
- Classical Civilization
- Cognitive Science
- Comparative Literature
- Conservation Biology
- Digital Humanities
- Disability Studies
- Earth and Environmental Science
- East Asian Studies
- English
- Environmental Systems and Society
- European Studies
- Evolutionary Medicine
- French
- Gender Studies
- Geochemistry
- Geology
- Geophysics and Planetary Physics
- Geospatial Information Systems and Technologies
- Germanic Languages
- Global Studies
- Greek
- Hebrew and Jewish Studies
- History of Science and Medicine
- Iranian Studies
- Israel Studies
- Italian
- Labor and Workplace Studies
- Language Teaching
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual, and Transgender Studies
- Linguistics
- Mathematical Biology
- Mathematics
- Mexican Studies
- Middle Eastern Studies
- Music History
- Neuroscience
- Philosophy
- Political Science
- Portuguese
- Russian Language
- Russian Literature
- Russian Studies
- Scandinavian
- Science Education
- Social Thought
- Society and Genres
- South Asian Studies
- Southeast Asian Studies
- Spanish
- Spanish Linguistics
- Statistics
- Structural Biology
- Study of Religion
- Systems Biology
- Teaching Secondary Mathematics

Graduate School of Education and Information Studies
- Education Studies
- Henry Samueli School of Engineering and Applied Science
- Bioinformatics
- Environmental Engineering

John E. Anderson Graduate School of Management
- Accounting
- Jonathan and Karin Fielding School of Public Health
- Public Health
- Meyer and Renee Luskin School of Public Affairs
- Gerontology
- Public Affairs
- Urban and Regional Studies
- School of the Arts and Architecture
- Music Industry
- Visual and Performing Arts Education
- School of Theater, Film, and Television
- Film, Television, and Digital Media
- Theater

SPECIALIZATIONS

College of Letters and Science
- Computing
- Chemistry
- Communication Studies
- Ecology and Evolutionary Biology
- Economics
- Linguistics
- Mathematics
- Mathematics/Economics
- Molecular, Cell, and Developmental Biology
- Psychology
- Sociology

Graduate Concurrent and Articulated Degrees

CONCURRENT DEGREES

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

ARTICULATED DEGREES

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

Latin American Studies Interdepartmental
- M.A./Education M.Ed. in Curriculum
- Latin American Studies Interdepartmental
- M.A./Library and Information Science
- M.A./Social Science M.S.W.
- Latin American Studies Interdepartmental
- M.A./Urban Planning M.U.R.P.
- Management M.B.A./Latin American Studies Interdepartmental M.A.
- Management M.B.A./Law J.D.
- Management M.B.A./Library and Information Science M.L.I.S.
- Management M.B.A./Medicine M.D.
- Management M.B.A./Nursing M.S.N.
- Management M.B.A./Public Health M.P.H.
- Management M.B.A./Policy M.P.P.
- Philosophy Ph.D./Law J.D.
- Public Health M.P.H./Law J.D.
- Public Health M.P.H./Policy M.P.P.
- Public Health M.P.H./Social Welfare M.S.W.
- Public Policy M.P.P./Law J.D.
- Public Policy M.P.P./Medicine M.D.
- Social Welfare M.S.W./Law J.D.
- Social Welfare M.S.W./Policy M.P.P.
- Urban Planning M.U.R.P./Law J.D.
- Oral Biology M.S. or Ph.D./Dentistry D.D.S. or Certificate
- Public Health M.P.H./Medicine M.D.
About UCLA

Few universities in the world offer the extraordinary range and diversity of academic programs that students enjoy at UCLA. Leadership in teaching, 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.

TEACHING

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 doctoral degree disciplines studied in the 2011 evaluation, 33 UCLA academic departments ranked among the top 10 in the country and 12 ranked among the top 20.

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

This remarkable pool of talent is shared between one college and 11 professional schools. The College of Letters and Science offers programs leading to both undergraduate and graduate degrees, as do the School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, and School of Theater, Film, and Television. The other professional schools offer graduate programs exclusively: the Graduate School of Education and Information Studies, School of Law, John E. Anderson Graduate School of Management, Meyer and Renee Luskin School of Public Affairs and, in the health sciences, the School of Dentistry, David Geffen School of Medicine, and Jonathan and Karin Fielding School of Public Health.

Undergraduates may earn a Bachelor of Arts or Bachelor of Science degree in one of 128 different disciplines; graduate students may earn one of 88 master’s and 110 doctoral and 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 it’s 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 10 leading research universities in the country, UCLA received $894 million in 2012-13 in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities.

Its laboratories have seen major breakthroughs in scientific and medical research; its study centers have helped foster understanding among the various cultures of the world; 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 UCLA’s greatest commitments. 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 the University 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. Low-income families receive top-quality medical care through the UCLA Health System.

In terms of overall excellence, UCLA is one of America’s most prestigious and influential public universities. It is consistently rated among the best universities in the nation.
The Los Angeles branch of the State Normal School welcomed students in 1882. Ground was broken for the Westwood campus in 1927, when construction began on Royce Hall.

A Brief History of UCLA

With only 11,000 inhabitants in 1880, the pueblo of Los Angeles convinced the state government to establish a State Normal School in Southern California. Enthusiastic citizens contributed between $2 and $500 to purchase a site, and on August 29, 1882, the Los Angeles Branch of the 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 by 1927 the Southern Branch had earned its new name: University of California at Los Angeles. (The name was changed again in 1958 to University of California, Los Angeles.)

Continued growth mandated the selection of 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, Powell Library, Haines Hall, and Kinsey Hall (now called the Humanities Building)—formed a lonesome cluster in the middle of 400 empty acres. The campus hosted some 5,600 students its first term in 1929. The Regents established the master’s degree at UCLA in 1933 and, three years later, the doctorate. UCLA was fast becoming a full-fledged university offering advanced study in almost every field.

The most spectacular growth at UCLA occurred in the 25 years following World War II, when it tripled its prewar enrollment of 9,000 students and 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 581-bed teaching hospital that is now one of the largest and most highly respected in the world.
treatment from School of Dentistry clinics on campus and in Venice. The Santa Monica-UCLA Medical Center’s Rape Treatment Center offers 24-hour care to victims. The Fielding School of Public Health’s Community Health Promotion Program supports community-service projects to benefit poor and underserved communities, and the School of Nursing offers care through its nurse-managed Health Center at the Union Rescue Mission. The University also supports K-12 enhancement programs such as the School of the Arts and Architecture’s Music Partnership Program, which funds UCLA students to be academic and musical mentors for at-risk youth.

As UCLA gives to the community, Los Angeles gives something back. The University’s 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 classic-film screenings from the School of Theater, Film, and Television archives. These relationships create opportunities for partnerships and growth that ensure UCLA’s preeminence in the twenty-first century and beyond.

### LIFE ON CAMPUS

Just five 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. Some 199 buildings on 419 acres house the College of Letters and Science plus 11 professional schools and serve more than 42,190 students.

### A UNIQUE SETTING

The Romanesque architecture of UCLA’s early buildings blends with the modern design of new structures and provides 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 the Ackerman quad, 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.

To give a feel for the dynamic atmosphere at UCLA, Undergraduate Admission offers tours tailored to prospective undergraduates. See http://www.admission.ucla.edu/tours.htm or call (310) 825-8764 or 206-3719.

### A LARGE CAMPUS WITH A COMFORTABLE FEEL

The general campus population, some 38,162 students, is enriched by an additional 4,028 in the health sciences schools of Dentistry, Medicine, Nursing, and Public Health. While such numbers sound daunting, the University provides orientation sessions and innovative academic assistance programs to help acclimate new students and, through a range of services and social programs, new students quickly meet people with common interests in their academic departments, residence halls, or clubs and organizations. Even athletic events help to cement relationships as the campus comes together to celebrate Bruin victories.

Large lecture groups exist, especially in introductory courses; however, 86 percent of lower division lecture classes in 2012-13 had under 200 students, and the University 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 16 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) who are available to talk about academic problems.

### A DYNAMIC STUDENT BODY

Students at UCLA pride themselves on academic excellence. The Fall Quarter 2013 entering freshman class had an average high school GPA of 4.29, with an average composite score on the SAT Reasoning Test of 1,942 out of a possible 2,400.

One of the University’s highest priorities is to advance the diversity of its students, faculty, staff, and administrators. UCLA’s 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 112 foreign countries to study at UCLA. Ethnic minorities comprise 71.4 percent of the undergraduates and 61.6 percent of the graduate student population, and international students and scholars presently number over 10,000, making this one of the most popular American universities for students from abroad.

### 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 11 graduate and professional schools present an extraordinary richness and diversity of teaching programs. The International Education Office, Summer Sessions, UCLA Extension, and UCLA International Institute provide academic and professional resources to UCLA and the greater Los Angeles community, as well as to the international community.

**UCLA College and Schools**

Academic programs offered at UCLA span the breadth and depth of over 200 disciplines and areas of study. Lecture, discussion, laboratory, research, and creative courses are supplemented by seminars, honors programs, specialized freshman clusters, internships, and education abroad opportunities. Instruction takes place in many unique venues, including specialized classrooms, computer and scientific laboratories, performance and studio spaces, and off-campus settings. Students and faculty members themselves mirror the cultural and racial diversity of Los Angeles. Academic programs are described in detail in the Curricula and Courses section of this catalog.

**International Education Office**

The International Education Office (IEO) believes that study abroad and student exchange are exciting and broadening experiences that enrich any educational curriculum. The office works to facilitate international education by serving as the campuswide portal for the development and administration of study abroad and student exchange activity. It provides assistance to academic units seeking to develop study abroad programs, and it collaborates with the Academic Senate and departments to insure 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), Travel Study, Non-UC Programs, and various student exchange agreements.

Full details about the academic programs abroad, requirements, and application procedures are available in 1332 Murphy Hall, (310) 825-4995. See http://ieo.ucla.edu.

**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 40 countries throughout the world. Participating students remain registered on 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 assistance. See http://ieo.ucla.edu/uceap.

**Travel Study**

Travel Study offers short-term summer programs on five different continents. The Travel Study programs offer UC credit, the promise of an exciting summertime adventure, and intensive learning experiences taught by distinguished UCLA faculty members. Over 20 academic departments offer 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. Travel Study is open to all students at any academic level. There is no grade-point average requirement to participate. See http://ieo.ucla.edu/travelstudy.

**Non-UC Programs**

The IEO also advises students about the many study abroad programs available through other universities or outside providers. Students should check with IEO to make sure those organizations are credible and to learn about the policies involved in taking a planned academic leave (PAL) for study abroad and the transfer of credit back to UCLA from other institutions. See http://ieo.ucla.edu/nonucprograms.

**Summer Sessions**

Throughout the summer, UCLA provides three ways to earn UC credit—academic courses, Summer Institutes, and Travel Study. More than 700 courses from approximately 60 departments are offered in six-, eight-, nine-, and 10-week sessions. Developed from courses that are already part of UCLA’s regular curriculum, Summer Institutes offer the breadth and depth of UCLA’s academic rigor in an intensive, holistic format that allows students to share a unique hands-on learning experience. Some Summer Institute programs are specifically designed for advanced high school students. Travel Study programs offer the option to study various subjects as part of an exciting and challenging travel experience. Many students take advantage of Summer Sessions to enroll in courses they were unable to take during the year, put themselves closer to graduation, explore possibilities, and broaden perspectives.

Although visiting students are welcome to enroll, admission to Summer Sessions does not constitute admission to the University in either undergraduate or graduate standing. Students who wish to attend UCLA in regular session must follow admission procedures described in the Undergraduate Study and Graduate Study sections of this catalog.

Regularly enrolled undergraduate students may attend UCLA Summer Sessions for full unit and grade credit. Summer Sessions work is recorded on the UCLA transcript, and grades earned are computed in the grade-point average. 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 Summer Sessions study. Financial aid funds are available to UCLA students.

Regularly enrolled graduate students may, with departmental approval, take regular session courses offered in Summer Sessions for credit toward a master’s or doctoral degree; consult a graduate adviser in advance con-
The U.S. Department of Education has designated the UCLA International Institute as the central hub for global and area studies on campus, offering six undergraduate majors, eight undergraduate minors, and four graduate programs in regional and global studies. Founded in 1958, the institute educates students, champions scholarship, and builds academic partnerships here and abroad. More than 25 centers and programs promote innovative multidisciplinary research and educational opportunities in virtually every region of the world. Together they serve the entire campus through graduate student fellowships, language study scholarships, faculty grants, and funding for conferences, publications, and collaborative research projects.

The U.S. Department of Education has designated the institute’s programs in East Asia, Europe and Eurasia, Latin America, Near East, and Southeast Asia as National Resource Centers, and its specialized center for heritage language teaching as a National Heritage Language Research Center. The institute also houses thematic centers, including the Burke Center for International Relations and the Program on International Migration. Other programs engage local, national, and international communities, such as the Fulbright Enrichment program for Greater Los Angeles, the International Visitors Bureau that hosts over 600 international educational and professional visitors each year, and the Center for World Languages.

A gateway to the world for UCLA and the global city of Los Angeles, the International Institute and its centers organize a robust schedule of free public events, along with research conferences, cultural programs, and K-12 teacher institutes. At the campus level the institute brings together UCLA’s globally and regionally focused faculty members, departments, and research centers in collaborative initiatives to address pressing world challenges such as climate change and international conflicts. At the global level the institute manages UCLA’s more than 300 formal research, teaching, and student exchange agreements with foreign institutions, including universities, governments, nonprofit organizations, and businesses worldwide. See http://web.international.ucla.edu/institute/home or call (310) 825-4811.

RESEARCH PROGRAMS

At any given time, more than 6,000 funded research programs are in progress at UCLA. For more information on the Organized Research Units listed below, see https://vcr.ucla.edu/organized-research-units-oru-1.

ORGANIZED RESEARCH UNITS

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

BRAIN RESEARCH INSTITUTE

The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with nearly 300 scientists from 26 departments involved in every aspect of neuroscience research from molecular organization to human behavior. The BRI provides 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. See http://www.bri.ucla.edu or call (310) 825-5061.

CENTER FOR EUROPEAN AND EURASIAN STUDIES

The Center for European and Eurasian Studies (CEES) develops and coordinates teaching and research on Russia and the successor states of the former Soviet Union, as well as the countries of western Europe, 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 Ser-
The Cotsen Institute of Archaeology (COIOA) 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 35 researchers and many graduate students and volunteers in 11 associated academic departments. Facilities include the Ceramics Research Group, Cotsen Digital Archive, Lithic Analysis Research Group, 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 provides a forum for the public presentation of archaeological discoveries and advances. See http://www.ioa.ucla.edu or call (310) 206-8934.

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 Ph.D. graduate students that include the development of multimedia computer-based learning technologies. See http://www.crump.ucla.edu or call (310) 825-4903 or 825-6539.

DENTAL RESEARCH INSTITUTE
The Dental Research Institute (DRI) fosters excellence in research, professional research training, and public education as it focuses on the basic mechanisms of disease in the orofacial region. Members include scientists in molecular biology, immunology, virology, biochemistry, pharmacology, pathology, genetics, developmental biology, neurobiology, and neurophysiology. Research includes molecular oncology, viral oncology, molecular mechanisms of periodontal diseases, dental implantology, orofacial pain, neuroimmunology, molecular immunology, HIV immunology, and wound repair. The DRI contributes to educational activities in the form of quarterly seminars in the UCLA Center for the Health Sciences. See http://www.dentistry.ucla.edu/research or call (310) 206-3048.

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 programs in African and Middle Eastern Studies and in Islamic Studies. Resources of the center 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. See http://web.international.ucla.edu/cnes/ or call (310) 825-1181.

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 Center for Labor Research and Education offers social policy and
employment relations programs to the public, unions, and management. The academic unit of the institute oversees the Labor and Workplace Studies minor. See http://www.irle.ucla.edu or call (310) 794-5957.

**INSTITUTE OF AMERICAN CULTURES**

The Institute of American Cultures (IAC) oversees four ORUs associated with UCLA ethnic studies centers. Applying the University’s capabilities to the analysis and solution of social issues, the institute makes funds available for research and fellowships and promotes the study and illumination of the histories of African Americans, American Indians, Asian Americans, and Chicanas/Chicanos. See http://www.iac.ucla.edu or call (310) 825-6815.

**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 Afro-American studies curriculum, publishes research results, and sponsors community service programming. See http://www.bunchecenter.ucla.edu or call (310) 825-7403.

**American Indian Studies Center**

The American Indian Studies Center (AISC) serves as an educational and research catalyst and includes a library, postdoctoral fellowship programs, a publishing unit that produces books and a quarterly journal, and a student/community relations unit. See http://www.aisc.ucla.edu or call (310) 825-7315.

**Asian American Studies Center**

The Asian American Studies Center (AASC) seeks to increase the 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 fellowships. See http://www.aasc.ucla.edu or call (310) 825-2974.

**Chicano Studies Research Center**

The Chicano Studies Research Center (CSRC) promotes the study and dissemination of knowledge on the experience of the 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. See http://www.chicono.ucla.edu or call (310) 825-2363.

**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, geochronology, planetology, petrology, 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 geochronology, meteoritics, glaciology, petrology, geochronology, archaeology, and the origins of life; laboratories for experiments in fluid dynamics and high-pressure physics; developmental laboratories for instrumentation in space physics and seismology; and computational laboratories for large-scale numerical modeling. See http://www.igpp.ucla.edu or call (310) 206-2285.

**INTELLECTUAL AND DEVELOPMENTAL DISABILITIES RESEARCH CENTER**

The Intellectual and Developmental Disabilities Research Center (IDDRC) provides 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. See http://www.mrrc.npi.ucla.edu/iddrc/home.aspx or call (310) 825-9395 or 825-6429.

**JAMES S. COLEMAN AFRICAN STUDIES CENTER**

The Coleman African Studies Center (JSCASC) coordinates research and teaching on 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. See http://webinternational.ucla.edu/africa/ or call (310) 825-3686.

**JULES STEIN EYE INSTITUTE**

The Jules Stein Eye Institute (JSEI) 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 facilities are provided. See http://www.jssei.org or call (310) 825-5053.

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. See http://web.international.ucla.edu/lai/ or call (310) 825-4571.

**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 30 MBI members and the Institute for Genomics and Proteomics, as well as the administration of the Molecular Biology Interdepartmental Ph.D. Program and the Biosciences Program. See http://www.mbi.ucla.edu or call (310) 825-1018.

**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, laser-plasma interactions, and the use of plasma in applications ranging from particle accelerators to the processing of materials and surfaces used in microelectronics or coatings. See http://www.physics.ucla.edu/psti/ or call (310) 825-4789.

**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. See http://www.doe-mbi.ucla.edu/overview or call (310) 825-3754.

**SPECIALIZED RESEARCH CENTERS, LABORATORIES, AND INSTITUTES**

Additional research centers, laboratories, and institutes advance scholarship in all fields. The breadth of research conducted on campus is reflected in undertakings as diverse as the California Center for Population Research (http://www.ccpr.ucla.edu)—which carries out basic and applied research and training in demography—and the Jonsson Comprehensive Cancer Center (http://www.cancer.ucla.edu)—one of only 41 comprehensive centers in the nation. For a list of research centers, laboratories, and institutes, see http://www.research.ucla.edu/labs/index.htm.

Interdisciplinary activities in the social sciences include the nationally respected UCLA Anderson Forecast (http://uclaforecast.com) in UCLA’s Anderson Graduate School of Management and the Center for Study of Evaluation and the National Center for Research on Evaluation, Standards, and Student Testing (http://www.cse.ucla.edu) in the Graduate School of Education and Information Studies, which are at the forefront of efforts to improve the quality of education and learning in America.

In the health sciences, research ranges from improving the quality of life for patients and caregivers at the UCLA Alzheimer’s Disease Research Center (http://www.eastonad.ucla.edu) to epidemiology, immunology, and the clinical management of AIDS at the UCLA AIDS Institute (http://aidsinstitute.ucla.edu) and the Center for Clinical AIDS Research and Education (http://www.uclahealth.org/homepage_site.cfm?id=1926). The Fernald Child Study Center (http://www.psych.ucla.edu/center-and-programs/fernald-child-study-center) focuses on the study and treatment of a variety of childhood behavioral problems and learning disorders.

In the physical sciences and engineering, the Institute for Pure and Applied Mathematics (http://www.ipam.ucla.edu) makes connections between a wide spectrum of mathematicians and scientists and broadens the range of applications in which mathematics is used. The UCLA Logic Center (http://www.logic.ucla.edu) fosters teaching and research in logic, broadly understood to include all areas of mathematical and philosophical logic, as well as the applications of logic to philosophy, linguistics, and computer science. On other frontiers, the Center for Embedded Networked Sensing (http://research.cens.ucla.edu), a National Science Foundation Science and Technology Center, develops embedded networked sensing systems to monitor and collect information on plankton colonies, endangered species, soil and air contaminants, medical patients, and buildings, bridges, and other man-made structures.

The Center for Study of Urban Poverty (http://www.cusp.ucla.edu) initiates new research on issues related to urban poverty and sponsors seminars in the field. The Center for Policy Research on Aging (http://luskin.ucla.edu/content/center-policy-research-aging) addresses the significant issues of an aging society through policy analysis, dissemination of information, and technical assistance to the public and private sectors.

**SUPPORTING RESOURCES**

As UCLA students and scholars advance knowledge, illuminate the past, shape the present, and uncover the future, they rely on resources that support their endeavors in all fields. From a top-rated library to out-
door nature reserves, the campus is well-equipped to meet diverse scholastic needs.

**ART GALLERIES AND MUSEUMS**

The leading arts and cultural center in the West, UCLA museums, galleries, and gardens provide eclectic resources ranging from the ancient to the avant-garde.

**Fowler Museum at UCLA**
The Fowler Museum at UCLA is internationally known for the quality of its collections, which 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. For more information on hours and admission, see http://www.fowler.ucla.edu or call (310) 825-4361.

**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. See http://hammer.ucla.edu/collections/detail/collection_id/5 or call (310) 443-7078.

**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 the University. Tours may be arranged. See http://hammer.ucla.edu/collections/detail/collection_id/6 or call (310) 443-7055 or 443-7041.

**New Wight Gallery**
The New Wight Gallery is an exhibit space for visual arts, including student and faculty exhibitions. The gallery is housed in 1100 Broad Art Center, (310) 825-0557. See http://www.art.ucla.edu/gallery/index.html.

**UCLA Hammer Museum**
The UCLA Hammer Museum regularly presents its collection of Impressionist and Post-Impressionist paintings by such artists as Monet, Pissarro, Sargent, Cassatt, 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. For information on programming, hours, and docent tours, see http://hammer.ucla.edu or call (310) 443-7000.

**UCLA 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 UCLA Meteorite Gallery located in 3697 Geology. The collection and gallery are a major resource for cosmochemical research and the teaching of planetary science. For information on hours, see http://meteorites.ucla.edu.

**Libraries**
The UCLA Library, a campuswide network of libraries serving programs of study and research in many fields, is among the top 10 ranked research libraries in the U.S. The total collections number more than 10 million volumes, and over 112,000 serial titles are received regularly. Reference librarians are available in all library units to answer questions about using online systems and to provide assistance with reference and research topics.

Students locate and identify materials through the library’s web-based online information systems. The UCLA Library Catalog contains records for all UCLA Library holdings and other campus collections, including the Archive Research and Study Center of the Film and Television Archive, Chicano Studies Research Center Library, Ethnomusicology Archive, Social Science Data Archive, Instructional Media Collections and Services, and William Andrews Clark Memorial Library. It also provides library item location and circulation status. Other available catalogs include the UC Libraries Catalog (Melvyl), WorldCat, Center for Research Libraries, Online Archive of California, numerous abstracting and indexing databases, and gateways to other systems. The Melvyl Catalog contains information on library holdings at all 10 UC campuses. While continuing to develop and manage collections of traditional printed materials, the UCLA Library also makes a number of digital resources available for campus use through the library site. These include College Library electronic reserves and electronic journals, texts, reference resources, periodical indexes, and abstracts. See http://www.library.ucla.edu.

**Arts Library**
Housed in the Public Affairs Building, the Arts Library has more than 300,000 books on architecture, architectural history, art, art history, design, film, television,
The UCLA Library is among the top research libraries in the U.S.

The UCLA Library, provides students with access to computers and multimedia equipment, and Night Powell provides study space in a late-night reading room. See http://www.library.ucla.edu/libraries/college/college-undergraduate-library or call (310) 825-1938 or 825-9389.

RICHARD C. RUDOLPH EAST ASIAN LIBRARY


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 and contains over 600,000 bound volumes and over 30,000 electronic titles. See http://www.law.ucla.edu/library/Pages/default.aspx or call (310) 825-4743 or 825-6414.

LOUISE M. DARLING BIOMEDICAL LIBRARY

The Darling Biomedical Library, located in the Center for the Health Sciences, serves all the UCLA health and sciences departments and schools and the 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 678,000 print volumes and 3,170 journal subscriptions. See http://www.library.ucla.edu/libraries/biomed/louise-m-darling-biomedical-library or call (310) 825-4904.

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. It also houses the Archive of Popular American Music, a special collection of published and manuscript sheet music, recordings, and related materials. 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. See http://www.library.ucla.edu/libraries/music/music-library or call (310) 825-4882 or 825-1353.

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 and contains over 600,000 bound volumes and over 30,000 electronic titles. See http://www.law.ucla.edu/library/Pages/default.aspx or call (310) 825-4743 or 825-6414.

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The Darling Biomedical Library, located in the Center for the Health Sciences, serves all the UCLA health and sciences departments and schools and the 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 678,000 print volumes and 3,170 journal subscriptions. See http://www.library.ucla.edu/libraries/biomed/louise-m-darling-biomedical-library or call (310) 825-4904.

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RICHARD C. RUDOLPH EAST ASIAN LIBRARY


about Leonardo da Vinci and related materials in Renaissance studies. Performing Arts Special Collections, housed in the Young Research Library, contain noncirculating materials including the Artists’ File, archival records of major Southern California motion picture studios and television production companies, scripts from film, television, and radio, animation art, personal papers of writers, directors, and producers, photographs and production stills, posters, lobby cards, press kits, and West Coast theater playbills. See http://www.library.ucla.edu/libraries/arts/arts-library or call (310) 206-5425.

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. It also houses the Archive of Popular American Music, a special collection of published and manuscript sheet music, recordings, and related materials. 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. See http://www.library.ucla.edu/libraries/music/music-library or call (310) 825-4882 or 825-1353.

RICHARD C. RUDOLPH EAST ASIAN LIBRARY

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/Engineering and Mathematical Sciences 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-Geophysics 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. See http://www.library.ucla.edu/libraries/sel/science-engineering-library or call (310) 825-4951, 825-1055, or 825-3982.

SPECIAL ARCHIVES AND COLLECTIONS

In addition to the extensive collections of the University 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 (http://www.bunchecenter.ucla.edu) contains materials reflecting the African American experience in the social sciences, arts, and humanities. The American Indian Studies Center Library (http://www.aisc.ucla.edu/library/) houses a collection on American Indian life, culture, and state of affairs in historical and contemporary perspectives, while the Asian American Studies Center Reading Room/Library (http://www.aasc.ucla.edu/library/) features Asian and Pacific Island American resources.

Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library (http://www.chicano.ucla.edu/library), and the William Andrews Clark Memorial Library (http://www.clarklibrary.ucla.edu) contains rare books, manuscripts, and other noncirculating materials on English culture (1641 to 1800). The English Reading Room (http://www.library.ucla.edu/resource/english-reading-room) features a noncirculating collection of British and American literature, literary history, and criticism.

INSTRUCTIONAL MEDIA COLLECTIONS AND SERVICES AND LABORATORY

The Instructional Media Collections and Services, located in the Powell Library Building, is UCLA's central resource for the 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 University 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. See http://www.oid.ucla.edu/units/imcs or call (310) 825-0755.

The Instructional Media Laboratory provides access to course- or textbook-related audio, interactive, and videotape programs. Students, assigned by faculty members to study specific supplementary materials, may learn at their own pace and time. See http://www.oid.ucla.edu/edtech/medialab or call (310) 206-1211.

UCLA FILM AND TELEVISION ARCHIVE

The UCLA Film and Television Archive is the world's largest university-based collection of motion pictures and broadcast programming. The archive's holdings of over 300,000 original film and television materials serve both 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's exhibition program presents evening screenings and discussions that focus on archival materials, new work by independent filmmakers, and an array of international films. See http://www.cinema.ucla.edu or call (310) 206-8013 or (310) 794-8888.

The Archive Research and Study Center (ARSC) in the Powell Library Building (310-206-5388) provides on-site viewing of the Film and Television Archive's collections and research consultation to students, faculty, and researchers.

OTHER COLLECTIONS

The Ethnomusicology Archive (http://www.ethnomusic.ucla.edu/archive/) houses over 100,000 sound and audiovisual recordings of folk, ethnic, and non-Western classical music, while the Social Science Data Archive (http://dataarchives.ss.ucla.edu) contains a collection of statistical databases for the social sciences. The UCLA Lab School Gonda Family Library (http://www.labschool.ucla.edu/learning/library) features contemporary materials for children from kindergarten through junior high school and adult works on children's literature.

The Film and Television Archive contains 220,000 original film and TV holdings, including millions of feet of Hearst Metrotone News film dating back to 1919.

The Ethnomusicology Archive includes recordings and a vast collection of musical instruments from non-Western countries.
PARKS, RESERVES, AND NATURAL SCIENCE RESOURCES

The geography of Southern California is conducive to research in the natural sciences. The 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. See https://www.eeb.ucla.edu/dickey/index.php or call (310) 825-1282.

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 veterinary medical and husbandry programs throughout the campus. See https://portal.dlam2.ucla.edu/Pages/Default.aspx or call (310) 794-2571.

MARINE SCIENCE CENTER

The Marine Science Center coordinates marine-related teaching and research on campus and facilitates interdepartmental interaction of faculty members and students. UCLA offers one of the broadest interdisciplinary educational programs in marine sciences in the U.S. Field trips for marine-related courses and access to research sites in the Santa Monica Bay, Channel Islands, and the Southern California Bight are provided by UCLA’s 68-foot research vessel Sea World UCLA. See http://www.msc.ucla.edu/Sea_World/ or call (310) 206-8247.

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 specializes in tropical and subtropical plants, including some 5,000 species in 225 families. 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. See http://www.botgard.ucla.edu or call (310) 825-1260 or 206-6707.

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. See http://stunt ranch.ucnrs.org or call (310) 206-3887.

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.

SERVICES FOR STUDY

From academic advising to advanced computer support, UCLA services for study 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 Advising and Academic Assistance in the Undergraduate Study section of this catalog). In addition, special graduate advisers are available in each department to assist prospective and currently enrolled graduate students.

BRUIN ONLINE

Bruin OnLine (BOL) 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, and personal web hosting. Wireless Internet access is available in select campus locations for BOL account holders. Utility software can be downloaded from the BOL website. Help desk services are available online, by e-mail at consult@ucla.edu, by telephone at (310) 267-4357, and at the BOL office in Kerckhoff Hall. See https://www.bol.ucla.edu.

COMPUTER LABORATORIES

Student laboratories are supported through the College Library Instructional Computing Commons (CLICC, http://www.library.ucla.edu/clicc/welcome-clicc), a collaborative effort of the Center for Digital Humanities (http://www.cdh.ucla.edu/labs/), Social Sciences Computing (http://computing.sscnet.ucla.edu/labs), Office of Instructional Development, and College Library. Some 15 computer laboratories are available
The Instructional Enhancement Initiative assures that all UCLA undergraduate nontutorial courses provide an individual online course website for both faculty members and enrolled students. The sites facilitate the distribution of course materials, lecture notes, homework assignments, research links, and electronic communication. Instructors decide which of these online capabilities are best suited to their course websites.

**Course Websites**

The Instructional Enhancement Initiative assures that all UCLA undergraduate nontutorial courses provide an individual online 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.

**Disabilities and Computing Program**

The Disabilities and Computing Program (DCP) provides adaptive technology services and support to students, faculty, and staff with disabilities, to faculty who are working with students with disabilities, and to departments. The DCP also coordinates access to computers, local area networks, and online resources for people with disabilities. See http://www.dcp.ucla.edu or call (310) 206-7133 or 206-6004.

**Lecture Notes and Course Readers**

For certain courses, students may subscribe to Lecture Notes, which publishes concise weekly summaries of about 100 lecture classes. See http://shop.uclastore.com/c-330-lecture-notes.aspx or call (310) 825-8016. Course Reader Solutions provides custom course readers, obtaining 5,000 copyright authorizations each year. See http://shop.uclastore.com/c-323-custom-course-readers.aspx or call (310) 825-2831.

**MYUCLA**

MYUCLA provides 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 that walks students through the different steps of the procedure they are trying to accomplish, whether it be to check their billing accounts, change address information, view and print Study Lists or Degree Progress Reports (DPRs) or Degree Audits, or see term grades. MYUCLA also provides a convenient way to enroll in classes, to verify enrollment appointment times, and to view real-time enrollment counts.

Other features include a notifications section for important announcements; a subscriptions section to access online information from newspapers, journals, or magazines or from University departments, clubs, and organizations; a personal calendar; and links to UCLA online resources, including the Schedule of Classes and UCLA General Catalog. WebMail provides students an intuitive way to access private e-mail accounts from any computer through MYUCLA.

Students access the site using their UCLA Logon ID and password. MYUCLA operates Sunday from noon through Tuesday at 1 a.m. and Tuesday through Saturday from 6 a.m. to 1 a.m., including holidays. See https://my.ucla.edu or call (310) 206-4525.

**Veterans Affairs Services**

The Veterans Affairs coordinator, 1113 Murphy Hall, (310) 825-5391, provides information for veterans and eligible dependents about veterans’ educational benefits, tutorial assistance, and the work-study program; issues fee waivers to dependents of California veterans who are deceased or disabled because of service-connected injuries and who meet the income restrictions in Education Code Section 10652; and certifies student status for recipients of educational benefits under VA chapters 30-32, 35, and 1606.

**SERVICES FOR HEALTH AND SAFETY**

**Arthur Ashe Student Health and Wellness Center**

The Ashe Student Health and Wellness Center in Westwood Plaza (310-825-4073) 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 pharmacy, optometry, radiology, and laboratory. 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 University of California Student Health Insurance Plan (UCSHIP) or other plans that provide adequate coverage. Adequate medical insurance is a condition of registration. See Registration in the Undergraduate Study and Graduate Study sections of this catalog.

Consult the Ashe Center website for specific information on its primary care, women’s health, immunization, health clearance, optometry, travel, and mind-body clinics, as well as on dental care available to students at discounted rates. See http://www.studenthealth.ucla.edu.

For emergency care when the Ashe Center is closed, students may obtain treatment at the UCLA Medical Center Emergency Room on a fee-for-service basis. If students withdraw during a school term, all Ashe Center services continue to be available on a fee basis for the remainder of that term, effective from the date of withdrawal.

**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 or sexually assaulted—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. See http://www.counseling.ucla.edu.

CAPS is also a designated Sexual Harassment Information Center, as well as a campus Harassment Information Center, available to all UCLA students (see Harassment in the Appendix for more information).

STUDENT SAFETY AND SECURITY

Dial 911 from any campus phone for police, fire, or medical emergencies. For nonemergency information, contact the UCLA Police Department. See http://map.ais.ucla.edu/go/police or call (310) 825-1491.

The police department provides a free Campus Escort Service every day of the year from dusk to 1 a.m. Uniformed community service officers (CSOs)—specially trained UCLA students—walk students, staff, faculty, and visitors between campus buildings, local living areas, or Westwood Village. See http://map.ais.ucla.edu/go/1000806 or call (310) 794-WALK.

The free Evening Van Service provides a safe, accessible, and convenient mode of transportation around campus at night. Vans provide transportation between Ackerman Union, westside apartments, Lot 36, campus buildings, and residence halls Monday through Thursday from 6 to 11 p.m. See http://map.ais.ucla.edu/go/1001008 or call (310) 825-1493 to request pick up from most of the drop-off locations.

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. See http://www.counseling.ucla.edu/care/ or call (310) 825-0768.

Cardiopulmonary resuscitation (CPR) and basic emergency care courses are offered by the Center for Prehospital Care and can be organized most days and times. See https://www.cpc.mednet.ucla.edu or call (310) 267-5959.

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 University 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. See http://www.ehs.ucla.edu or call (310) 825-5689.

ASSOCIATED STUDENT SERVICES

Founded when UCLA opened in 1919, the Associated Students UCLA (ASUCLA) provides services to the campus community through student government, student media, and services and enterprises. Every registered UCLA student is a member of ASUCLA. See http://asucla.ucla.edu.

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 from the Student Fee Advisory Committee to the committees of the Academic Senate. It sponsors graduate student orientation, the Graduate Student Resource Center, various graduate student journals, programs, and social events, including the Melnitz Movies film program. See http://gsa.asucla.ucla.edu or call (310) 206-8512.

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. See https://www.usac.ucla.edu.

The breadth of USA activities offers an invaluable service to the campus and surrounding communities and provides students the opportunity to participate in and

UCLA EMERGENCY NUMBERS

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police, Fire, or Medical Emergency</td>
<td>911</td>
</tr>
<tr>
<td>UCLA Police Department (24 hours)</td>
<td>(310) 825-1491</td>
</tr>
<tr>
<td>UCLA Emergency Medicine Center (24 hours)</td>
<td>(310) 267-8400</td>
</tr>
<tr>
<td>Campus Escort Service (dusk to 1 a.m.)</td>
<td>(310) 794-WALK</td>
</tr>
</tbody>
</table>

Dial 911 from any campus phone for police, fire, or medical emergencies. For nonemergency information, contact the UCLA Police Department. See http://map.ais.ucla.edu/go/police or call (310) 825-1491.
benefit from these endeavors. For example, USA programs benefit both campus and community through programs to tutor youths and adults, address health needs of ethnic communities, combat poverty and homelessness, and better the environment.

Student government also supports approximately 20 student advocacy groups on campus from the African Student Union to the Vietnamese Student Union.

CAMPUS EVENTS

Each year approximately 40,000 students, faculty, and staff attend programs of the Campus Events Commission (CEC), including a low-cost film program, a 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 programs—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 name performing artists like Rage Against the Machine or A Tribe Called Quest to UCLA for free and affordably priced concerts. See http://campuseventsblog.com or call (310) 825-1958.

The Cultural Affairs Commission sponsors art exhibits in the Kerckhoff Hall Art Gallery, the JazzReggae Festival, Bruin Bash, Hip Hop Explosion, and Worldfest. See http://www.culturalaffairsla.com or call (310) 825-6564.

PUBLICATIONS, WEB, AND BROADCAST MEDIA

Publications and media provide 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. See http://apply.uclastudentmedia.com or call (310) 825-2787.

Daily Bruin

The Daily Bruin, with a circulation of 10,000, 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, and radio reporters, as well as advertising sales representatives and marketing account executives. New staff members are welcome every quarter. See http://dailybruin.com or call (310) 825-9898.

Textbooks

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Talib (http://al-talib.org), Fem (http://femmagazine.com), Ha’Am (http://haam.org), La Gente (http://lagente.org), Nommoro (http://nominonewsmag.word press.com), OutWrite (http://outwritenewsmag.org), and Pacific Ties (http://pacificties.org) deal respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African American; lesbian, gay, bisexual, and transgender; 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 website at http://www.bruinwalk.com. Features include UCLA professor reviews, used book trading, reviews of apartments near UCLA, and a campus calendar.

UCLAradio

UCLAradio broadcasts live over the Internet from http://uclradio.com and features college alternative, hip-hop, jazz, and world music. It also covers select Bruin football, basketball, and baseball games and a lineup of sports talk shows. Studios are in Ackerman Union, (310) 825-9999; all positions, including on-air, news staff, and advertising representatives, are open to students.

UCLA Yearbook

The UCLA yearbook, BruinLife, is one of the largest student publication efforts on campus. Available each June, 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. See http://www.bruinlife.com or call (310) 825-2640.

UCLA RESTAURANTS

ASUCLA operates more than a dozen restaurants and two 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. For hours and locations of all the restaurants, see http://asucla.ucla.edu/ucla-restaurant-hours/.

UCLA STORE

In terms of sales, the UCLA Store is the biggest college store in the nation. There are five locations on campus. Author signings, sales, and other special events are announced in the Daily Bruin or on the UCLA Store site. See http://shop.uclastore.com.

The UCLA Store—Ackerman Union, (310) 825-7711, has eight departments. The Textbooks department 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 the UCLA Faculty Authors section. The Computer Store carries personal computers, peripherals, accessories, and software at low academic prices. Essentials offers school and office supplies, including consumables for computer printers. BearWear specializes in UCLA emblematic merchandise. Fast Track carries active sportswear for men and women, plus an extensive Clinique counter. Market is a convenience store, with snacks, health and beauty aids, gifts, and greeting cards.

The UCLA Store has five campus locations. Textbooks is one of eight departments in the main Ackerman Union store.
New freshman and transfer students who are admitted for Fall Quarter and apply by the deadline are guaranteed housing. Graduate student housing is also available.

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, http://shop.uclastore.com/c-522-grad-portraits.aspx, (310) 206-8433, for their senior yearbook portraits. Graduation Etc., http://shop.uclastore.com/c-320-graduation-etc.aspx, (310) 825-2587, sells and rents caps, gowns, and hoods for degree ceremonies and provides announcements, diploma mounting, and other graduation-related products and services.

On the lighter side, ASUCLA operates Game On, (310) 794-2122, with PC, Xbox 360, PS3, and Wii electronic games.

The UCLA BruinCard is a mandatory student identification card that can electronically confirm student identification, transaction privileges, and access to on-campus facilities.

To apply for on-campus housing, the application must be completed online by the deadlines set by the housing office. See http://map.ais.ucla.edu/go/1001744. Students applying for Winter or Spring Quarter are assigned on a space-available basis in the order applications are received.

Per-person costs for the academic year start at $11,225. Consult the housing office for the range of price options. See http://map.ais.ucla.edu/go/1005183.

The Office of Residential Life is responsible for student conduct in residence halls and suites and provides professional and student staff members to counsel residents on programming and other problems. See https://www.orl.ucla.edu or call (310) 825-3401.

The office is also a designated Sexual Harassment Information Center and Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information).

Off-Campus Housing

Within walking distance of campus, the University maintains five off-campus apartment buildings for full-time single transfer and upper division students. Apartments vary from singles to two-bedroom units, with bedrooms usually shared by two or three students. Not all types of apartment spaces are available to entering students. See http://map.ais.ucla.edu/go/1001723 or call (310) 983-1300.

Off-campus apartments for married, single-parent, and single graduate students include unfurnished studio, one-, two-, and three-bedroom units, some located within walking distance of campus and others about five miles from campus. Assignment to several of the apartment units is by wait list; students should not wait until they have been accepted to UCLA to apply. Verification of marriage and/or copies of children’s birth certificates must accompany applications for married and family housing. See http://map.ais.ucla.edu/go/1001376 or http://map.ais.ucla.edu/go/1001744 or (310) 983-1300.

The UCLA Community Housing Office provides information and listings for non-University-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. The office also has bus schedules, area maps, and neighborhood profiles. A current BruinCard or letter of acceptance is required for service. See http://www.cho.ucla.edu or call (310) 825-4491.

Many of the fraternities and sororities at UCLA own chapter houses. Complete information and membership requirements are provided by Fraternity and Sorority Relations. See http://www.greeklife.ucla.edu/housing.html or call (310) 825-6322.

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. See http://www.ucu.org or call (310) 477-6628.

The UCLA Bruins shop—Health Sciences, http://shop.uclastore.com/c-321-health-sciences.aspx, (310) 825-7721, specializes in books and supplies for students in dentistry, medicine, nursing, public health, and related areas. UCLA Store—Lu Valle Commons, (310) 825-7238, 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, and Hill Top Shop in Sunset Village, are convenience store locations.

Services for Student Life

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

Accommodations

The UCLA Housing website 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. See http://www.housing.ucla.edu or call (310) 206-7011.

On-Campus Housing

Many students, especially those in their first year, choose to live on campus. Besides the convenience, it’s 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 is coed and within walking distance to classrooms.

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

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Off-campus apartments for married, single-parent, and single graduate students include unfurnished studio, one-, two-, and three-bedroom units, some located within walking distance of campus and others about five miles from campus. Assignment to several of the apartment units is by wait list; students should not wait until they have been accepted to UCLA to apply. Verification of marriage and/or copies of children’s birth certificates must accompany applications for married and family housing. See http://map.ais.ucla.edu/go/1001376 or http://map.ais.ucla.edu/go/1002103 or call (310) 398-4692.

The UCLA Community Housing Office provides information and listings for non-University-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. The office also has bus schedules, area maps, and neighborhood profiles. A current BruinCard or letter of acceptance is required for service. See http://www.cho.ucla.edu or call (310) 825-4491.

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BruinCard

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Per-person costs for the academic year start at $11,225. Consult the housing office for the range of price options. See http://map.ais.ucla.edu/go/1005183.

The Office of Residential Life is responsible for student conduct in residence halls and suites and provides professional and student staff members to counsel residents on programming and other problems. See https://www.orl.ucla.edu or call (310) 825-3401.

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The UCLA Community Housing Office provides information and listings for non-University-owned apartments, cooperatives, private apartments, roommates, rooms in private homes, and short-term housing. Rental listings are updated daily. The office also has bus schedules, area maps, and neighborhood profiles. A current BruinCard or letter of acceptance is required for service. See http://www.cho.ucla.edu or call (310) 825-4491.

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The University Credit Union has an office in West Los Angeles and a branch office in Ackerman Union. See http://www.ucu.org or call (310) 477-6628.
status and eligibility for services. Supportive photo identification, such as a driver's license or passport, is required when the card is issued.

The primary benefit of the BruinCard 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 card; library card; recreation card; debit card (if activated) for purchases at campus stores and restaurants on and off campus; and access to the Santa Monica and Culver City bus lines.

Students with a hold from an office with which they have an outstanding obligation (financial, academic, or administrative) may not receive services until the hold is released by the initiating office. For details on outstanding holds and initiating offices, check MyUCLA at https://my.ucla.edu.

The BruinCard center is located in 123 Kerckhoff Hall. See https://secure.bruincard.ucla.edu/bcw/web/home.aspx to check account balance, make deposits, view recent transactions, and report lost or stolen cards or call (310) 825-2356.

**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 provides services to all UCLA students, including specialized services for transfer and reentry students, students who are transitioning out of foster care, student parents, and veterans. Additional offerings include workshops and academic courses to help students develop practical skills and knowledge to succeed at UCLA. The BRC also houses the Veterans Resource Office (http://www.veterans.ucla.edu, 310-206-6915 or 206-3819) which offers services specifically designed to assist students who are U.S. armed forces veterans or current military members. See http://www.brc.ucla.edu or call (310) 825-3945.

**CAREER CENTER**

The UCLA Career Center, located in the Strathmore Building, offers career planning and employment assistance free to all UCLA students. See http://career.ucla.edu or call (310) 206-1915.

**Career Planning and Exploration**

Career counselors provide assistance in selecting a major, setting realistic career goals, investigating career options, evaluating graduate and professional school programs, and developing skills to conduct a successful job search. Information on local, national, and international internship opportunities can assist students in exploring different career possibilities, making important professional contacts, and obtaining valuable on-the-job experience. The Career Center library offers a collection of over 3,000 resources, including career-related books and directories, videos, periodicals, and other materials. In addition, the Career Center offers workshops on a variety of career-related topics; many are repeated several times each term.

**Employment Assistance**

Students who need extra money to finance their college degree can find a large volume of part-time, temporary, and seasonal employment leads advertised through the Career Center’s 24-hour BruinView™ online listings. Students and recent graduates looking for full-time, entry-level career positions may access hundreds of current professional, managerial, and technical openings in numerous career fields. Seniors and graduate students may participate in campus interviews for positions in corporations, government, not-for-profit organizations, elementary and secondary schools, community colleges, and four-year academic institutions. Annual career fairs and special events offer additional opportunities to meet potential employers.

**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, 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. See http://tickets.ucla.edu or call (310) 825-2101.

**CHILD CARE**

UCLA Early Care and Education (ECE) operates three child care centers near the University and student housing. Care is provided 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. See http://www.ece.ucla.edu or http://map.ais.ucla.edu/go/1001644 or call (310) 825-5086.

The ECE Child Care Resource Program helps parents make off-campus child care arrangements and coordinates a Choosing Child Care Forum each month. See http://map.ais.ucla.edu/go/1000688 or call (310) 825-8474.

The ECE University Village Kindergarten Program offers a multicultural, full-day science-based curriculum for five-year-old children of UCLA students, faculty, and staff. It also offers summer enrichment activities. See http://map.ais.ucla.edu/go/1003991 or call (310) 915-5827.

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. See http://www.upns.info or call (310) 397-2735.

**DEAN OF STUDENTS**

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 University policies and procedures, including grievance procedures regarding student records, discrimination, and student debts.

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The campus offers multiple services to support students who are veterans and members of the military.
In addition, 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 Office of the Dean of Students may also administer campus discipline and enforce 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 in the Appendix for more information. See http://www.deanofstudents.ucla.edu or call (310) 825-3871.

INTERNATIONAL STUDENT SERVICES

International student services in Bradley Hall provide support for UCLA’s international community, particularly for nonimmigrant students. An orientation program helps international students plan their academic objectives, and 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 is a designated Sexual Harassment Information Center for international students and a Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information). In addition, the center provides visa assistance for faculty members, researchers, and postdoctoral scholars. See http://www.internationalcenter.ucla.edu or call (310) 825-1681.

LESBIAN GAY BISEXUAL TRANSGENDER CAMPUS RESOURCE CENTER

The Lesbian Gay Bisexual Transgender (LGBT) Campus Resource Center in the Student Activities Center provides 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 LGBT community. See http://www.lgbt.ucla.edu or call (310) 206-3628.

OFFICE FOR STUDENTS WITH DISABILITIES

The Office for Students with Disabilities (OSD) in Murphy Hall provides 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 University policies. Services include campus orientation and accessibility, note takers, reader service, sign language interpreters, Learning Disabilities Program, 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 assistance, 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. See http://www.osd.ucla.edu or call (310) 825-1501, TDD (310) 206-6083, fax (310) 825-9656.

For information on the Disabilities and Computing Program, see Services for Study under Student Services earlier in this section.

OFFICE OF OMBUDS SERVICES

The Office of Ombuds Services responds to issues and concerns from students, staff, faculty, and administrators. Acting impartially, ombuds persons 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 by the visitor, assist in resolving an issue through mediation (including sexual harassment cases). The office is in the Strathmore Building. See http://www.ombuds.ucla.edu or call (310) 825-7627.

The office is also a designated Sexual Harassment Information Center for students, faculty, and staff, as well as a campus Harassment Information Center available to all UCLA students (see Harassment in the Appendix for more information).

PARKING AND COMMUTER SERVICES

Parking, ridesharing, and other transportation options and services are offered through UCLA Transportation Services. There are several commuting alternatives for students to get to and from campus without driving their cars. Both full-time and part-time riding opportunities are available.

Commuter Services

The Bruin Commuter Services (BCS) Office is the best place for information on transportation options. Many students form or join existing UCLA carpools or vanpools. Students can use Zimride (http://www.zimride.com/ucla), a Facebook application, to find one-time rides or create a carpool with fellow Facebook users. More than 160 vanpools (https://main.transporation.ucla.edu/getting-to-ucla/vanpool) commute to UCLA from 85 Southern California communities, and full- and part-time riding opportunities are available. The Bruin Commuter Club (https://main.transportation.ucla.edu/getting-to-ucla/bruin-commuter-club) offers special benefits and incentives to eligible UCLA students who ride public transit, a UCLA vanpool, or carpool with two other persons. Students may also rent a car through Zipcar (http://www.zipcar.com/ucla).

Information on these and other commuting options, including an extensive network of public transit, are available online or at the BCS Office in the Strathmore Building at Strathmore Drive and Westwood Plaza.
Through Student Legal Services in Murphy Hall, tenant relations; accident and injury problems; legal problems, including those related to landlord/supervision of attorneys. They help students resolve problems or questions about their legal rights. can get currently registered and enrolled students with legal 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;

**STUDENT LEGAL SERVICES**

Students interested in purchasing parking should access the student parking application at https://www.transportation.ucla.edu/appmain.htm using their UCLA Logon ID to see personalized parking options based on campus data (class standing, housing status, graduate student major, etc.). Parking offers are prioritized according to class standing listed in the student database as follows: graduate students, followed by seniors and juniors, followed by sophomores and first-year students. Within each category, priority is given to students who carpool. Students must be registered for the current term to apply for parking.

All commuter students qualify for parking. Students living within ZIP code 90024 must pay the residence hall parking rate. Students living on campus (excluding Regents’ Scholars) must have local, verifiable, current, continuous paid employment, paid internship, or an academic apprenticeship to qualify for parking.

Carpool groups that apply on time are given priority for carpool permits at a discounted rate. All members of the carpool must qualify under the carpool parking requirements at https://main.transportation.ucla.edu/campus-parking/students/student-carpool-permit-requirements.

Students are encouraged to apply on time and follow all application and payment guidelines to increase their chances of receiving a permit. Permits are not guaranteed. Students who are not offered a parking assignment during a given term must reapply for parking in a subsequent term. Student parking applications, payment deadlines, and related information are available on the student parking permits webpage at https://main.transportation.ucla.edu/campus-parking/students.

Students with permanent disabilities who have disabled persons’ placards or DMV-issued disabled persons’ license plates, and students with short-term disabilities, may apply to the Office for Students with Disabilities for parking assignments and on-campus transportation assistance. See http://www.osd.ucla.edu/docs/Publications/Guidelines/Parking.html or call (310) 825-1501.

Parking permits and access cards to campus lots and structures are not transferable and may be purchased only from UCLA Parking Services. Resale is prohibited and subjects both buyer and seller to disciplinary action.

**POST OFFICES**

Campus mail is handled by UCLA Mail, Document, and Distribution Services, which offers full-service document processing and delivery for the campus community. See https://www.mdds.ucla.edu or call (310) 825-0374.

ASUCLA operates a U.S. Postal Service express post office on A Level in Ackerman Union. Call (310) 206-5596 for more information.

**STUDENT LEGAL SERVICES**

Through Student Legal Services in Murphy Hall, tenant relations; accident and injury problems; legal problems, including those related to landlord/tenant relations; accident and injury problems;

**STUDENT ACTIVITIES**

The opportunities to participate in extracurricular activities at UCLA are virtually unlimited and provide 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) was established in 1970 by concerned students, staff, and faculty who felt that students’ educational experiences at UCLA should expand outside the classroom and into Los Angeles.

Currently, the CPO houses 24 student-initiated community service projects that provide 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 underserved areas of Southern California who attend colleges and universities, and six student-initiated retention projects that seek to ensure that all students who enter UCLA actually graduate. CPO is unique because it provides a multicultural and ethnically diverse environment to the UCLA campus. See http://www.cpo.ucla.edu or call (310) 825-5969.

**FRATERNITY AND SORORITY RELATIONS**

Fraternities and sororities have been at UCLA since the early 1920s. Today UCLA is home to more than 68 national and local Greek-letter organizations that make up one of the largest Greek systems on the West Coast.

Fraternity and Sorority Relations (FSR) interprets University policies, procedures, and regulations and acts as a liaison between established Greek organizations and the University. It coordinates Greek-letter social organizations that participate in programs such as the Greek Leadership Conference, Membership Recruitment...
ABOUT UCLA

STUDENT ORGANIZATIONS, LEADERSHIP, AND ENGAGEMENT

UCLA has over 1,000 different organizations recognized by Student Organizations, Leadership, and Engagement (SOLE—formerly the Center for Student Programming)—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. See http://www.studentactivities.ucla.edu or call (310) 825-7041.

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 Art of Performance at UCLA.

DEPARTMENT EVENTS

The Ethnomusicology Department provides students with the opportunity to perform in various world music and jazz ensembles that provide concerts listed in the department’s schedule of events. See http://www.ethnomusic.ucla.edu.

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’s annual Design Showcase West and Film Festival is a week-long celebration of film, digital media, animation, screenwriting, and acting that features everything from performance art to the classics. See http://www.tft.ucla.edu.

The Music Department features performances by ensembles ranging from music theater to opera. In addition, the Gluck Outreach Program and Music Partnership program provide community outreach through free performances throughout the Los Angeles and Southern California region. See http://www.music.ucla.edu.

The World Arts and Cultures/Dance Department presents events and concerts involving departmental faculty members, guest artists, and students. Student performances include M.F.A. 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. See http://www.wacd.ucla.edu.

CENTER FOR THE ART OF PERFORMANCE AT UCLA

Since 1937, the Center for the Art of Performance at UCLA has served as the 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 Paul Dresher Ensemble, American Youth Symphony, Kronos Quartet, Chick Corea, and Philip Glass Ensemble. Subject to availability, discount tickets are offered to students, faculty, and staff. See http://cap.ucla.edu or call (310) 825-4401.

SPORTS AND ATHLETICS

Athletics play a major role in the University’s mission to provide 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 and ranks first in the U.S. in the number of National Collegiate Athletic Association (NCAA) championships won (111). In 2012-13 the UCLA athletic programs (men and women) placed third in the Directors Cup national all-around excellence survey; and the men placed first in the Capital One Cup. In the 23-year history of the former USA Today survey, the men’s program placed first 11 times, while 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). See http://www.uclabruins.com.

UCLA also has produced a record number of professional athletes such as Troy Aikman, Eric Karros, Kevin Love, Reggie Miller, Natalie Williams, and Corey Pavin and Olympians such as gold medalists Lisa Fernandez, Karch Kiraly, Gail Devers, Peter Vidmar, Dot Richardson, and Jackie Joyner-Kersee.

ATHLETIC FACILITIES

The major indoor arena at UCLA is the famed Pauley Pavilion, which seats almost 14,000 for UCLA basketball, volleyball, and gymnastics events. It was the site of the 1984 Summer Olympics gymnastics competition. Immediately adjacent, Drake Stadium is the home of UCLA track and field and soccer competitions and site of many outdoor events, including the U.S. Olympic Festival 1991. The Spieker Aquatic 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 the home of the championship 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.

MEN’S INTERCOLLEGIATE SPORTS

UCLA is a member of the Pacific-12 Conference, which includes Arizona State University; University of Arizona; University of California, Berkeley; University of Colorado; Oregon State University; University of Oregon; Stanford University; University of Southern California; University of Utah; Washington State University; and the University of Washington. UCLA teams have won an overall total of 72 NCAA men’s championships—second highest in the nation—including 19 in volleyball, 16 in tennis, 11 in basketball, eight each in track and field and water polo, four in soccer, two each in golf and gymnastics, and one each in baseball and swimming. Students can participate on the varsity level in football, basketball, track, baseball, tennis, volleyball, water polo, golf, soccer, and cross-country. Call (310) 825-8699 for further information.

WOMEN’S INTERCOLLEGIATE SPORTS

With 11 different varsity sports, the UCLA women’s program is one of the most extensive in the country, and UCLA has played an important role in establishing women’s sports as part of the NCAA. Women’s teams have won an overall total of 39 NCAA titles—second highest in the nation—including 11 in softball, seven in water polo, six in gymnastics, five in track and field, four in volleyball, three in golf, two in tennis, and one in soccer. Other nationally ranked teams are those in basketball, swimming, and cross-country. Call (310) 825-8699 for further information.

UCLA RECREATION

To help students learn new skills, meet people with similar interests, relieve stress, and increase fitness, the Department of Cultural and Recreational Affairs (CRA) oversees programs from intramural sports to outdoor adventures. See http://www.recreation.ucla.edu or call (310) 825-3701.

INTRAMURAL AND CLUB SPORTS

The UCLA Intramural Sports Program, (310) 267-5416, consists of team, dual, and individual sports competition in tournament or league play. Over 1,800 teams and 8,000 participants compete throughout the year in various sports activities ranging from basketball to weight lifting. UCLA students and recreation membership holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

The Club Sports Program, (310) 267-5416, offers 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. Recognized teams exist in archery, badminton, baseball, boxing, Brazilian jiu-jitsu, cycling, dragon boat, fencing, figure skating, golf, gymnastics, ice hockey, Japanese martial arts, jeet kune do, kendo, kung fu, men’s and women’s lacrosse, powerlifting, quidditch, men’s rowing, men’s and women’s rugby, running, sailing, sambo, shikendo, snowboarding and skiing, men’s and women’s soccer, softball, surfing, swimming, table tennis, taekwondo, tennis, triathlon, men’s and women’s ultimate, men’s and women’s volleyball, men’s and women’s water polo, waterskiing, wrestling, and wushu.

OUTDOOR ADVENTURES

Outdoor Adventures, (310) 206-1252, 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 camping, rock climbing, scuba diving, windsurfing, canoeing, kayaking, and hiking.

CLASS PROGRAMS

Noncredit recreation classes in arts, dance, fitness sports, kayaking, martial arts, outdoor adventures, rock wall, rowing, sailing, surfing, swimming, tennis, water aerobics, windsurfing, yoga, and a variety of group fitness programs are offered for beginning and intermediate levels. Private lessons in tennis, fitness activities, swimming, racquetball, martial arts, and golf 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, CRA offers access to many facilities. The John R. Wooden Recreation and Sports Center has multiple gymnasia, handball/racquetball/squash courts, a weight training facility, rock climbing wall, exercise/dance and martial arts studios, and a games lounge. The 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, Sycamore Tennis Courts, Los Angeles Tennis Center, Intramural Fields, Student Activities Center, and Kaufman Hall for recreational sports and activities.
YOUTH AND FAMILY PROGRAMS

About UCLA Youth and Family Programs, (310) 825-3701, offer exciting activities for children 5 to 17 years old. Summer programs include Bruins on Broadway for ages 9 to 14, Bruins on Water for ages 8 to 10, Camp Adventure for ages 11 to 15, Camp Bruin Kids for ages 5 to 10, Camp Explore for ages 7 to 10, Camp Voyager for ages 11 to 15, Counselors in Training for ages 14 to 17, Sunset Sleepover for ages 7 to 12, Teen Programs for ages 11 to 15, group and private lessons, and the Summer Family Entertainment Series. Activities combine play with skill development and deepen the fun in learning.

UCLA ALUMNI ASSOCIATION

Celebrating 80 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 programs such as Beat SC Bonfire and Rally, I Love UCLA Week, Dinners for 12 Strangers, Spring Sing, UCLA Alumni Day, senior events, class reunions, career events, and the scholarship program.

The association offers many benefits and services, including career services. Members make friends, pursue lifelong learning, save money, and make a difference. UCLA graduates, Bruin parents, and friends of the University are invited to take advantage of all the association has to offer. Offices are in the James West Alumni Center. See http://alumni.ucla.edu. Call (310) 825-2586 or, outside Los Angeles County, (800) 825-2586 for further information.
UCLA Undergraduate Admission (UA) invites prospective students to visit UCLA for individual or group tours of the campus. Reservations are required. See http://www.admission.ucla.edu/tours.htm or call (310) 825-8764 or 206-3719.

**UNDERGRADUATE ADMISSION**

Undergraduate Admission  
1147 Murphy Hall  
(310) 825-3101  
http://www.admission.ucla.edu

Prospective UCLA 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.

**APPLYING FOR ADMISSION**

To apply for admission to UCLA, complete the UC Application for Admission and Scholarships. Applicants may apply for the Fall Quarter at http://admission.universityofcalifornia.edu/.

One application is used for the nine UC campuses with undergraduate programs. Students apply to one UC campus for a nonrefundable application fee; an additional fee is charged for each additional campus.

**WHEN TO APPLY**

All majors and programs in the College of Letters and Science, Henry Samueli School of Engineering and Applied Science, School of the Arts and Architecture, School of Nursing, and School of Theater, Film, and Television are open for Fall Quarter. The application filing period is November 1-30 of the prior year. See http://www.admission.ucla.edu/prospect/applying.htm for up-to-date information on application procedures.

**NOTIFICATION OF ADMISSION**

The UC Undergraduate Application Processing Service e-mails notices to acknowledge receipt of applications. Subsequently, UCLA Undergraduate Admission notifies students of the admission decision. Fall Quarter freshman applicants are notified beginning in late March and transfers 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 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. High school honors level and Advanced Placement 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 the applicants’ academic and personal circumstances, extracurricular and volunteer experiences, and the overall strength of the UCLA applicant pool. For details, see http://www.admission.ucla.edu.

**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 requirement, scholarship requirement, and examination requirement.

**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. Each
To be considered for admission as a freshman, students must meet three main requirements: the subject requirement, the scholastic requirement, and the examination requirement. To be competitive, applicants need to present an academic profile much stronger than that represented by the minimum admission requirements.

**Subject Requirement**

<table>
<thead>
<tr>
<th>Subject Requirement</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>a. History/Social Science</td>
<td>2 years</td>
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<tr>
<td>b. English</td>
<td>4 years</td>
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<tr>
<td>c. Mathematics</td>
<td>3 years</td>
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<tr>
<td>d. Laboratory Science</td>
<td>2 years</td>
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<tr>
<td>e. Language Other than English</td>
<td>2 years</td>
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<tr>
<td>f. Visual and Performing Arts</td>
<td>1 year</td>
</tr>
<tr>
<td>g. College Preparatory Electives</td>
<td>1 year</td>
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</table>

**Scholarship 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.

**Examination Requirement**

All freshman applicants must submit scores from either the ACT Assessment plus Writing Tests score or the SAT Reasoning Test score.

The tests should be taken by December of the senior year, as they are part of the review process. Students should request that test results be sent directly to UCLA when they take the test.

**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 to the student. Among other factors, holistic evaluation specifically considers academic grade-point average; performance on standardized tests; 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 http://www.admission.ucla.edu/Prospect/Adm_f.htm for the most complete and up-to-date information.

**ADMISSION AS A TRANSFER STUDENT**

Students are considered transfer applicants if they have been a registered student (1) at another college or university or (2) in college-level extension courses. (This does not include attending a summer session immediately following high school graduation.) Students may not disregard their college record and apply for admission as a freshman.

In accordance with the California Master Plan for Higher Education, first preference is given to California community college applicants. Applicants transferring from other UC campuses are next in priority, followed by applicants transferring from other colleges and universities. Each application receives a holistic 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.

For details on transfer admission requirements, refer to the guidelines in the application. See http://www.admission.ucla.edu/prospect/Adm_tr/tradms.htm.
INTERCAMPUS TRANSFERS
Undergraduate students registered in a regular session at any University of California campus (or those previously registered who have not since registered at any other school) may apply for transfer to another campus of the University. Submit the UC Application for Transfer Admission and Scholarships with the required application fees. The filing periods are the same as those for new applicants. Students who have attended another UC campus and wish to be considered for admission to UCLA must have been in good standing when they left that campus. Intercampus transfers are not automatic; students must compete with all other applicants.

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

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

College credit for examinations given by national testing services is generally not allowed, except for the AP Examinations given by the College Board and the International Baccalaureate higher-level examinations. See http://www.admission.ucla.edu/trcredit.htm.

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.

Proficiency in English. 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 whether students should complete the English as a Second Language (ESL) requirement, prior to satisfying the Entry-Level Writing requirement, in order to demonstrate sufficient command of English. If held for the ESL requirement, students must complete the requirement by taking the designated ESL courses.

In addition, they are advised to take the Test of English as a Foreign Language (TOEFL) as a preliminary means of testing their ability. Make arrangements for this test by contacting TOEFL/TSE Publications, P.O. Box 6151, Princeton, NJ 08541-6151, (609) 771-7100 or at http://www.ets.org. Have the test results sent directly to UCLA Undergraduate Admission.

SECOND BACHELOR’S DEGREE
By policy, second bachelor's degrees are not generally granted.

REGISTRATION
Registrar's Office
1113 Murphy Hall
(310) 825-1091, option 6
http://www.registrar.ucla.edu

Registration consists of paying fees and enrolling in classes.
1. Registration fees and other University charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.
2. Enrollment in classes is completed through MyUCLA at https://my.ucla.edu.

Students must complete both processes by the established deadlines to be officially registered and enrolled for the term.

PAYING FEES
Details on fee payment, enrollment procedures, and deadlines are in the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

E-BILL
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. MyUCLA also provides a link to important communications from the University regarding registration and University policies. Students can pay their BruinBill account electronically using electronic checks with no fee, or 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. Each entering and readmitted student is required to submit a Statement of Legal Residence. Students classified as nonresidents of California must pay annual 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 the Appendix.
Fees are subject to change without notice by The Regents. See http://www.registrar.ucla.edu/fees/ for updates. 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.

**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 labs, and software. For more information, see http://www.iei.ucla.edu.

**COURSE MATERIALS AND SERVICES FEES**

The College of Letters and Science and each school are authorized to assess course materials and services fees. Some course materials and services 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 for a Late Add enrollment in a course after the third week are required to pay the course materials and services fee, which is billed through BruinBill, for the entire term.

For fee amounts and updates, see http://www.registrar.ucla.edu/fees/.

**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. A full list of miscellaneous fees is posted at http://www.registrar.ucla.edu/fees/miscfee.htm.

**STUDENT HEALTH INSURANCE**

All UCLA 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 medical/health insurance plan must be maintained during all registered terms. UCSHIP components are medical, vision, dental, and behavioral health services.

The UCSHIP fee is billed each term along with other UCLA fees. UCSHIP fulfills all of the requirements mandated for a qualified medical/health insurance plan as defined by the University. The Ashe Student Health and Wellness Center is the primary healthcare provider for UCSHIP and is where all nonemergency medical care must be initiated for UCSHIP claim payment consideration. See http://www.studenthealth.ucla.edu.

**Waiving UCSHIP**

Students may waive UCSHIP if they (1) maintain active enrollment in a qualified medical/health insurance plan that meets all established requirements, (2) apply for a UCSHIP waiver within established deadlines each term, and (3) correctly complete the online UCSHIP waiver form.

Students must apply for a UCSHIP waiver online. A pre-waiver worksheet is available to assist students before they complete an actual waiver. See the Ashe Center website for details, including a definition of qualified private medical/health insurance. Click the Insurance tab on http://www.studenthealth.ucla.edu and select the appropriate waiver link.

**Deadlines for Waiving UCSHIP**

Third-party individuals may not waive UCSHIP for a student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. The Fall UCSHIP waiver is available between July 1 and the student fee payment deadline. If the 20th falls on a weekend or holiday, the due date is the last business day prior to the 20th. Deadlines are strictly enforced. There are no refunds after the deadline.

The schedule for waiving UCSHIP is as follows:

- **Fall Quarter**
  - September 1–19

- **Winter Quarter**
  - December 1–19

- **Spring Quarter**
  - March 1–20

The UCSHIP Fall Quarter waiver website is available between July 1 and September 19, 2014. The above information serves as official notice of the UCLA mandatory medical/health insurance requirement. All students are responsible for providing complete and accurate information that must be submitted by the stated deadlines.

**HEPATITIS B VACCINATION REQUIREMENT**

California law requires students 18 years and younger to provide proof of immunity to Hepatitis B prior to
entering and enrolling at the University of California. The Hepatitis B vaccine is a three-shot series. If students have already received the series in their lifetime, there is no need to repeat it. To satisfy the requirement, all students must log in and complete the Hepatitis B questionnaire at http://www.studenthealth.ucla.edu by the beginning of their first term at UCLA.

Students who have not yet completed the series are granted a two-term grace period to comply. Failure to satisfy the requirement by the third term results in a hold on student records, whereby students cannot enroll in classes or use any University services. For more information, call (310) 825-4695.

**FEE REFUNDS**

Students who formally withdraw from the University may receive partial refunds of fees. For information on withdrawal, see the Academic Policies section of this catalog. Consult the Schedule of Classes for exact refund amounts and dates.

**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 the University 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 approved for enrollment in 10 units or less by the dean of their program—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.

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 the student services, student union, Wooden Center, student programs, activities, and resources complex (SPARC), or Undergraduate Students Association fee.

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

Full-time University 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.

**ENROLLING IN CLASSES**

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

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

The Schedule of Classes (http://www.registrar.ucla.edu/schedule/) contains listings of class times, meeting rooms, instructors, and all information necessary for enrolling in classes. Use the Schedule and academic counseling to assemble a program of courses.

**MYUCLA ENROLLMENT**

Students enroll in classes through MyUCLA, which is accessed at https://my.ucla.edu. The site walks students through the enrollment procedure.

Students are assigned specific times—called enrollment appointments—when they are allowed to enroll. Use MyUCLA to determine enrollment appointments.

Also use MyUCLA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, joining the wait list for a class and checking wait list status, or changing the grading basis for a class. For more information, see MyUCLA in the Enrollment section of the Schedule of Classes at http://www.registrar.ucla.edu/soc/enroll.htm.

**IN-PERSON ENROLLMENT**

For classes that require written approval or specialized processing, students may enroll in person at 1113 Murphy Hall Monday through Friday from 9 a.m. to 4 p.m.

**STUDY LIST**

A Study List is the record of courses a student is enrolled in 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 Enrollment in the Schedule of Classes 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.
STUDY

INTERSEGMENTAL CROSS-ENROLLMENT

At the discretion of the appropriate campus authorities on both campuses, California Education Code sections 66755 and 66756 (amended by California Senate Bill 361 passed in 1999) allow undergraduate students enrolled in any campus of the California community colleges, the California State University, or the University of California to enroll without formal admission in a maximum of one course per academic term at a campus of either of the other systems on a space-available basis. Enrollment in precollege 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. UCLA students obtain applications from the Registrar's Office, 1113 Murphy Hall. Observe the deadlines on the application. Applications are reviewed by a student's College or school. Letters and Science students should consult College Academic Counseling in A316 Murphy Hall; Arts and Architecture students should contact the Student Services Office in 2200 Broad Art Center; Theater, Film, and Television students should consult the Student Services Office in 103 East Melnitz Building; Engineering students should contact the Office of Academic and Student Affairs in 6426 Boelter Hall.

APPLYING 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.

No financial aid can be awarded to international students in their first year of attendance at UCLA. 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 at http://wwwfinancialaid.ucla.edu.

To qualify for aid, students must also comply with minimum progress standards, which set unit and grade-point average requirements as defined in the Appendix of this catalog.

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. The University expects that students and their families bear as much of the cost of a student’s education as their circumstances permit.

The FAFSA is used to apply for all federally funded programs, funds administered by UCLA, and Cal Grants 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 at http://www.fafsa.ed.gov by March 2. Be sure to indicate that the data is to be sent to UCLA by using the UCLA Title IV code: 001315.

**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 and University grant aid if they complete a California Dream Act Application at https://dream.csac.ca.gov. The priority filing deadline for University grant consideration is March 2.

**PROSPECTIVE STUDENT SCHOLARSHIPS**

In addition to using the FAFSA to apply for aid, prospective students who apply to UCLA with the UC Application for Admission and Scholarships may use the application to apply for undergraduate scholarships.

**CONTINUING STUDENT SCHOLARSHIPS**

Scholarship applications for continuing students can be submitted at http://www.finaid.ucla.edu, are available beginning in January, and should be completed by March 2 for on-time consideration. Students should also check with their College or school and department for scholarship availability. The Scholarship Resource Center can also help with a thorough search for UCLA and outside scholarships.

**TYPES OF FINANCIAL AID**

The four basic types of aid are scholarships, grants, loans, and work-study employment. Financial Aid and Scholarships 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 Financial Aid and Scholarships 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.

Financial need is required for University and name (endowed) scholarships other than those listed below. Each year approximately $300,000 is awarded from the many different scholarship funds. Awards range from $100 to $2,000 and are not renewable. Entering students apply for scholarships on the UC Application for Admission and Scholarships. Continuing students must apply using the Undergraduate Scholarship Application for Continuing Students at http://www.finaid.ucla.edu. The application is available at the beginning of January and is due by March 2.

In addition to applying for University scholarships, students are encouraged to apply for outside scholarship funding via search engines such as FastWeb, GoCollege, and others.

**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 receive a combination of grants and scholarships to cover the amount of their need. Regents Scholars also receive special privileges.

**UCLA Alumni Scholarships**

The Alumni Scholarships Program is one of UCLA’s oldest and most prestigious scholarships program on campus. Since 1936, a select group of distinguished Bruins have had the honor of being known as Alumni Scholars. Recipients are selected by alumni volunteers throughout the U.S. for the following programs.

**Community College Transfer Alumni Scholarship** (CCTS). For students transferring to UCLA from a California Community College with a 3.75 GPA. Financial awards are $4,000 over a two-year tenure.

**Freshman Alumni Scholarship.** Awards prospective freshmen who have demonstrated academic excellence, powerful leadership, and a desire to effect positive change. Financial awards for freshmen range from $4,000 to $20,000 over a four-year tenure.

**Lew and Edie Wasserman Grants.** Sophomore and Junior Alumni Scholars may apply to receive additional financial assistance. Applicants are evaluated on a combination of academic merit and financial need.

**National Finals Competition.** Every April, top-scoring UCLA scholarship applicants participate in the competition to potentially increase their base scholarship award up to $20,000 paid over four years. This competition is a 30-year tradition of the Alumni Scholarships Program.

**Need-Based Scholarship.** First-year Alumni Scholars who complete a FAFSA and have demonstrated financial need may also receive up to $5,000 for the first year in addition to their scholarship award.
Out-of-State Scholarship. Provides an outstanding opportunity for highly accomplished students from outside California to fund their UCLA education. Ralph Bunche Freshman Alumni Scholarship. Continues the legacy of Dr. Ralph J. Bunche ’27, first-generation college student who went on to become class valedictorian, a Nobel Peace Prize winner, and a founder of the United Nations. Bunche Scholars exemplify Dr. Bunche’s experiences, come from all walks of life, and are invaluable to the UCLA community. True Bruin Distinguished Senior Award. Awarded to highly meritorious students who exemplify the True Bruin values of integrity, excellence, accountability, respect, and service. True Bruin Distinguished Seniors receive $5,000 and are recognized and celebrated for the skills, knowledge, and leadership experiences they have demonstrated on campus and in their community. UCLA Alumni Legacy Scholarship. For academically talented undergraduate students who have a parent or guardian that is a UCLA degree holder. The applicant must be admitted to UCLA under the standard admissions process. Being an Alumni Scholar is more than just receiving a scholarship. Awardees are automatically enrolled in the esteemed Alumni Scholars Club where they are involved in campus events and organizations with like-minded students, increase their connections throughout the university, and attain skills that will benefit their professional career well after graduation. For additional information, see http://alumni.ucla.edu/scholarships.

ROTC Scholarships
ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships provide tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Applications for scholarships may be obtained by calling Army, (310) 825-7381; Air Force, (310) 825-1742; or Navy/Marine Corps, (310) 825-9075. Applications for Army scholarships can also be obtained at http://www.goarmy.com/rotc/scholarships.html; for Air Force scholarships at http://www.afrotc.com/scholarships/highschool/scholarships/; and for Navy scholarships at http://www.nrotc.navy.mil/scholarships.aspx or by calling (800) 628-7682. Completed applications for four-year scholarships should be submitted prior to August 15 (Navy/Marine Corps) for early consideration, but no later than December 1 (Air Force), January 31 (Navy/Marine Corps) or February 28 (Army) of the year preceding college matriculation. Two- (not available for Air Force) and three-year scholarship applications are also available and are considered when received.

Grants
Grants are based on need and do not have to be repaid. When awarding policies and funds permit, the financial aid package includes a grant.

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. Amounts for 2014-15 range from $602 to $5,730 for students enrolled full time. 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. They are 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 fees. 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. Award amounts are $12,192 for Cal Grant A and $1,473 for Cal Grant B for full-time students (12 units or more). Awards are reduced for students enrolled less than full time.

University Grants
University grants provide eligible on-time applicants with financial assistance from state funds. Awards range from $100 to over $15,000 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 $800. Recipients must be U.S. citizens or eligible noncitizens. Preference is given to Pell Grant and Cal Grant recipients. Only on-time, grant-eligible students are considered.

Loans
Loans allow students to postpone paying some of the costs of their education until they have completed school. A financial aid offer includes a long-term, low-interest loan.
Borrowers must realize their commitment and responsibility to repay according to repayment schedules. Before accepting a loan, students should assess their total educational debt and ability to repay after graduation. The University makes every effort to assist students during the repayment of their obligation, but University 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 http://www.loans.ucla.edu before funds are released.

All loan recipients must complete an exit interview with the Loan Services Office (A227 Murphy Hall, 310-825-9864, http://www.loans.ucla.edu) 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, the University 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 the University.

Federal Perkins Loans

Low-interest Federal Perkins Loans are awarded to eligible, on-time applicants who are U.S. citizens or eligible noncitizens; eligibility is subject to availability of funding. The loan limit per academic year is $5,500 for undergraduate students and $8,000 for graduate and professional students. The actual award amount may be less, based on annual funding and UCLA’s institutional awarding policy. The loan interest rate is 5 percent. Loan repayment and interest accrual begin either six or nine months after graduation or dropping below half-time enrollment.

William D. Ford Federal Direct Loan Program

Direct Loans

Direct Loans are low-interest Subsidized and Unsubsidized Loans financed by the Department of Education. Subsidized Direct Loans are awarded to undergraduate students who have demonstrated financial need. Interest rates are fixed and adjusted by the Department of Education annually; 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 annually adjusted by the Department of Education. Please contact Financial Aid and Scholarships for information on current interest rates. Borrowers may want to consult a tax adviser to see if this 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 Financial Aid and Scholarships before funds can be disbursed. A list of private lenders that UCLA borrowers have used in the past is available under Publications at http://www.financialaid.ucla.edu/publications.html.

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. See http://www.loans.ucla.edu/shorttermloan.html.
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 students’ wage and the employer pays the balance. Through this program, students may work up to 20 hours per week for the University, government agencies, or public and private nonprofit agencies. Students employed through FWS provide essential services to the University 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 over 128 majors in a wide variety of disciplines offered through the undergraduate degree programs of the College of Letters and Science, School of the Arts and Architecture, Henry Samueli School of Engineering and Applied Science, School of Nursing, and School of Theater, Film, and Television. For a complete list of major programs and degrees, see the table in the front of this catalog.

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.

INDIVIDUAL MAJORS

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. Requirements for individual majors vary among the College and schools.

CHANGING MAJORS

Changing majors requires the approval of the College or school and the department. To change majors, obtain a Petition for Change of Major at the department office.

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 three types of requirements for a degree:

1. University requirements
2. College or school requirements
3. 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

1. Scoring 3, 4, or 5 on one of the College Board Advanced Placement Examinations in English OR
2. Scoring 5, 6, or 7 on the International Baccalaureate High Level English A Examination or scoring 6 or 7 on the International Baccalaureate Standard Level English A Examination OR
3. Scoring 680 or higher on the SAT Reasoning Test Writing Section OR
4. Scoring 30 or higher on the ACT Combined English/Writing test OR
5. Presenting transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution OR
6. Passing 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)
UNDERGRADUATE STUDY

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.

Four levels of UCLA capstone options are illustrated. The four levels represent different expectations for student engagement and independence, ranging from advanced senior seminars or project courses that require a comprehensive term paper, performance, or product design, to individually designed majors. The percentages listed indicate the expected participation of seniors at each of the four levels. It should be noted that some students might complete capstones at more than one level; for example, a student, having completed an advanced seminar, might decide to engage in an independent study or honors project.

Capstone majors and programs are identified in the Curricula and Courses section of this catalog. See http://www.capstones.ucla.edu for more detailed information.

MAJORS

Aerospace Engineering B.S.
American Indian Studies B.A.
Art B.A.
Asian American Studies B.A.
Bioengineering B.S.
Central and East European Languages and Cultures B.A.
Chemical Engineering B.S.
Civil Engineering B.S.
Classical Civilization B.A.
Cognitive Science B.S.
Computational and Systems Biology B.S.
Computer Science B.S.
Computer Science and Engineering B.S.
Design | Media Arts B.A.
Earth and Environmental Science B.A.
Ecology, Behavior, and Evolution B.S.
Electrical Engineering B.S.
Environmental Science B.S.
Ethnomusicology B.A.

European Studies B.A.
Film and Television B.A.
French B.A.
Geology B.S.
Geology/Engineering Geology B.S.
Geology/Paleobiology B.S.
Geophysics/Applied Geophysics B.S.
Geophysics/Geophysics and Space Physics B.S.
German B.A.
Global Studies B.A.
Greek B.A.
Greek and Latin B.A.
History B.A.
Individual Field of Concentration B.A.
Individual Field of Concentration B.S.
International Development Studies B.A.
Italian B.A.
Italian and Special Fields B.A.
Latin B.A.
Marine Biology B.S.
Materials Engineering B.S.

Mathematics/Atmospheric and Oceanic Sciences B.S.
Mathematics for Teaching B.S.
Mechanical Engineering B.S.
Music B.A.
Music History B.A.
Neuroscience B.S.
Nursing (Prelicensure) B.S.
Russian Language and Literature B.A.
Russian Studies B.A.
Spanish and Community and Culture B.A.
Spanish B.A.
Statistics B.S.
Study of Religion B.A.
Theater B.A.

PROGRAMS

American Literature and Culture B.A.
Chicana and Chicano Studies B.A.
English B.A.
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 less must repeat the course during their next term in residence. Satisfaction of the Entry-Level Writing requirement is a requisite to English Composition 3 and all subsequent English courses.

For more information, see http://www.ucla.edu/elwr/.

**ENGLISH AS A SECOND LANGUAGE**

All entering UCLA students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement are required to take the Analytical Writing Placement Examination (AWPE) or the English as a Second Language Placement Examination (ESLPE). Neither the Test of English as a Foreign Language (TOEFL) nor any other English proficiency test can be submitted or accepted in lieu of the AWPE or ESLPE. Undergraduate students may take the AWPE or ESLPE once only. Unauthorized retakes of the examinations result in an invalid examination score.

First-year undergraduate students do not need to take the ESLPE. Students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE by the time they enter UCLA must take it in their first term at UCLA. Results of the AWPE are reviewed to determine whether students should complete the ESL requirement, prior to satisfying the Entry-Level Writing requirement, in order to demonstrate sufficient command of English. If held for the ESL requirement, students must complete the requirement by taking the designated ESL courses.

Transfer students who have completed the English Composition 3 and English 4W equivalent courses at their transfer institution may nonetheless be held for the UCLA ESL requirement at the discretion of UCLA Undergraduate Admission. This includes, but is not limited to, all students who received a grade below B in either of these equivalent courses. Transfer students held by UCLA Undergraduate Admission to the ESL requirement must take the ESLPE prior to or during the term in which they are to register. Failure to sit for the ESLPE results in a hold on student records. Depending on the ESLPE results, students may be required to successfully complete one or more courses in the English as a Second Language series to satisfy the ESL requirement.

Results of the ESLPE are used to determine placement into the required sequence of ESL courses or exemption from the ESL requirement. In the case of a nonpassing score on the examination, students are placed in one or more of the credit-bearing courses—English as a Second Language 33B, 33C, and 35. 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 (C– or a Passed grade is not acceptable). All units are applied toward graduation but cannot be applied toward general education requirements. Certain ESL courses provide upper division elective units.

**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:

1. Completing a year’s 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 OR
2. Completing any one of the following UCLA courses with a grade of C or better, or a grade of Passed:
   - Asian American Studies M171D
   - Chicana and Chicano Studies M159A, M159B, CM182, M183
   - Economics 183
   - Gender Studies M147B, M147D
   - Geography 136
   - Political Science 40, 114, 140A, 140B, 140C, 142A, 143A, 145B, 145C
   - Study of Religion M142C
3. 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 OR
4. Presenting a satisfactory result of the requirement, by examination, as administered at another college or university within the state OR
5. Scoring 500 or better on the SAT Subject Test in U.S. History OR
6. Scoring 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 the University 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.

For more information on this requirement, contact the undergraduate History Department counselor in 6248 Bunche Hall, (310) 825-3720.
The Undergraduate Research Centers (URC) assist the College and each school with undergraduate programs. These centers provide opportunities to become actively involved in the university 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 http://www.ugresearchsci.ucla.edu/srpintro.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugresearchnorth.ucla.edu/research.htm.

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 http://www.ugresearchsci.ucla.edu/urfp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urhass/scholarships.htm#URFP.

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 http://www.ugresearchsci.ucla.edu/ursp.htm. Arts, humanities, social sciences, and behavioral sciences students should see http://www.ugeducation.ucla.edu/urhass/scholarships.htm#URSP.

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.
INTERNETSIUPS 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 provide students with insights into a range of professional fields and the chance to apply academic theories firsthand.

CAREER CENTER

INTERNATIONAL AND EXPERIENTIAL LEARNING SERVICES

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 in the Career Center Library Internship Zone and on BruinView™. Options for current students and alumni include teaching or volunteering abroad, research or fieldwork, and internships in almost every occupation or industry. All career counselors and peer advisers offer support for students eager to gain hands-on experience. See http://career.ucla.edu.

DC FELLOWS INTERNSHIP PROGRAM

The DC Fellows internship program supports students seeking summer internships in Washington, DC. Assignments are available with elected officials, government agencies, public interest groups, international organizations, the media, and a wide range of public and private organizations. The program offers advice on searching and applying for internships, as well as housing support and the option to apply for alumni-sponsored scholarships. For further information, send e-mail to internships@career.ucla.edu.

QUARTER IN WASHINGTON, DC

The Center for American Politics and Public Policy (CAPPP) selects undergraduates each fall, winter, and spring to participate in its Quarter in Washington Program. The program offers an exciting opportunity to combine UC courses with research and field experience.

Students live at the UC Washington Center for up to 12 weeks, dividing their time between coursework and a part-time internship placement. They can earn credit in multiple majors. The core course, a research development seminar, is multiple-listed in political science, sociology, communication studies, and history; meets the capstone requirement for the Public Affairs minor; applies toward the Civic Engagement minor; and is eligible for College Honors consideration. At least one course in a subject other than political science, such as economics or history, is usually offered each quarter.

All courses take advantage of Washington's unique resources for study and research.

UC Washington Center administrators help students find a field placement that complements a substantial research project. Placements have included ABC News, the Brookings Institution, CNN, the Department of Justice, the Kennedy Center, Studio Theatre, the Center for Strategic and International Studies, and various members of Congress. For information, contact the CAPPP office by e-mail at info@cappp.ucla.edu or call (310) 206-3109. See http://www.cappp.ucla.edu/quar

TERINWASHINGTON/.

RESERVE OFFICERS’ TRAINING CORPS

The University of California, in accordance with the National Defense Act of 1920 and with the concurrence of The Regents, offers courses and programs in military training. This voluntary training allows students to qualify for an officer's commission in the Army, Navy, Air Force, or Marine Corps while completing their college education. ROTC courses are offered by three departments within the College of Letters and Science: Aerospace Studies (Air Force), Military Science (Army), and Naval Science (Navy and Marine Corps). Equipment, uniforms, and textbooks are provided. The programs provide 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 the Curricula and Courses section of this catalog.

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 Graduate School of Education and Information Studies (GSE&IS), which helps coordinate programs leading to various instructional credentials or to graduate study.

EDUCATION STUDIES MINOR

The Education Studies minor provides a sequence of core and elective 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 1009 Moore Hall. See http://gseis.ucla.edu/education/academic-programs/education-studies-minor and the program description in the Curricula and Courses section of this catalog.

JOINT MATHEMATICS/EDUCATION PROGRAM

The Joint Mathematics/Education Program (JMEP), offered jointly by GSE&IS and the Department of Mathematics, leads to a teaching credential and master's degree in education for mathematics majors pursuing a career in secondary school teaching. The program offers courses in education for students completing courses required for a Bachelor of Science degree in a major within the Department of Mathematics. During their senior year, participants serve as teaching interns in an observational teaching program under the direction of a teaching coordinator. During the year following
graduation, students take additional graduate courses and teach full-time in a secondary classroom with a full salary. For information, contact the Mathematics Student Services Office, 6356 Math Sciences. See http://www.curtiscenter.math.ucla.edu/undergraduate.shtml.

**MATHEMATICS FOR TEACHING B.S.**
The Mathematics for Teaching capstone 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 who complete the major automatically complete the Mathematics Department’s California-approved subject matter program. At the end of their senior year, students may request a letter from the Mathematics Student Services Office, 6356 Math Sciences, verifying their completion of these courses and thus their subject matter competence for the California Single Subject Teaching Credential in Mathematics. See the degree description in the Curricula and Courses section of this catalog.

**SCIENCE EDUCATION MINOR**
The Science Education minor is designed for students who wish to become middle school and high school science teachers and is also attractive to students who plan to teach as graduate students in their disciplines. The minor provides the broad general science background included in California State subject matter credential examinations, selected coursework required for entry into a variety of postbaccalaureate credential programs, and field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, including Advanced Placement Tests. See http://www.cateach.ucla.edu/content/science-education-minor and the program description in the Curricula and Courses section of this catalog or call (310) 794-2191.

**SCIENCE TEACHER EDUCATION PROGRAM**
The Science Teacher Education Program (STEP), cosponsored by the College of Letters and Science and GSE&IS, 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 in education the following academic year. For details, e-mail Dr. Arlene Russell at russell@chem.ucla.edu or contact any science department undergraduate counseling office. See http://www.cateach.ucla.edu/content/science-teacher-education-program-step or call (310) 794-2191.

**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 provides clinical classroom experience and a full-year urban teaching residency. See http://centerx.gseis.ucla.edu/teacher-education/.

**TEACHING SECONDARY MATHEMATICS MINOR**
The Teaching Secondary Mathematics minor is designed for students majoring in fields other than mathematics who plan to teach secondary mathematics after graduation. The minor provides recognition for completion of requisite coursework for the Joint Mathematics Education Program and also prepares students for the contents on the California Subject Examination for Teachers (CSET). Post-bachelor credentialing programs will see that students with this minor have taken coursework on secondary mathematics from an advanced standpoint that is recommended by the Conference Board of Mathematical Sciences and the California State Commission on Teacher Credentialing. This minor is not open to students in any Mathematics Department major. See the program description in the Curricula and Courses section of this catalog.

**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 30 hours of observation, participation, and assisting in K-12 schools, and seminars to support those field experiences. See http://www.cateach.ucla.edu or call (310) 794-2191.

**VISUAL AND PERFORMING ARTS EDUCATION MINOR**
The Visual and Performing Arts Education 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 possible careers in the arts, including K-12 teaching, museum education, teaching artist, art therapy, 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. The program office is in 2101 Broad Art Center. See http://www.arts.ucla.edu/vape and the program description in the Curricula and Courses section of this catalog.

**UCLA CENTER FOR COMMUNITY LEARNING**
The UCLA Center for Community Learning serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, service learning courses, community-based research, service scholarships, and the Astin Scholars program. It is home to the undergraduate minors in Civic Engagement and Disability Studies. The office is in A265 Murphy Hall, (310) 825-7867. See http://www.uei.ucla.edu/communitylearning.htm.
**University of California Center Sacramento**

The University of California Center Sacramento (UCCS) is operated by UC Davis and cosponsored by the UC Office of the President. The center's long-term goal is to bring together UC faculty members with undergraduate and graduate students to pursue research related to state government, politics, and public policy. UCCS is open to all juniors and seniors with a 3.0 grade-point average. For more information, send e-mail to bwilkinson@college.ucla.edu. See http://uccs.ucdavis.edu.

**Lower Division Seminar Programs**

**Collegium of University Teaching Fellows**

The Collegium of University Teaching Fellows (CUTF) offers outstanding graduate students the opportunity to develop and teach lower division seminars in their area of expertise. These unique courses cover all areas, from the humanities to the life, physical, and social sciences. Undergraduate students take courses that are at the cutting edge of a discipline and benefit from a small-seminar environment. GE and honors credit is granted for most seminars, which are offered in Winter and Spring Quarters only. Enrollment is limited. For further information, contact the Office of Instructional Development, 70 Powell Library, (310) 206-8998. See http://www.oid.ucla.edu/teaching/cutf.

**Honors Collegium**

The 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. See http://www.honors.ucla.edu/hchome.html.

**Fiat Lux Freshman Seminar Program**

Fiat Lux seminars provide students with an opportunity to share ideas in class—an important academic skill that can be acquired only through practice. These 1-unit seminars, taught by distinguished faculty members from across UCLA, introduce freshman students to topics of intellectual importance and encourage them to participate in critical discussions with a small group of peers. The program takes its name from the motto of the University of California: *Fiat Lux – Let There be Light!* For details about seminar offerings each term, see the Schedule of Classes at http://www.registrar.ucla.edu/schedule/. For more information about the program, see http://www.uei.ucla.edu/fiatlux.htm.

**Advising and Academic Assistance**

Academic assistance is available in the form of staff and student counselors, faculty advisers, student services, tutorials, and special programs.

**New Student and Transition Programs**

UCLA's New Student and Transition Programs welcome new undergraduate students to UCLA and ease their transition into and throughout the first year. New Student Orientation introduces students to UCLA through academic counseling and educational planning and orients students to all the special programs available to them. During Orientation, students work in small groups with peer counselors and gain insight into necessary academic skills. They learn how to plan their academic program and become familiar with educational opportunities, student services, and facilities available at UCLA. Individual counseling sessions help students adjust to University life and fulfill the advising requirements of the College or school. Sessions for family members are also offered.

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

During the academic year, additional programs are offered to provide academic advising and successful transition to the second year. For more information, contact the New Student and Transition Programs office in 201 Covel Commons, (310) 206-6685. See http://www.newstudents.ucla.edu.

**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. See the Schedule of Classes for a list of counselors and advisers.

**Ask Peer Counselors**

The ASK Peer Counseling Program is an extension of College Academic Counseling. ASK peer counselors are undergraduate students from the College of Letters and Science trained to respond to student questions and concerns in several convenient settings. No appointments are required, just walk up and ASK. Peer counselors make referrals and provide information.
about academic rules and regulations, deadlines, and petitions and, as peers, can provide valuable personal experience.

Students can find ASK peer counselors weekdays when school is in session at various locations across campus. For details about locations and operating hours, see http://www.ugeducation.ucla.edu/counseling/ask/. Students may also e-mail questions to ask@college.ucla.edu.

**COLLEGE ACADEMIC MENTORS**

Letters and Science college academic mentors (CAMs) are graduate students who mentor primarily undergraduate lower division students and new transfer students to successfully navigate a large research university. In addition to addressing issues related to program planning and academic success, CAMs provide information and referrals to campus resources that focus on undergraduate achievement. Many CAMs have served as teaching assistants and can give unique perspectives on faculty members, course selection, major requirements, and preparation for and application to graduate school. See http://www.ugeducation.ucla.edu/counseling/cam.html.

For appointments, go to Window 1, A316 Murphy Hall. CAMs are also available in selected departments and through the MyUCLA Virtual Counseling link.

**ACADEMIC ADVANCEMENT PROGRAM**

The Academic Advancement Program (AAP, http://aap.ucla.edu), built on principles of social justice, has a threefold mission: (1) to ensure the academic success, retention, and graduation of students who have been historically underrepresented in higher education, (2) to increase the numbers of AAP students entering graduate and professional schools, and (3) to develop the academic, political, scientific, economic, and community leadership necessary to transform society. AAP promotes academic achievement and excellence by providing students with an array of academic services.

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 in 1230 Campbell Hall. See http://aap.ucla.com/programs/new-students/overview/ or call (310) 206-1571.

**ACADEMIC COUNSELING**

College counselors at AAP holistically counsel students to facilitate their academic and personal success by empowering them with the knowledge and guidance to thrive in their undergraduate careers and beyond. Counselors work with students to plan their academic programs, monitor progress toward the degree, provide information about degree requirements, and discuss graduate school and career options. See http://aap.ucla.com/programs/counseling/ or call (310) 825-1481.

**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 the University to improve student competitiveness for UC admissions and increase the diversity of the UCLA transfer admit pool. The CCCP Scholars Program offers peer mentoring and several academic residential summer programs to help prepare students for transfer to a four-year university and to help institutions develop a transfer culture through a critical race theory framework. See http://cccp.ucla.edu/#/ or call (310) 267-4441.

**MENTORING AND RESEARCH PROGRAMS**

AAP offers several programs aimed at helping students achieve academic and professional goals beyond the bachelor’s degree.

**Community Development and Social Justice Program**

The Community Development and Social Justice (CDSJ) Program assists undergraduate students interested in graduate and professional schools. The program works in the fields of labor/workplace studies, public health, public policy, social welfare, and urban planning to increase enrollment of AAP students committed to working toward social equity. Students work as interns, under the supervision of a professional staff member, at a community-based organization. See http://aap.ucla.com/mentoring/community-development-and-social-justice-program-cdsj/ or call (310) 794-4186.

**Educators for Tomorrow Scholars Program**

The Educators for Tomorrow (EFT) Scholars Program aims to advance a new generation of socially conscious leaders interested in careers in education. It provides AAP students with opportunities to meet faculty members and students in the Graduate School of Education and Information Studies to get involved in community service programs, internships, and service learning courses. Students in the program work with teachers at local public schools as volunteers and participate in educational roundtables. See http://aap.ucla.com/mentoring/educators-for-tomorrow/ or call (310) 794-4186.

**Graduate Mentoring and Research Programs**

The Graduate Mentoring and Research Programs offer all AAP students one-on-one mentoring in preparation for graduate studies and professional school admission. The office also offers a variety of workshops on graduate school topics. See http://aap.ucla.com/mentoring/graduate-and-professional-school-resources/ or call (310) 794-4186.
McNair Research Scholars Program
The McNair Research Scholars Program prepares low-income, first-generation, and historically underrepresented undergraduate students for the best graduate programs in the country. The program works with 28 students annually to prepare them for Ph.D. programs in the humanities or social sciences. Students conduct an independent research project and participate in an intensive summer program. See http://aapucla.com/mentoring/mcnair-research-scholars-program/ or call (310) 794-4186.

Research Rookies Program
The Research Rookies Program gives second-year AAP undergraduate students the opportunity to develop entry-level research projects in the humanities and social sciences. Over two academic terms, students meet regularly with graduate mentors and a faculty member. See http://aapucla.com/mentoring/aap-junior-scholars/ or call (310) 794-4186.

PEER COUNSELING
Peer counselors are upper division AAP students who assist entering students with the transition to the University and provide them with a perspective on life at UCLA. See http://aapucla.com/mentoring/peer-counselors/ or call (310) 825-1481.

PEER LEARNING
AAP Peer Learning services promote academic excellence. Most peer learning facilitators are upper division AAP students who provide the intellectual challenge, encouragement, and personal support that students need to recognize their own authority as thinkers and learners. Most sessions are held in small groups that foster discussion and allow students to listen to and articulate new and different perspectives. See http://aapucla.com/programs/peer-learning/overview/ or call (310) 206-7771.

SCHOLARSHIPS
There are many opportunities for eligible students in AAP to receive merit and need-based scholarship funds. Some awards require application; others are available through nomination. See http://aapucla.com/aap-scholarship/ or call (310) 206-1805 for further information.

SUMMER PROGRAMS
AAP’s seven-week intensive academic residential summer program for incoming freshman and transfer students prepares historically underrepresented, low-income, and first-generation college-going students with the academic rigors and demands of a research university. Students are able to build a network of academic resources and friends prior to the regular school year that provides interaction with students from diverse backgrounds and broadens life experiences.

Students enroll in three University courses that meet UCLA requirements for graduation and receive support in small groups or individual sessions from teaching assistants and peer learning facilitators. Freshmen have the option of taking classes offered in the writing or mathematics/science intensive programs. Transfer student preparation involves an advanced composition course, honors research course, and upper division seminar. Academic counselors are available to assist students in shaping their educational plan toward graduation. See http://aapucla.com/programs/new-students/freshman-and-transfer-summer-programs/ or call (310) 206-1571.

VICE PROVOST INITIATIVE FOR PRECOLLEGE SCHOLARS
The Vice Provost Initiative for Precollege Scholars (VIPS) program is a partnership between UCLA and the Los Angeles and Pasadena school districts that prepares historically underrepresented students in 10 high schools to become competitively eligible for admission to UCLA and other flagship universities, and to encourage pursuit of graduate and professional education using a social justice framework and holistic approach. VIPS offers peer mentoring, summer programs, Saturday academies, and research opportunities to scholars and their families. See http://aapucla.com/programs/vips/ or call (310) 267-4676.

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, Henry Samueli School of Engineering and Applied Science, 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. Consult the College or school for further 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) University of California 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 the College and Schools section of this catalog. See the Schedule of Classes 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 departmen-
tal honors program. Students should consult their department for its requirements.

**DEPARTMENTAL SCHOLAR PROGRAM**

Departments in the College of Letters and Science and each school, except the 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 consult their departments well in advance of application dates for graduate admission (see the calendar at the beginning of this catalog).

**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 during the freshman year. To be eligible students must have a 3.5 grade-point average with 12 graded University of California units in the first term of their freshman or first year at UCLA, or a cumulative 3.5 GPA at the end of the second and/or third terms. Invitations are issued in Winter Quarter, and an induction ceremony is held during Spring Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871. See http://www.aldpes.ucla.edu.

**GOLDEN KEY**

Golden Key is an international interdisciplinary academic honors organization dedicated to excellence. Students qualify on the basis of objective academic criteria. No more than the top 15 percent of enrolled sophomores, juniors, and seniors may be eligible. The society recognizes and encourages scholastic achievement and excellence in all undergraduate fields of study. It unites with collegiate faculties and administrators in developing and maintaining high standards of education and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued in Fall Quarter, and a reception is held during Winter Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871. See http://ucla.goldenkey.org.

**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 at http://www.mortarboardatucla.org/apply.html early in Winter Quarter and are due by mid-February. Approximately 35 members are selected each spring by the outgoing chapter. See http://www.mortarboardatucla.org or call (310) 206-5523.

**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 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 May, with the initiation in June. At present, the minimum grade-point average considered is 3.67 (for 140 or more UC units); the minimum number of UC units considered is 90 (students at the 90-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. Students who are elected are notified by mail. For further information, contact Phi Beta Kappa in the Honors Programs Office, A311 Murphy Hall, (310) 825-1615. See http://www.college.ucla.edu/pbk/.

**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 need to earn 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 included). Invitations are issued after each regular academic term, and an induction ceremony is held during Spring Quarter.

Tau Sigma honors UCLA's large transfer community for academic achievement and provides leadership, networking, and social activities. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall, (310) 825-3871.
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 provide extraordinary opportunities for graduate endeavor.

Graduate training at UCLA takes place in the classrooms, the laboratories, the 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 doctoral degree (Ph.D., Ed.D., and so forth) is designed to prepare students for creative activity and original research, often in association with college or university teaching.

GRADUATE ADMISSION

Diversity, Inclusion, and Admissions
1237 Murphy Hall
(310) 206-3411
http://grad.ucla.edu

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’s 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 at http://grad.ucla.edu/gasaa/deptinfo/deptinfointro.asp.

APPLYING FOR ADMISSION

Prospective students may apply online at http://grad.ucla.edu.

WHEN TO APPLY

Most departments and schools have deadlines in November and early December for the following Fall Quarter. Consult the Graduate Division website’s Admissions section 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 program’s stated deadline, provided the enrollment limits have not been exceeded.

APPLICATION FEE

A nonrefundable application fee is required when the application is submitted.

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 B or better (or its equivalent if the letter grade system is not used) is required in the last two years of undergraduate coursework and in any postbaccalaureate study.

Requirements for international applicants are listed below.

SUPPORTING MATERIALS

Supporting materials to be submitted, including official transcripts of record and the nonrefundable application fee, are specified at http://grad.ucla.edu. Submitted materials become the property of the University and are not returnable.

GRADUATE RECORD EXAMINATION

Applicants who apply 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 the Graduate Division.

GRE registration and information about both paper and computer-based testing are available at http://
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 people qualified to analyze students’ abilities and academic promise.

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 Institutes of Chartered Accountants, the Institute of Chartered Secretaries and Administrators, and so forth, also do not qualify for graduate admission unless they also hold recognized university-level degrees or titles.

Students should submit official transcripts of record, in the original language and with an English translation certified by the institution, for all college and university work. 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 a variety of educational systems is available at http://grad.ucla.edu.

Proficiency in English

International students who hold a bachelor’s or higher degree from a university located in the U.S. or in another country in which English is both the primary spoken language of daily life (e.g., Australia, Barbados, Canada, Ireland, Jamaica, New Zealand, United Kingdom) and the medium of instruction, or who have completed at least two years of full-time study at such an institution, are exempt from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examination and the UCLA English as a Second Language Placement Examination (ESLPE). All other applicants must take the TOEFL, administered by the Educational Testing Service in some 95 foreign centers, or the IELTS, administered by IELTS test centers throughout the world. See http://www.ielts.org for the nearest test center. TOEFL applications are available from TOEFL Services, PO. Box 6151, Princeton, NJ 08541-6151, (609) 771-7100, or at http://www.ets.org.

Students whose native language is not English are required to take the UCLA English as a Second Language Placement Examination (ESLPE), in addition to the TOEFL or IELTS examination, before or during the term in which they are to register. Failure to sit for the ESLPE results in a hold on student records. Those graduate students who believe that their initial ESLPE score is not reflective of their English language proficiency due to having recently arrived in the U.S. may sit for the examination a second time in a subsequent term only (retaking the examination in the same term is not counted as a valid result). In cases where students retake the examination, the most recent examination score is held to be valid. Unauthorized retakes of the examination result in an invalid examination score.

About the UCLA Graduate Division

The UCLA Graduate Division administers policy established by the Academic Senate and its Graduate Council for master’s, doctoral, and graduate professional degree programs other than the professional degree programs in law, medicine, and dentistry, and for postdoctoral scholars. It oversees graduate recruitment and admissions (including the recruitment of a diverse student body), fellowships, teaching assistantships, graduate student researcher appointments, and other graduate student support, and the maintenance of high quality standards in all UCLA graduate programs. The dean of the Graduate Division also serves as vice provost of Graduate Education.

Graduate Council. The Graduate Council is a standing committee of the UCLA Academic Senate. In keeping with the University’s commitment to the philosophy of shared governance, the council is responsible for the establishment of policy and standards for graduate education and postdoctoral scholars at UCLA; the approval, review, and monitoring of graduate degree programs; and recommendations regarding fellowships and assistance.

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’s or doctoral committee is established, the chair of the committee assumes the adviser’s role.

Depending on the ESLPE results, students may be required to complete one or more courses in the English as a Second Language 33 series, beginning in their first term in residence at UCLA. The courses must be passed with a grade of C or better if taken for a letter grade, or B or better if taken on an S/U basis. Students should expect to spend a longer period of time at the University than would normally be necessary to complete a degree program if they are required to take any English as a second language courses. If they do not achieve a minimum score on the ESLPE, their admission is deferred until they have acquired the necessary proficiency in English. Neither the TOEFL, nor IELTS, nor any other English proficiency test can be submitted or accepted in lieu of the ESLPE.

Graduate students who plan to work as teaching assistants (TAs) and are nonnative English-speaking international students are required to take the Test of Oral Proficiency (TOP), which is administered by the Office of Instructional Development (OID). Those who hold a bachelor’s degree from a U.S. institution are exempt. Students who do not plan to work as teaching assistants do not need to take the TOP.

For students receiving a clear pass (7.1 or above) on the TOP, no coursework is required. Students receiving 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 recom-
mended coursework in English as a Second Language 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 at http://www.oid.ucla.edu/units/top/ or call (310) 825-3106.

ADMISSION TO THE SCHOOLS OF DENTISTRY, LAW, AND MEDICINE

Applicants for M.S. and Ph.D. programs in departments of the School of Medicine or Dentistry should apply for admission to the Graduate Division as described above. For admission to D.D.S., J.D., LL.M., S.J.D., and M.D. degree programs in the Schools of Dentistry, Law, and Medicine, consult the websites or write to the respective schools for information and application procedures.

ADMISSION TO PROGRAMS IN LIFE AND MEDICAL SCIENCES

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

DEGREE-GRA NTING PROGRAMS AND HOME AREAS

Consortium Ph.D. programs offer the research home areas listed below.

- Bioinformatics
- Biomedical Physics
- Human Genetics
- Molecular Biology
  - Biochemistry, Biophysics, and Structural Biology
  - Cell and Developmental Biology
  - Gene Regulation
  - Immunity, Microbes, and Molecular Pathogenesis
- Molecular, Cellular, and Integrative Physiology
  - Molecular, Cellular, and Integrative Physiology
- Molecular and Medical Pharmacology
  - Molecular Pharmacology: Diagnostics, Therapeutics, and the Biology of Disease
- Neuroscience

Additional opportunities for doctoral study include Biochemistry and Molecular 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.

Consult the individual program website for information and application procedures. See http://www.grad.ucla.edu/departments.html for information about degree requirements for each program.

SPECIAL ADMISSION POLICIES

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 year's 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 the no degree objective (NDO) status. All admission to NDO status must be specially approved by the dean of the Graduate Division, as must any University financial assistance for students on NDO status.

DUPICATION OF 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 Concurrent and Articulated Degree Programs in the front of this catalog). 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 recommendation for student support for pursuit of a second doctoral degree. All degree requirements and University 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.

SUMMER SESSIONS COURSES

Enrollment in Summer Sessions courses 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 courses 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 Sessions courses following the award of their bachelor's degree, the grades do not appear on the undergraduate transcript (they are included on a separate transcript). After students are accepted by the Graduate Division, Summer Sessions grades are included on the graduate transcript and computed in the grade-point average.
READMISSION

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

See the Academic Policies section of this catalog for readmission procedures.

REGISTRATION

Registrar’s Office
1113 Murphy Hall
(310) 825-1091, option 6
http://www.registrar.ucla.edu

Registration consists of paying fees and enrolling in classes.

1. Registration fees and other University charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.
2. Enrollment in classes is completed through MyUCLA at https://my.ucla.edu.

Students must complete both processes by the established deadlines to be officially registered and enrolled 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 (see below). Failure to register or be on an official leave of absence for any term constitutes withdrawal from UCLA.

PAYING FEES

Details on fee payment, enrollment procedures, and deadlines are in the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

E-BILL

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. MyUCLA also provides a link to important communications from the University regarding registration and University policies. Students can pay their BruinBill account electronically using electronic checks 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. UCLA does not charge on a per-unit basis. Each entering and readmitted student is required to submit a Statement of Legal Residence to Diversity, Inclusion, and Admissions with the Statement of Intent to Register. Students classified as nonresidents of California must pay annual nonresident supplemental tuition in addition to other registration fees. Legal residents of California are not required to pay nonresident supplemental tuition. For a definition of residence and nonresidence, see the Appendix.

Fees are subject to change without notice by The Regents. See http://www.registrar.ucla.edu/fees/ for updates.

Self-Supporting Program Fees

Students in self-supporting programs pay a flat annual fee instead of per-term fees. For details, consult the individual program. Self-supporting program fees are published online at http://www.registrar.ucla.edu/fees/selfsupporting.htm.

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. A full list of miscellaneous fees is at http://www.registrar.ucla.edu/fees/miscfee.htm.

STUDENT HEALTH INSURANCE

All UCLA 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 medical/health insurance plan must be maintained during all registered terms. Uship components are medical, vision, dental, and behavioral health services.

The Uship fee is billed each term along with other UCLA fees. Uship fulfills all of the requirements mandated for a qualified medical/health insurance plan as defined by the University. The Ashe Student Health and Wellness Center is the primary healthcare provider for Uship and is where all nonemergency medical care must be initiated for Uship claim payment consideration. See http://www.studenthealth.ucla.edu.

Waiving Uship

Students may waive Uship if they (1) maintain active enrollment in a qualified medical/health insurance plan that meets all established requirements, (2) apply for a Uship waiver within established deadlines each term, and (3) correctly complete the online Uship waiver form.

Students must apply for a Uship waiver online. A pre-waiver worksheet is available to assist students before they complete an actual waiver. See the Ashe Center website for details, including a definition of qualified private medical/health insurance. Click the Insurance tab on http://www.studenthealth.ucla.edu and select the appropriate waiver link.
Deadlines for Waiving UCSHIP

Third-party individuals may not waive UCSHIP for a student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. The Fall UCSHIP waiver is available between July 1 and the student fee payment deadline. If the 20th falls on a weekend or holiday, the due date is the last business day prior to the 20th. Deadlines are strictly enforced. There are no refunds after the deadline.

The schedule for waiving UCSHIP is as follows:

**School of Law Students**
- **Fall Semester**
  - LLM: July 1–August 13
  - Year 1: July 1–August 18
  - Years 2, 3: July 1–August 25
- **Spring Semester**: December 1–19

**School of Medicine Students**
- **Fall Semester**
  - Year 4: June 1–20
  - Years 1, 2, 3: July 1–18
- **Spring Semester**: December 1–19

**All Other Students**
- **Fall Quarter**: September 1–19
- **Winter Quarter**: December 1–19
- **Spring Quarter**: March 1–20

The UCSHIP Fall Quarter waiver website is available between July 1 and September 19, 2014. For semester students, the waiver website is available between July 1 and the fee payment deadline.

The above information serves as official notice of the UCLA mandatory medical/health insurance requirement. All students are responsible for providing complete and accurate information that must be submitted by the stated deadlines.

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**ESTIMATED ANNUAL FEES FOR 2014-15**

Fees are mandatory and subject to change without notice. See [http://www.registrar.ucla.edu/fees/](http://www.registrar.ucla.edu/fees/) for updates.

<table>
<thead>
<tr>
<th>Fee Description</th>
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<tr>
<td>Student Services Fee</td>
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<td>Graduate Students Association Fee</td>
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<td>Graduate Writing Center Fee</td>
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<td>Ackerman Student Union Fee</td>
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<td>Ackerman/Kerckhoff Seismic Fee</td>
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<td>Wooden Recreation Center Fee</td>
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<td>Student Programs, Activities, and Resources Center Fee</td>
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<td>Student Health Insurance (UCSHIP)</td>
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<td><strong>Total for California residents</strong></td>
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<tr>
<td><strong>Nonresident Supplemental Tuition</strong></td>
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<tr>
<td><strong>Total for nonresidents</strong></td>
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</tr>
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</table>

*New academic master’s degree students are also assessed a one-time Document Fee of $80, and new academic doctoral students are also assessed a one-time Document Fee of $100, that permits lifetime access to official transcripts and academic verifications without a fee for standard processing. See the Schedule of Classes for more details.*

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**FEE REFUNDS**

Students who formally withdraw from the University or take an approved leave of absence may receive partial refunds of fees. For more information, see Withdrawal in the Academic Policies section of this catalog or consult the Schedule of Classes 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. 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 in the Schedule of Classes. Fees not paid by the deadline are subject to the late fee charge.

**REDUCED NONRESIDENT SUPPLEMENTAL TUITION**

The annual nonresident supplemental tuition 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 nonresident supplemental tuition rate for a maximum of three years. After three years, the full nonresident rate is assessed.

**FILING FEE**

Graduate students may be eligible to pay the filing fee (half the quarterly Student Services Fee) in lieu of full registration fees 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 the immediately preceding term. For more information, see [http://grad.ucla.edu/gasaa/etd/filingfee.htm](http://grad.ucla.edu/gasaa/etd/filingfee.htm).

Students who pay the filing fee are not eligible for University services beyond a maximum of 12 hours of faculty and staff time required to complete degree requirements and are not considered in the same status as registered students.

**IN ABSENTEE REGISTRATION**

Graduate students conducting research or taking coursework 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 the Academic Policies section of this catalog for more information.

**ANNUAL BUDGET ESTIMATES**

Students admitted to the D.D.S., D.Env., Dr.P.H., J.D., M.Arch., M.F.A. in Art, M.F.A. in Film and Television, M.F.A. in Theater, M.D., M.P.H., M.P.P., M.S.N., M.S.W., and M.U.R.P. degree programs must add Professional Degree Supplemental Tuition, which varies by school.

Budgets for the Schools of Medicine, Dentistry, and Nursing are higher due to specialized supplies; figures are available from the health professions counselor. Budgets are designed to serve as a guide and are subject to change without notice.
Throughout their appointments, teaching assistants (TAs) and graduate student researchers (GSRs) are required to be registered and enrolled in at least 12 quarter units. TAs or GSRs terminate their appointments if they take a leave of absence or withdraw. Course 375 for TAs and independent studies 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 stated by the major department. Information on Department of Veterans Affairs regulations is available from the Veterans Affairs 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 their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee (see above). Failure to register or be on an official leave of absence for any 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 University resources; or receiving University 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 adviser or department chair elaborating the exceptional circumstances.

Students who were registered for the preceding term and who completed all requirements for a degree in the interval between terms (before the first day of instruction) are not required to register to receive a degree at the end of the following term.

**Health Assessment and Evaluation**

New students enrolling in the School of Dentistry, Medicine, or Nursing or the Department of Social Welfare must complete and return to the Arthur Ashe Student Health and Wellness Center the Health Evaluation forms. Visit the Ashe Center website at http://www.studenthealth.ucla.edu to obtain professional school health clearances and monitor immunization compliance. To schedule a clearance appointment, call (310) 825-4073, option 1, or visit the Ashe Center.
GRADUATE STUDY

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FINANCIAL SUPPORT

Fellowships and Financial Services Office
1228 Murphy Hall
(310) 825-1025
uclafellowship@grad.ucla.edu
http://grad.ucla.edu

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 reentering) students is included in the online Application for Graduate Admission. Continuing graduate students should complete the online Fellowship Application for Continuing Graduate Students. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier deadlines; consult the Graduate Division website at http://grad.ucla.edu for details.

Financial Support for Entering Graduate Students and Graduate Student Financial Support for Continuing Students describe the full range of financial assistance available. They are revised annually and made available at the Graduate Division's website. Students should contact their department for more detailed information.

FELLOWSHIPS

The University 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 the University 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 provide stipends in varying amounts for qualified students. Nonresident tuition fellowships cover the nonresident supplemental tuition, 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 provide experience in teaching undergraduates, with faculty supervision. Graduate student researcher appointments give students experience working on faculty-supervised research projects.

AWARDS BASED ON FINANCIAL NEED

Because the cost of a graduate education may present a financial hardship, students who require assistance in meeting educational costs are encouraged to apply for aid based on their financial need. Need is defined as the difference between allowable school-related expenses and financial resources. Financial aid applicants must file the Free Application for Federal Student Aid (FAFSA). The priority filing deadline is March 2. Some awards, such as university grants, are subject to availability of funding. Students who complete the FAFSA by March 2 should also make sure that any additional requested documentation is submitted to Financial Aid and Scholarships as soon as possible.

Students who need financial aid for Summer Sessions must submit a Summer Aid Application in addition to the FAFSA. Summer applications are available at http://www.finaid.ucla.edu beginning April 1 and should be filed by April 30 for on-time consideration.

Financial aid is also available to UCLA students enrolled in Summer Travel, Summer Institutes, or UC cross-campus Summer Sessions. See http://www.finaid.ucla.edu for applications and deadline information.

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. Further information is available from Financial Aid and Scholarships, A129J Murphy Hall, or at http://www.finaid.ucla.edu.

DEGREE REQUIREMENTS

The following information is for prospective applicants and those outside the University 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 in Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu. At the same website, Standards and Procedures for Graduate Study at UCLA provides detailed information and sets forth 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. General regulations concerning graduate courses, standards of scholarship, disqualification, appeal, leave of absence, normal progress toward degree, withdrawal, and a number of other matters also are included.

MASTER’S AND DOCTORAL STUDY

Graduate students earn a master’s or doctoral degree by distinguished achievement in advanced study and research. In addition to coursework, there are various means of evaluating achievement in study, including qualifying and comprehensive examinations and vari-
ous kinds of laboratory and fieldwork. 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 doctoral degrees are minimum standards set by the University. Individual schools or departments may set higher standards and may require additional courses and examinations for their master’s degree. Each department also sets additional requirements for doctoral degrees according to the demands of the field of study. See Program Requirements for UCLA Graduate Degree at http://grad.ucla.edu and the departmental graduate adviser for details. Policies and regulations are outlined in Standards and Procedures for Graduate Study at UCLA at http://grad.ucla.edu.

**ACADEMIC RESIDENCE**

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

For the doctoral degree, the minimum residence requirement is two years (six 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 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 residency 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: (1) enroll in two six-week Summer Sessions taking at least 2 units of upper division and/or graduate work in each session OR (2) enroll in one eight-week session for at least 4 units of credit. Residence earned through Summer Sessions enrollment is limited to one third of the degree requirements.

To maintain satisfactory progress toward the degree, UCLA requires at least a B average in all courses taken in graduate standing at the University and in all courses applied toward a graduate degree, including those taken at another UC campus.

**FOREIGN LANGUAGE REQUIREMENTS**

Foreign language requirements are determined by individual departments and programs. If their program has a language requirement, students should fulfill it either before they begin graduate study or as soon as possible thereafter. All foreign language requirements must be satisfied before advancement to candidacy.

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. Students are urged to complete language requirements 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).

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 further details on foreign language requirements, consult the departmental graduate adviser.

**CHANGING MAJORS**

Continuing graduate students may petition for a change of major after discussing plans with the new department. Forms are available from the departments and should be filed with Academic Services, 1255 Murphy Hall. Deadlines are generally the same as those for the graduate admissions procedure.

**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 (20 units) of the nine must be graduate-level courses. These unit requirements represent the University 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 Comprehensive Examination. Some departments offer both plans, and students must consult with their department to determine the plan for meeting their degree requirements. University 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 Comprehensive Examination**

Following advancement to candidacy, students under Plan II must pass a comprehensive examination. Information concerning this examination and its format...
GRADUATE STUDY

Doctoral Degree

Doctoral programs are individualized and permit a high degree of specialization. The University 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 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 group. They are supervised during this period by a departmental 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. All students are required to successfully complete a written qualifying examination and the University Oral Qualifying Examination before advancement to doctoral candidacy. Once all departmental and foreign language requirements are met, the department chair consults with the student and then nominates a doctoral committee.

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 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 doctoral degree program requires the 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.
Academic Policies

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 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 Schedule of Classes calendar at http://www.registrar.ucla.edu/calendar/. For fees, see the fee charts at http://www.registrar.ucla.edu/fees/. Note: The School of Law and Geffen School of Medicine use the semester system.

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.

LANGUAGE OF INSTRUCTION

Courses at UCLA are taught in the English language, unless otherwise noted in the course description (for example, foreign language courses).

UNITS OF CREDIT

Most University 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 class levels are determined by the number of units completed as follows:

- Freshman (UFR) 0-44.9 units
- Sophomore (USO) 45-89.9 units
- Junior (UJR) 90-134.9 units
- Senior (USR) 135 or more units

Graduate class levels are based on the degree objective and whether or not students are advanced to candidacy for a doctorate.

REPETITION OF COURSES

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

1. To improve the grade-point average, 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 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. For undergraduates who repeat a total of 16 units or less, 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. 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 Passed/Not Passed grades, students may take these courses on a Passed/Not Passed or a 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 grade-point average in the major field, or must have senior standing. Students who have an outstanding Incomplete grade in an upper division tutorial course may not enroll in another upper division tutorial course until the grade of Incomplete 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 University of California 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 doctoral degrees.

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

GRADUATE GRADES

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

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

The grades A, B, and C may be modified by a plus or minus suffix. The grades A, B, and S denote satisfactory progress toward the degree, but a C grade must be offset by higher grades in the same term for students to remain in good academic standing. Courses in which a C grade is received, however, may be applied toward graduate degrees unless otherwise prohibited by the program requirements.

The Schools of Dentistry, Medicine, and Law use their own grading codes. Students who are interested in programs in any of these schools should consult the appropriate school announcement.

GRADE POINTS

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

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

As indicated, a plus (+) or minus (–) suffix added to a grade raises or lowers the grade-point value, except in the case of A+, which carries the same number of grade points as the A grade. Courses in which students receive a P or S grade 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 an I grade 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 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 four-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 C average (2.0 GPA) and graduate students a B average (3.0 GPA) in all courses taken at any campus of the University (except UCLA Extension).

Only grades earned in regular session or Summer Sessions at any UC campus and grades earned by Arts and Architecture and Letters and Science undergraduate students in UCLA Extension courses prefixed by XLC are computed in the UCLA grade-point average. Grades earned at another institution or in UCLA Extension courses other than those prefixed by XLC do not affect the GPA.

Other schools and agencies may calculate GPAs differently from the University when evaluating records for admission to graduate and professional school programs. Students should contact them about their policies in this regard.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
<th>Course Units</th>
<th>Total Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A–</td>
<td>3.7</td>
<td>4</td>
<td>14.8</td>
</tr>
<tr>
<td>B–</td>
<td>2.7</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>4</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>34.8</td>
<td></td>
</tr>
</tbody>
</table>

PASSED/NOT PASSED GRADES

Undergraduate students in good standing who are enrolled in at least 12 units (14 in the Henry Samueli School of Engineering and Applied Science) may take certain courses on a Passed/Not Passed (P/NP) basis. The grade P is assigned for a letter grade of C or better. Units earned this way count toward degree requirements but do not affect the GPA. Students receive neither units nor course credit for an NP grade.

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; consult the College or school for details. Students may make program changes to or from P/NP 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 U grade. They may not elect the S/U option for Summer Sessions 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 residency requirements if so approved. Interdepartmental majors may not apply S/U courses to degree requirements, except for 500-series courses. Program changes to or from S/U grading may be made through the tenth week of instruction through MyUCLA.

Courses that are offered only on an S/U basis are designated SU in the Schedule of Classes.

INCOMPLETE GRADES

Once an Incomplete (I) grade is assigned, it remains on the transcript along with the passing grade students may later receive for the course. The instructor may assign the I grade 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 I grade as opposed to a nonpassing grade.

If an I grade 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 grade lapses to an F, NP, or U as appropriate. The College or school may extend the deadline in unusual cases (not applicable to graduate students).

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 school or College faculty or the Graduate Division determines credit if they do not complete the full sequence and petition for partial credit.

DEFERRED REPORT GRADES

Students may receive a Deferred Report (DR) grade 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 DR grade, 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 grade is not included in determining the grade-point average.

CORRECTION OF GRADES

All grades except DR, I, and IP are final when filed by the instructor in the end-of-term course report. Thereafter, a grade change may be made only in case of a clerical or procedural error or other unusual circumstances. No grade may be revised by re-examination or, with the exception of the I and IP grades, by completing additional work. Students who are dissatisfied with a grade should review their work with the instructor and receive an explanation of the grade assigned. All grade changes are recorded on the transcript. See the Appendix for further details and procedures for appealing grades.

ABSENCE AND READMISSION

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

CANCELLATION

Before the first day of classes, students may cancel registration by (1) completing and submitting a Cancellation of Registration form, available at http://www.registrar.ucla.edu/forms/, or (2) faxing a written notice to (310) 206-4520. Refund is as follows: fees paid by new undergraduate and Dentistry students 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 the University.

WITHDRAWAL

Withdrawing from the University means discontinuing attendance in all courses in which students are enrolled. Students who withdraw during a term need to file a Withdrawal Notice, available online at http://www.registrar.ucla.edu/forms/.

When students officially withdraw, a percentage of the Student Services Fee may be refunded depending on the date the withdrawal form is filed. The UCSHIP fee is nonrefundable in most cases. Contact the Arthur Ashe Student Health and Wellness Center insurance office for more information.

CLAIMS FOR REFUND

Claims for refund must be presented within the academic (fiscal) year to which the claim is applicable. Consult the Schedule of Classes for policy details and specific refund dates.

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 faculty, departmental, or College 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 the University.

Students who register and subsequently discontinue coursework or stop payment on registration checks without an approved petition for withdrawal, leave of absence, or cancellation receive F, NP, or U grades, 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.

UNDERGRADUATE READMISSION

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.

ONE-TERM ABSENCE

Students on a one-term absence who plan to attend another institution—including UCLA Extension—should discuss plans with their College or school counselors before enrolling elsewhere. On returning to UCLA, they must have an official transcript mailed 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 UC are required to take a planned academic leave of absence (PAL) from UCLA. After they are accepted into a program, students must register their program with the UCLA International Education Office (IEO), B300 Murphy Hall. Registering the program also generates the student application for the leave of absence.

Requirements for programs and registration can be found on the IEO website at http://ieo.ucla.edu/nonucprograms/.

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

To return to the University 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 grade-point average) when they left the University, if coursework completed elsewhere in the interim is satisfactory, and if readmission applications are filed on time. The College or school may have other regulations. Contact the readmission clerk for more information at (310) 825-1091, option 6.

### READMISSION DEADLINES

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Quarter</td>
<td>August 15</td>
</tr>
<tr>
<td>Winter Quarter</td>
<td>November 25</td>
</tr>
<tr>
<td>Spring Quarter</td>
<td>February 25</td>
</tr>
</tbody>
</table>

GRADUATE READMISSION

For details on the policies below, consult Standards and Procedures for Graduate Study at UCLA at http://grad.ucla.edu/publications.asp.

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 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 the approval of the Graduate Division, be eligible for leaves of absence. Graduate students are allowed three terms of official leave of absence.

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. Therefore, 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 University) eligibility criteria.

Students on approved leave of absence are not permitted to use faculty time or make use of University 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.

The Leave of Absence Request is available at http://grad.ucla.edu in the forms section. See the Schedule of Classes calendar for the filing deadline.

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 in regard to Graduate Council policy requiring program accommodations for them.

In Absentia Registration

Academic and professional graduate students conducting research outside California related to their degree program 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. To register in absentia, complete a Petition for In Absentia Registration at http://grad.ucla.edu/gss/library/abspetition.pdf. The form includes an FAQ with complete details and restrictions.

APPLICATION FOR 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 their leaves. 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 are returning after an absence (except a formal leave of absence) must file an Application for Graduate Admission, which is available online at http://grad.ucla.edu. 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 reflects all undergraduate and graduate work completed in UCLA regular session and Summer
The verification transcript certifies registration (fee payment), enrollment status, and degrees. For auto insurance good-student discount, insurance forms should be presented at 1113 Murphy Hall. Verification transcripts confirm student status only after registration fees have been paid for the term. Verification of student workload is based on actual enrolled units and does not consider wait-listed units or list courses for a term.

Verification of degree can be issued after the degree has been posted to the student's record, approximately six weeks after the term ends. If verification is required before the degree is posted, the student may contact his or her degree auditor in 1113 Murphy Hall.

**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. See http://www.studentclearinghouse.org.

**Ordering Transcripts**

Continuing students must order official academic and verification transcripts through MyUCLA. Other students may order transcripts in person at 1113 Murphy Hall, or by using a Transcript Order form, available at http://www.registrar.ucla.edu/forms/. The form should be sent to UCLA Registrar’s Office, Attn: [Academic or Verification] Transcripts, 1105 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429.

For UCLA Extension courses, order transcripts from UCLA Extension, P.O. Box 24901, Department K, Los Angeles, CA 90024-0910 or online at https://www.uclaextension.edu/pages/str/Transcripts.aspx.

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

More information on ordering transcripts is available by calling (310) 825-1091 or by contacting transcripts@registrar.ucla.edu.

**FEES AND PAYMENT**

Most academic and verification transcripts are available at no charge after payment of the Document Fee. A fee may be charged for some transcript-related services. For example, forms that must be completed by the Registrar’s Office and envelopes that require official signatures are charged a special handling fee. Expedited service—processing within 24 hours—is available for an additional fee, or transcripts can be faxed with payment of an additional fee. Faxed transcripts are generally not considered official, and confidentiality cannot be guaranteed.

Transcript requests are not processed for anyone with outstanding obligations to the University. For exact fees, see http://www.registrar.ucla.edu/fees/.
STUDENT RECORDS

The Registrar prepares, maintains, and permanently retains a record of each student's academic work. Student files of pertinent documents are maintained up to five years from the admit term. Students may view their documents at the Registrar's Office, 1113 Murphy Hall. Advance notice of two to three days is required for viewing.

MYUCLA

Through MyUCLA, UCLA students acquire academic, financial, and personal information from their University academic records. See https://my.ucla.edu.

CHANGE OF NAME OR ADDRESS

Students who wish to change their name on official University records should complete a UCLA Name Change or Correction form (available online at http://www.registrar.ucla.edu/forms/) and submit it with documentation supporting the name change to the Registrar's Office, 1113 Murphy Hall. 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 changes of address 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, which may be found at http://www.adminpolicies.ucla.edu/app/Default.aspx?id=220-1.

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.

DEGREES

Students must satisfy (1) University requirements, (2) College or school requirements, and (3) department requirements as described in this catalog.

UNDERGRADUATE DEGREES

Undergraduate degree requirements are subject to the following degree policies.

STUDENT RESPONSIBILITY

It is the responsibility of students 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 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 C (2.0) average in all courses taken at any University of California 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 grade-point average falls between 1.5 and 1.99. While they are on probation, they may not take any course on a Passed/Not Passed basis. Probation ends at the close of a regular term if students have attained a C (2.0) average for the term and a cumulative C average in all University work. Students who do not end probation within two terms are subject to dismissal.

Academic Dismissal

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

1. If their grade-point average in any one term is less than 1.5 or
2. If they do not earn at least a C (2.0) average in any term when they are on probation or
3. If they do not end probation within two terms

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

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

Each school enforces minimum progress regulations. The College enforces expected cumulative progress regulations. Students may be subject to disqualification for failing to meet minimum progress and expected cumulative progress requirements. See the College and Schools section for specific minimum progress and expected cumulative progress and Study List regulations.
PETITIONS

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

Some of the 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. In addition, 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 (http://www.assist.org), the statewide transfer information site. Students can get some knowledge of transfer credit from accredited institutions other than the University of California or California community college by comparing the descriptions of courses taken with those in the UCLA General Catalog.

Once students complete the courses, they must have the other institution send official, sealed transcripts to UCLA Undergraduate Admission, 1147 Murphy Hall, Box 951436, Los Angeles, CA 90095-1436. Transfer students should discuss transfer credit with their College or school counselor and/or departmental adviser.

Community College

The maximum number of community college units allowed toward the bachelor’s degree is 105 quarter units (70 semester units). UCLA Undergraduate Admission does not grant transfer credit for community college courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower division requirements. Consult the College or school counselors for possible further limitations. 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 Sessions

Summer Sessions 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 College of Letters and Science, the School of Arts and Architecture, and the Henry Samueli School of Engineering and Applied Science 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

Anytime prior to graduation students may request a review of degree progress. These official degree checks detail requirements remaining to complete the bachelor’s degree. The degree check process may be different for the College and each school. The Degree Progress Report (DPR) or Degree Audit is a computer-generated assessment of all degree requirements and the courses taken to fulfill them. View and print DPRs or Degree Audits through MyUCLA or order one at a College or school counseling office.

College of Letters and Science

Degree Audits are available through MyUCLA and on request from a College counseling office (Academic Advancement Program, 1209 Campbell Hall; Honors Programs, A311 Murphy Hall; College Academic Counseling, A316 Murphy Hall). Students should review their DPR or Degree Audit with departmental undergraders or College counselors, as appropriate.

School of the Arts and Architecture

Degree Audits are available through MyUCLA and on request from the Office of Student Services, 2200 Broad Art Center. Students should consult an adviser in the Office of Student Services when they have questions about degree requirements. Specific questions regarding major requirements should be referred to the departmental counselor.

Henry Samueli School of Engineering and Applied Science

Degree Audits are available through MyUCLA for students who entered Fall 2012 and later. Students who entered prior to Fall 2012 should use the HSSEAS Degree Audit Reporting System (DARS) at http://www.seasoasa.ucla.edu/undergraduates/DARS to determine which degree requirements are left to complete. Students should obtain an official degree check at least one term prior to their graduation term, and can make an appointment to see their academic counselor at 6426 Boelter Hall. Students should obtain an official degree check at least one term prior to their graduation term. For details, see the HSSEAS undergraduate degree audit website at http://www.seasoasa.ucla.edu/seniors/degree-candidate-information.

School of Nursing

Degree Audits are available through MyUCLA for students who entered Fall 2012 and later. Students who entered prior to Fall 2012 may request their most recent degree check from the undergraduate student services coordinator in 2-147 Factor Building.

School of Theater, Film, and Television

Degree Audits are available through MyUCLA for students who entered Fall 2012 and later. Students who entered prior to Fall 2012 should make an appoint-
G R A D U A T E  D E G R E E S

For graduate degree requirements and procedures, see Program Requirements for UCLA Graduate Degrees and Standards and Procedures for Graduate Study at UCLA at http://www.grad.ucla.edu.

C E R T I F I C A T E  O F  R E S I D E N T  S T U D Y

International students who must leave the University and the country 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 the 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 months or more.

G R A D U AT I O N

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.

U N D E R G R A D U A T E  S T U D E N T S

Approximately eight out of every 10 UCLA freshmen eventually receive a baccalaureate degree, either from UCLA or from another campus or institution. One third of all UCLA baccalaureate recipients go on to graduate school.

D E C L A R A T I O N  O F  C A N D I D A T Y

To initiate the steps leading to the award of a bachelor’s degree, students must identify the term in which they expect to complete degree requirements through MyUCLA by the time they complete 160 units (172 units for engineering students) to avoid the late declaration of candidacy fee. The identified term must fall within the academic year (four quarters) subsequent to the term in which students reach or expect to reach the 160- or 172-unit mark. Once they complete 160/172 or more units, a fee is assessed each time students change the degree expected term.

Current-term or past-term candidates over the unit limit must file a UCLA Declaration of Candidacy form with the Registrar’s Office at 1113 Murphy Hall. The form is available online at http://www.registrar.ucla.edu/forms/.

Friday of the second week is the last day to declare candidacy for the current term (with fee depending on units completed). Declaration of candidacy after the second week may result in a degree award date for the following term and additional penalty fees.

Verify the degree expected term through MyUCLA. For questions about degree candidacy status, Letters and Science students may inquire at 1113 Murphy Hall. Arts and Architecture, Engineering, Nursing, and Theater, Film, and Television students should see their school office. A photo ID is required. Declaring candidacy is not a guarantee of graduation.

I N  A B S E N T I A  G R A D U AT I O N

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 file a request to graduate in absentia with their degree auditor in 1113 Murphy Hall by the second-week 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.

F I N A L  D E G R E E  A U D I T S  A N D  G R A D U AT I O N

Degree auditors (in the Registrar’s Office for Letters and Science students, 2200 Broad Art Center for Arts and Architecture students, 6426 Boelter Hall for Engineering students, 2-137 Factor Building for Nursing students, and 103 East Melnitz Building for Theater, Film, and Television students) 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).

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. Degree auditors notify students whose graduation eligibility cannot be verified of any requirements still outstanding and other problems in completing the degree.

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
ACADEMIC POLICIES

Contact degree auditors only for questions about degree audits. Phone numbers are in the Registrar’s Services Guide in the Student Services section of the Schedule of Classes. For graduation ceremony procedures, contact the College or schools.

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. Consult the UCLA quarter, summer sessions, and semester calendars for the degree award date, which is the final day of the term. See http://www.registrar.ucla.edu/calendar/.

COMMENCEMENT

The College and each school conduct ceremonies for their graduates. Ceremonies feature addresses and recognize candidates who have achieved high academic distinction and honors. 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.

Check with the College or school for eligibility requirements, programs, and time schedules. Further information, including the schedule of ceremonies, maps and parking, and updates, is at http://www.commencement.ucla.edu.

DIPLOMAS

Diplomas for both undergraduate and graduate students are available approximately three months after the degree award date. Information about obtaining the diploma in person or by mail is sent to students approximately six weeks after the end of their final term. To expedite receipt of diplomas, students should return the Diploma Mail Request form, available at http://www.registrar.ucla.edu/forms/. Obtain recorded diploma availability information at (310) 825-8883.

Change of Name

To be reflected on the diploma, name changes must be submitted to the Registrar’s Office, 1113 Murphy Hall, by the last day of the degree expected term. Once the degree is awarded, only a court order will be accepted to make a name change. The replacement diploma fee applies.

Duplicate Diplomas

If an original diploma is destroyed, a duplicate may be ordered by contacting the Registrar’s Office, Diploma Reorder, 1113 Murphy Hall, or by completing a Duplicate Diploma Application available at http://www.registrar.ucla.edu/forms/. There is a fee for the replacement diploma, and it bears a reissue date and the signatures of the current officials of the state and University.

GRADUATE STUDENTS

Candidates for both master’s and doctoral degrees must be advanced to candidacy and complete all degree requirements, including the master’s thesis or comprehensive examination, or doctoral dissertation, before the degree is conferred (see the Schedule of Classes calendar for filing deadlines). For graduate degree requirements and procedures, see Program Requirements for UCLA Graduate Degrees and Standards and Procedures for Graduate Study at UCLA at http://grad.ucla.edu.
College and Schools

The UCLA campus has one College and 11 professional schools. Each has its own degree requirements and is headed by a dean who has final academic authority. UCLA students enroll in the University and in the College or one of the schools described in this section.

COLLEGE OF LETTERS AND SCIENCE

David C. Schaberg, Dean of Humanities
Victoria L. Sork, Dean of Life Sciences
Joseph A. Rudnick, Dean of Physical Sciences/Senior Dean of the College
Alessandro Duranti, Dean of Social Sciences
Patricia A. Turner, Dean/Vice Provost of Undergraduate Education

UCLA
2300 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430
(310) 825-9009
http://www.college.ucla.edu

UCLA is one of the world's premier universities. At the core of the University's research programs, graduate training, and undergraduate instruction is the UCLA College of Letters and Science. With over 26,915 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 College offers more than 130 majors leading to the Bachelor of Arts, Bachelor of Science, or Bachelor of Arts and Sciences (B.A.S.), as well as to master's and doctoral degrees.

For a complete list of College of Letters and Science degrees, see the table in the front of this catalog.

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 is organized in five divisions, each led by a dean. A description of each division follows.

HUMANITIES

The Humanities Division promotes, through scholarly inquiry and the transmission of ideas, sensitive, imaginative, and rigorous reflection on the human condition. Courses in literature help students understand the enduring power of texts both great and small—from cuneiform to manuscript to hypertext. Studies of nearly 100 foreign languages create a gateway to civilizations that span the globe and five millennia of human history. Philosophers provide 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. Musicologists and 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. See http://www.humanities.ucla.edu.

LIFE SCIENCES

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. See http://lifesciences.ucla.edu.
**Physical Sciences**

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. See http://www.physics.ucla.edu.

**Social Sciences**

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. See http://socialsciences.ucla.edu.

**Undergraduate Education**

The Undergraduate Education Division serves as the campuswide advocate for undergraduate education, promoting academic success for UCLA’s diverse undergraduate population and ensuring options for all students to engage in a challenging array of educational opportunities, from foundational general education courses to advanced research and honors projects. See http://www.ugeducation.ucla.edu.

Academic Advancement Program. The Academic Advancement Program (AAP) is a multiracial, multi-ethnic, 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 University experience and their retention and graduation from UCLA. See http://aap.ucla.edu.

Center for Community Learning. The Center for Community Learning (CCL) serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, service learning courses, community-based research, service scholarships, and the Astin Scholars Program. It is home to the undergraduate minors in Civic Engagement and Disability Studies. See http://www.uei.ucla.edu/community-learning.htm.

Center for Educational Assessment. The Center for Educational Assessment (CEA) provides information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA. See http://www.oid.ucla.edu/content/center-educational-assessment.

College Academic Counseling. College Academic Counseling (CAC) provides College undergraduate students with counseling 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. See http://www.ugeducation.ucla.edu/counseling/.

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, Phi Beta Kappa, Honors Scholarships, Honors Research Stipends, and specialized counseling and support services for College honors students. See http://www.honors.ucla.edu.

New Student and Transition Programs. New Student Orientation is the first introduction to UCLA for new students. During the three-day first-year student sessions and the one-day transfer student sessions, a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones. See http://www.newstudents.ucla.edu.

Office of Instructional Development. The Office of Instructional Development (OID) supports undergraduate education by enhancing teaching and learning opportunities. Through grants, programs, and services, OID promotes the effective use of current and emerging instructional methodologies and technologies. See http://www.oid.ucla.edu.

Scholarship Resource Center. The Scholarship Resource Center (SRC) is designed to help students in the search for private scholarships, regardless of financial aid eligibility. See http://www.ugeducation.ucla.edu/src/.

Transfer Alliance Program. The Transfer Alliance Program (TAP) seeks to strengthen academic ties between UCLA and honors programs in over 45 California community colleges to provide specialized transfer programs for participating students. See http://www.tap.ucla.edu.

Undergraduate Education Initiatives. Undergraduate Education Initiatives are innovative programs designed for lower division students that feature best practices in undergraduate education and attract UCLA’s most distinguished faculty members from all campus areas. Programs include College General Education, Fiat Lux Freshman Seminar Program, Freshman Cluster Program, Undergraduate Student Initiated Education Program, and Writing II Program. See http://www.uei.ucla.edu.

Undergraduate Research Centers. Undergraduate Research Centers (URC)—one for students in the arts, humanities, social sciences, and behavioral sciences
The College of Letters and Science has seven requirements for the Bachelor of Arts or Bachelor of Science degree:

1. University requirements
2. College requirements
3. Department requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: (1) Entry-Level Writing or English as a Second Language (ESL) and (2) 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 the Undergraduate Study section for details.

The College of Letters and Science has seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, foreign language, and general education.

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 acceptable. Admission into the course is determined with a grade of C or better (C– grades are not acceptable). Students whose native language is not English may satisfy the Writing I requirement by completing English Composition 3 or an equivalent course with a grade of C or better (C– or a 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 a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section and superior performance on the English Composition 3 Proficiency Examination.

Students must complete the University’s Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the College writing requirement.

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3 or an equivalent course with a grade of C or better (C– or a Passed grade is not acceptable).

Structure of a Degree

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

Courses that do not satisfy specific University, College, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
the English as a Second Language Placement Examination (ESLPE).

Qualifying examination scores and courses are determined by the College Faculty Executive Committee. Approved courses are published in the UCLA Schedule of Classes.

Writing II. The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a list approved by the College Faculty Executive Committee. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable). Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm. Applicable courses may also be applied toward 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 College without completing, with a grade of C or better (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 grade of C or better (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 College Faculty Executive Committee. Approved courses are listed below.

Applicable courses may also be applied toward 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 grade of C or better (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.


Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: (1) completing a college-level foreign language course equivalent to level three or above at UCLA with a grade of C or Passed or better or (2) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, Spanish, or scoring 4 or 5 in Latin, thereby earning College credit or (3) 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 the regularly scheduled examinations. Students who wish to demonstrate proficiency in a language that is taught in a UCLA department that has no scheduled examination should contact the appropriate department to arrange for one. Students wishing 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.

The following language courses may be used to fulfill the foreign language requirement:

African Languages (Applied Linguistics) 1A-1B-1C or 15 (Swahili); 7A-7B-7C or 17 (Zulu); 11A-11B-11C or 25 (Yoruba); 27 (Xhosa); 29 (Igbo); 31A-31B-31C or 35 (Bambara); 41A-41B-41C or 45 (Hausa); 51A-51B-51C or 56 (Amharic); 55 (Tigrinya); 61A-61B-61C (Wolof); 75 (Chichewa); 85 (Setswana)

Afrikaans (Germanic Languages) 105A and 105B

American Sign Language (Linguistics) 1, 2, and 3, or 8

Ancient Near East (Near Eastern Languages) 120A-120B-120C (Ancient Egyptian); 140A-140B-140C (Sumerian)

Arabic (Near Eastern Languages) 1A-1B-1C or 8

Armenian (Near Eastern Languages) 1A-1B-1C or 4A-4B-4C

Bulgarian (Slavic Languages) 101A-101B-101C

Chinese (Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 8 or 8A

Czech (Slavic Languages) 101A-101B-101C

Dutch (Germanic Languages) 103A-103B, and 103C, or 104A-104B

Filipino (Asian Languages) 1, 2, and 3, or 3R or 8

French (French and Francophone Studies) 1, 2, and 3, or 8

German (Slavic Languages) 1, 2, and 3, or 8

Greek (Classics) 1, 2, and 3, or 16; 8A-8B-8C or 15 (Modern Greek)

Hebrew (Near Eastern Languages) 1A-1B-1C or 8

Hindi-Urdu (Asian Languages) 1, 2, and 3, or 3R

Hungarian (Slavic Languages) 101A-101B-101C

Indigenous Languages of the Americas (Linguistics) 17 or 18A-18B-18C (Quechua)

Indonesian (Asian Languages) 1, 2, and 3

Iranian (Near Eastern Languages) 1A-1B-1C or 8 or 20A-20B-20C (Persian); M115A-M115B-M115C (Azeri)

Italian 1, 2, and 3, or 9

Japanese (Asian Languages) 1, 2, and 3, or 8

Korean (Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 8

Latin (Classics) 1, 2, and 3, or 16

Lithuanian (Slavic Languages) 101A-101B-101C

Polish (Slavic Languages) 101A-101B-101C

Portuguese (Spanish and Portuguese) 1, 2, and 3, or 11A-11B

Romanian (Slavic Languages) 101A-101B-101C or 103

Russian (Slavic Languages) 1, 2, and 3, or 10 or 15A-15B or 100B

Scandinavian 1, 2, and 3, or 8 (Swedish); 11, 12, and 13 (Norwegian); 21, 22, and 23 (Danish)
Semotics (Near Eastern Languages) 140A-140B and 141 (Akkadian)
Serbian/Croatian (Slavic Languages) 101A-101B-101C
South Asian (Asian Languages) 110A (Sanskrit)
Spanish (Spanish and Portuguese) 1, 2, and 3, or 2A and 3A, or 10 or 11A-11B
Thai (Asian Languages) 1, 2, and 3, or 3R
Turkic Languages (Near Eastern Languages) 101A-101B-101C (Turkish); 111A-111B-111C (Uzbek); M115A-M115B-M115C (Azerbaijan)
Ukrainian (Slavic Languages) 101A-101B-101C
Vietnamese (Asian Languages) 1, 2, and 3, or 1A, 2A, and 3A, or 3R or 8
Yiddish (Germanic Languages) 101A, 101B, and 101C, or 102B

**GENERAL EDUCATION REQUIREMENTS**

General education (GE) is more than a checklist of required courses. It is a program of study that (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; (2) introduces students to the important ideas and themes of human cultures; (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society; and (4) 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**

Students follow a general education curriculum that is 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.

Students who complete a yearlong GE Cluster series (1) fulfill the Writing II requirement, (2) complete 40 percent of their general education requirements, and (3) receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the cross-listed 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

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

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

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

The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The 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 each subgroup must include either laboratory/demonstration or Writing II credit. For students entering Fall Quarter 2009 through Spring Quarter 2017, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units:

- Life Sciences
- Physical Sciences

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The 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 con-

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<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</td>
<td>1 Course</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 Course</td>
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<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 Course</td>
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<td><strong>Total</strong></td>
<td>15 units minimum</td>
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<th><strong>Foundations of Society and Culture</strong></th>
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<tr>
<td>Historical Analysis</td>
<td>1 Course</td>
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<tr>
<td>Social Analysis</td>
<td>1 Course</td>
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<tr>
<td>Third course from either subgroup</td>
<td>1 Course</td>
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<tr>
<td><strong>Total</strong></td>
<td>15 units minimum</td>
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<th><strong>Foundations of Scientific Inquiry</strong></th>
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<tr>
<td>Life Sciences</td>
<td>2 Courses</td>
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<td>Physical Sciences</td>
<td>2 Courses</td>
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<tr>
<td>In each subgroup, one of the two courses must be 5 units and carry either laboratory/demonstration or Writing II credit. For students entering Fall Quarter 2009 through Spring Quarter 2017, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units.</td>
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<tr>
<td><strong>Total</strong></td>
<td>18 units minimum (17 min. Fall 2009-Spring 2017)</td>
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| **Total GE** | 10 Courses/48 Units Minimum |
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 an academic counselor or see http://www.registrar.ucla.edu/ge/.

**Advanced Placement Examination Credit**

Students may not use Advanced Placement (AP) Examination credit to satisfy the College's 10-course foundational area general education requirement. See the AP Chart at http://www.admission.ucla.edu/prospect/APCreditLS.htm. Consult a departmental counselor 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 a College 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 UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA.

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, the remaining courses must be completed with a minimum grade of C in each. Students who fail to complete the remaining IGETC coursework or who are otherwise not eligible for IGETC or partial IGETC are required to complete the College GE requirements.

**Department Requirements**

College departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) the Major (upper division courses). Departments also set requirements for minors and specializations.

**Preparation for the Major**

Admission to a major often requires completion of a set of courses known as Preparation for the Major. 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 requirements; see the Curricula and Courses section of this catalog.

**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 the University 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 the Curricula and Courses section of this catalog.

**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 subject area 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 the University and have completed at least three terms of work (45 units minimum) at the University with a grade-point average of 3.4 or better, they may petition for an individual major that is also a designated capstone major. The consent of the 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, (310) 825-1553. See http://www.honors.ucla.edu/individual.html.

**Double Majors.** Students in good academic standing 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.

With few exceptions, double majors in the same department are unacceptable. No more than 20 upper division units may be common to 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.

For a list of minors and specializations, see the chart at the beginning of this catalog; descriptions are in the Curricula and Courses section.

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. 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 B 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 campus of the University 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.

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.

The Degree Progress Report (DPR) or 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 catalog, check the online catalog for updates, and consult regularly with the College and department counselors to confirm they are satisfying all program requirements. Department counselors advise students on progress and completion of the major requirements. Counselors in College Academic Counseling, the Academic Advancement Program, Honors Programs, and Student Athletics Counseling assist students with College requirements and degree planning and provide DPRs or Degree Audits on request. Students can also view DPRs or Degree Audits through MyUCLA.

MINIMUM PROGRESS/EXPECTED CUMULATIVE PROGRESS

During a regular term of enrollment, undergraduate students in the College are required to enroll in a minimum of 13 units. Students are also required to meet cumulative progress unit expectations as outlined in the Expected Cumulative Progress Chart at http://www.uveducation.ucla.edu/counseling/esp-cum-prog.html.

The following courses count toward minimum progress and expected cumulative progress but are exempt from the maximum unit limit of 216: 19 ( Fiat Lux), 88S (Undergraduate Student Initiated Education seminars), 89 and 189 (honors seminars), 89HC and 189HC (honors contracts), M97X (PEERS lectures), 98X, 98XA, and 98XB (PEERS laboratories), 99 (student research tutorials), 190 (research colloquia), 193 (journal club seminars), 194 (research group or internship seminars), Honors Collegium 101A through 101E, Mathematics 71SL, 72SL, Science Education 1SL, and 10SL.

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 units or less 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 the tuition fee by one half and a reduction of the nonresident supplemental tuition fee 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 of 10 units or less 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 the petition, Undergraduate Request for Fee Reduction, from College Academic Counseling. 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 the 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).

Most entering freshmen are unsure about specific academic goals and request to be admitted to the College as “undeclared.” These students then explore fields of study by taking introductory courses in the physical and life sciences, social sciences, and humanities in search of an area that most excites their interest.

All students with 90 or more units toward a degree are expected to declare a premajor or a major. When they are ready to do so, they obtain approval on a Petition for Declaration of Major 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. 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. Some departments may have higher grade-point requirements for their preparation and major courses; consult the appropriate department regarding minimum standards.

RE-ENTERING STUDENTS AND THEIR MAJORS

Students returning to the University to resume their studies after an absence of several years may find their previous major area of study no longer available. They then must select a current major in which to complete their studies. Consult an academic counselor for assistance.

CREDIT LIMITATIONS

The following credit limitations apply to all undergraduate students enrolled in the College. In most cases units are not deducted until the final term before graduation. Students with questions should consult an academic counselor.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Progress Report (DPR) or Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferable units that apply toward the degree in the College. Consult a counselor in College Academic Counseling 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 AP Chart at http://www.admission.ucla.edu/prospect/APCreditList.htm 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 Unit Limit. After completing 105 quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college.

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 UCLA 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 they 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 the Honors Programs Office, A311 Murphy Hall.

Education Abroad Program. Students participating in the Education Abroad Program may receive a maximum of 48 units of credit toward the degree in addition to the 8 units maximum allowed for the 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 (1) courses taken in native colleges and universities or (2) 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 (Music 6, 16, 56 through 65, C109A, C113A, C115, 116, Ethnomusicology 91A through 91Z, 161A through 161Z, Music 60A through 65, C90A through 90S, 160A through 165, and World Arts and Cultures 5, 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, 6A, and 10 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 the following introductory statistics courses: Statistics 10, 12, 13 (or former 10H, 11, or 14), or any equivalent course taken at UCLA or 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 departmental listing.

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 in UCLA Extension.

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 provides exceptional undergraduate students an opportunity to pursue individual excellence.

For details on the College Honors program and entry requirements, see http://www.honors.ucla.edu/program.html.

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 the student records:

(1) a 3.75 grade-point average in any one term with at least 12 graded units and no grade of NP or I or (2) a 3.66 GPA and at least 56 grade points during the term, with no grade of NP or I. Dean’s Honors are automatically recorded on the transcript.

DEPARTMENTAL HONORS

Individual departments and programs in the College offer departmental honors programs. Admission and curricular requirements vary according to the department or program. See the Curricula and Courses section of this catalog for details, and consult the 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 at graduation that places them in the top five percent of College graduates (GPA of 3.897 or better) for summa cum laude, the next five percent (GPA of 3.821 or better) for magna cum laude, and the next 10 percent (GPA of 3.698 or better) for 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 Progress Reports, Degree Audits, or the Schedule of Classes for the most current calculations of Latin honors.

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 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. For further information, contact the Honors Programs Office in A311 Murphy Hall or see http://www.honors.ucla.edu/deptschl.html.

GRADUATE STUDY

The College of Letters and Science provides graduate students virtually unlimited opportunities for academic pursuit, faculty-sponsored research, and fieldwork relative to specific programs and career goals.

With Graduate Division approval and subject to University minimum requirements, each department sets its own standards for admission and other requirements for the award of master’s and doctoral degrees. For complete degree requirements, see Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

DAVID GEFFEN SCHOOL OF MEDICINE

A. Eugene Washington, Dean and Vice Chancellor

UCLA

12-105 Center for the Health Sciences

Box 957035

Los Angeles, CA 90095-7035

(310) 825-6081

e-mail: somadmiss@mednet.ucla.edu

http://dgsom.healthsciences.ucla.edu/dgsom

/education/

At the David Geffen School of Medicine at UCLA, faculty members and students play a dynamic role on campus and in the Los Angeles community. Not only are they in the clinics, wards, and operating rooms of the Ronald Reagan UCLA Medical Center and multiple private and public affiliated medical centers, they are also at work in the facilities of many research programs of the school and broader University. They volunteer in community clinics, health fairs, and public schools, and participate in research and clinical care in multiple global settings.

Students at the Geffen School of Medicine are exposed to the best of many worlds—strong research-oriented basic and clinical science departments, a hospital consistently ranked among the nation’s elite, superb affiliated clinical facilities that provide the full spectrum of teaching settings and patient populations, a biomedical library that is considered one of the world’s best, and a multidisciplinary global health program. Geffen School of Medicine departments are staffed by a distinguished faculty of respected researchers and practitioners.

DEGREES

The Geffen School of Medicine offers an M.D. degree program, special programs in affiliation with other hospitals and universities, postgraduate medical training programs, and the following master’s and doctoral degrees offered through the UCLA Graduate Division:

Biological Chemistry (M.S., Ph.D.)

Biomathematics (M.S., Ph.D.)

Biomedical Physics (M.S., Ph.D.)

Clinical Research (M.S.)

Human Genetics (M.S., Ph.D.)
The curriculum is an innovative, integrated, organ system-based program, with problem-based learning case studies to link basic, clinical, and social studies. Because medical school is but one phase in a physician’s education, the curriculum stresses self-directed learning to prepare students for a future in which scientific knowledge, social values, and human needs are ever changing. Formats for instruction include lectures, problem-based learning tutorials, seminars, laboratories, standardized patient exercises, and clinical experiences; students are involved in patient care from their first week through graduation.

The M.D. 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. The curriculum emphasizes issues of growing importance such as primary care, research opportunities for careers in academic medicine, human genetics and the evolving world of gene therapy, psychosocial issues of health and disease, evidence-based medicine, medical ethics, and clinical reasoning.

For details on the M.D. curriculum or to apply to the program, see http://www.medstudent.ucla.edu/prospectives/ or contact the Geffen School of Medicine Admissions Office, 12-105 Center for the Health Sciences, UCLA, Box 957035, Los Angeles, CA 90095-7035. See http://career.ucla.edu/Students/GradProfSchCounseling/Overview for details on the four-year premedical studies program.

SPECIAL PROGRAMS

PARTNERSHIP PROGRAMS

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 M.D. 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 (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. See http://www.cdrewu.edu/com/pgm/CDUUCLA.

UCLA PRIME Program

The UCLA PRIME Program is a five-year program to develop leaders in medicine who address policy, care, and research issues in healthcare for underserved populations. A commitment to serve and experience in working with diverse medically disadvantaged populations is paramount. The program leads to the M.D. and a master’s degree in areas that complement the mission of the program. Each year the class is comprised of 14 students. Students identify with one of two programs: PRIME UCLA-WESTWOOD or PRIME UCLA-CDU. Following successful completion of the required clinical clerkships, students pursue a one-year master’s degree. See http://www.medsch.ucla.edu/uclaprime/ or call (310) 794-5912.

ARTICULATED AND CONCURRENT DEGREE PROGRAMS

Medical Scientist Training Program

The Geffen School of Medicine and the Graduate Division offer an articulated degree program that allows students to earn both the M.D. and Ph.D. in about eight years, depending on the course of study and research. The Ph.D. may be awarded in one of several medical sciences fields. Call the Medical Scientist Training Program at (310) 794-1817 for details or see http://mstp.healthsciences.ucla.edu.

M.D./M.B.A., M.D./M.P.H., M.D./M.P.P.

Concurrent programs with the Anderson Graduate School of Management and Luskin School of Public Affairs and an articulated program with the Fielding School of Public Health allow UCLA medical students to earn both the M.D. and M.B.A., M.D. and M.P.P., or the M.D. and M.P.H. degrees over five years by following a designated course of study and some shared coursework. Separate application must be made to the Anderson School, Luskin School of Public Affairs, or the Fielding School of Public Health during the third year of medical school. Call (310) 825-3970 for information.

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

Microbiology, Immunology, and Molecular Genetics (M.S., Ph.D.)
Molecular and Medical Pharmacology (M.S., Ph.D.)
Molecular, Cellular, and Integrative Physiology (Ph.D.)
Neurobiology (M.S., C.Phil., Ph.D.)
Neuroscience (Ph.D.)
Pathology—Cellular and Molecular Pathology (M.S., Ph.D.)
Psychiatry and Biobehavioral Sciences Clinical Psychology Internship (Certificate)

Students at the Geffen School of Medicine are exposed to the best of many worlds—strong research-oriented basic and clinical science departments, a hospital consistently ranked among the nation’s elite, and superb clinical facilities.
providing 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.

SEMEI 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 provide a comprehensive and outstanding research and training environment for the study of neuroscience and behavior.

The research portfolio of the 400 faculty members, graduate students, and fellows who work in the institute spans behavioral genetics, developmental neurobiology, cognitive neuroscience, neuropharmacology, brain imaging, clinical research, health policy, and sociocultural studies of human behavior and its disorders. For further information, see http://www.semel.ucla.edu.

GRADUATE SCHOOL OF EDUCATION AND INFORMATION STUDIES

Marcelo M. Suárez-Orozco, Dean

UCLA
1009 Moore Hall
Box 951521
Los Angeles, CA 90095-1521
(310) 825-8326
fax: (310) 794-4732
e-mail: info@gseis.ucla.edu
http://gseis.ucla.edu

The Graduate School of Education and Information Studies (GSE&IS) is dedicated to inquiry, the advancement of knowledge, the improvement of professional practice, and service to the education and information professions. GSE&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 GSE&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.

GSE&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, and information professionals, teachers, student affairs practitioners, school administrators, and superintendents are prepared in the various master’s and doctoral professional degree programs. Additionally, UCLA Lab School (Corinne A. Seeds campus) provides an innovative educational program for students 4 to 12 years old.

DEGREES

The school offers the following degrees, in addition to an undergraduate minor in Education Studies:

Education (M.A., M.Ed., Ed.D., Ph.D.)
Educational Administration (Joint Ed.D. with UC Irvine)
Information Studies (Ph.D.)
Library and Information Science (M.L.I.S., accredited by American Library Association)
Moving Image Archive Studies (M.A.)
Special Education (Joint Ph.D. with California State University, Los Angeles)

Credential Programs

The school offers two credential programs that are accredited by the California Commission on Teacher Credentialing:

Preliminary Administrative Services Credential
Teacher Credential

Articulated Degree Programs

The school offers two articulated degree programs:

Education M.Ed./Latin American Studies M.A.
Library and Information Science M.L.I.S./Latin American Studies M.A.

Concurrent Degree Programs

The school offers two concurrent degree programs:

Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.
Library and Information Science M.L.I.S./Management M.B.A.

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 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 under-graduate study and in any postbaccalaureate study. Further requirements for international students are explained in the Graduate Study section. See http://grad.ucla.edu/gasaa/admissions/admisinfo.html.

Departments and programs in the school set additional admission requirements. See http://gseis.ucla.edu.
DEGREE REQUIREMENTS

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

RESEARCH CENTERS AND INSTITUTES

The centers and institutes outlined below provide GSE&IS with valuable resources that support school programs and research. See http://gseis.ucla.edu/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. See http://www.blackmaleinstitute.org.

CENTER FOR GLOBAL EDUCATION

The Center for Global Education promotes international education to foster cross-cultural awareness, cooperation, and understanding. The center collaborates with colleges, universities, and other organizations around the world to create new and enhance existing study abroad programs, integrate an international and intercultural perspective into the U.S. educational system, increase the ethnic diversity of participants in study abroad, and provide resources to support their participation. See http://globaled.us.

CENTER FOR IMPROVING CHILD CARE QUALITY

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

CENTER FOR INFORMATION AS EVIDENCE

The Center for Information as Evidence (CIE) serves as 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. See http://legacy.gseis.ucla.edu/cie/.

CENTER FOR INTERNATIONAL AND DEVELOPMENT EDUCATION

The Center for International and Development Education (CIDE) is a research and action center whose mission is to enhance educational capacity, facilitate human and economic development, and promote cross-cultural exchanges related to international and development education. This is accomplished through a series of publications, research programs, practical initiatives, and networks with existing development and academic institutions. See http://www.cideucla.org.

CENTER FOR RESEARCH AND INNOVATION IN ELEMENTARY EDUCATION

The Center for Research and Innovation in Elementary Education (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. See http://www.connect.gseis.ucla.edu.

CENTER FOR STUDY OF EVALUATION/NATIONAL CENTER FOR RESEARCH ON EVALUATION, STANDARDS, AND STUDENT TESTING

The Center for Study of Evaluation (CSE)/National Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CSE/CRESST provides leadership to the field 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. See http://www.cse.ucla.edu.

CENTER X

Center X provides a unique setting where researchers and practitioners collaborate to design and conduct programs that prepare and support K-12 education professionals committed to social justice, instructional excellence, the integration of research and practice, and caring in low-income urban schools. See http://centerx.gseis.ucla.edu.

CIVIL RIGHTS PROJECT/PROYECTO DERECHOS CIVILES

The Civil Rights Project/Proyecto Derechos Civiles (CRP) is a research center 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 13 books, been cited in major Supreme Court decisions on affir-
mative action, and issued numerous reports from authors at universities and research centers across the country. See http://civilrightsproject.ucla.edu.

**HIGHER EDUCATION RESEARCH INSTITUTE**

The Higher Education Research Institute (HERI) conducts research, evaluation, information, policy studies, and research training in postsecondary education. HERI’s 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. See http://heri.ucla.edu/index.php.

**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. See http://www.idea.gseis.ucla.edu.

**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 serves to inform efforts to expand opportunities, reduce barriers, and improve the wellbeing 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. See http://ige.gseis.ucla.edu.

**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. See http://www.paulofreireinstitute.org.

**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 GSE&IS scholars to policymakers, educators, and the general public. Sudikoff Fellows are selected each year from GSE&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. See http://sudikoff.gseis.ucla.edu.

**UC ALL-CAMPUS CONSORTIUM ON RESEARCH FOR DIVERSITY**

The UC All-Campus Consortium on Research for Diversity (UC ACCORD) is an interdisciplinary, multicampus research center devoted to a more equitable distribution of educational resources and opportunities in California’s diverse public schools and universities. UC ACCORD leverages the research capacity of the UC system to influence policy and practice to produce more positive educational outcomes for low-income and underrepresented students. See http://ucaccord.gseis.ucla.edu.

**UC EDUCATIONAL EVALUATION CENTER**

The UC Educational Evaluation Center (UCEC) utilizes the systemwide expertise of nationally recognized scholars to address educational problems through the rigorous evaluation of potential educational solutions. Through these evaluations, the UCEC contributes to the knowledge base of effective policies and practices (PK–20 and beyond) with the goal of improving data use and decision making. See http://uccic.gseis.ucla.edu.

**HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE**

Vijay K. Dhir, Dean

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(310) 825-2826
http://www.engineer.ucla.edu

The UCLA Henry Samueli School of Engineering and Applied Science (HSSEAS), founded in 1945, is committed to creating a better future for Los Angeles, California, the nation, and the world. Over the years, UCLA Engineering has grown into one of the top engineering programs in the country. Though the school has changed in many ways, it has not wavered from its early vision of developing an engineering program with imagination and integrity. As part of a great public University, the school is committed to a core mission of teaching, research, and service.

UCLA Engineering supports dynamic programs in traditional and new areas of study and research, including bioengineering and biotechnology, embedded networked sensing systems, information technology including wireless communications and computing, signal processing, sensor technologies, flight and autonomous systems, alternative energy systems, smart structures and materials, and protection of the environment. Partnerships across campus reflect the school’s commitment to a wide range of interdisciplinary activities.

Students receive their education through lectures and gain hands-on experience through laboratories and
The school offers the following degrees, in addition to undergraduate minors in Bioinformatics and in Environmental Engineering:

- Aerospace Engineering (B.S., M.S., Ph.D.)
- Bioengineering (B.S., M.S., Ph.D.)
- Chemical Engineering (B.S., M.S., Ph.D.)
- Civil Engineering (B.S., M.S., Ph.D.)
- Computer Science (B.S., M.S., Ph.D.)
- Computer Science and Engineering (B.S.)
- Electrical Engineering (B.S., M.S., Ph.D.)
- Engineering (M.Eng., online M.S., Engr.)
- Engineering and Applied Science (Graduate Certificate of Specialization)
- Manufacturing Engineering (M.S.)
- Materials Engineering (B.S.)
- Materials Science and Engineering (M.S., Ph.D.)
- Mechanical Engineering (B.S., M.S., Ph.D.)

**Concurrent Degree Program**

The school offers one concurrent degree program:

Computer Science M.S./Management M.B.A.

**Undergraduate Admission**

Applicants for admission to the school must satisfy the University admission requirements as outlined in the Undergraduate Study section. Students must apply directly to HSSEAS by selecting one of the majors within the school or the undeclared engineering option. In the selection process many elements are considered, including grades, test scores, and academic preparation.

Applicants are accepted at either the freshman or junior level.

**Admission as a Freshman**

Freshman applicants must satisfy the examination requirement described in the Undergraduate Study section and should take required tests by the December test date, since scores are part of the review process. Instruct the testing agencies to send results directly to Undergraduate Admission.

Applicants must submit scores from an approved core test of mathematics, language arts, and writing. This requirement may be satisfied by taking either (1) the ACT Assessment plus Writing Tests or (2) the SAT Reasoning Test. Applicants to the school are strongly encouraged to also take the following SAT Subject Tests: Mathematics Level 2 and a laboratory science test (Biology E/M, Chemistry, or Physics) that is closely related to the intended major.

Freshman applicants must meet the University subject, scholarship, and examination requirements described at http://www.admission.ucla.edu.

**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 2014 fulfills HSSEAS requirements as indicated on the school AP Chart at http://www.admission.ucla.edu/prospect/APCreditEN.htm.

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 B.S. 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 UCLA's Chemistry and Biochemistry 20A, 20B, 20L (only Chemistry and Biochemistry 20A is required for the Computer Science, Computer Science and Engi-
neering, and Electrical Engineering majors; the Bioengineering and Chemical Engineering curricula also require Chemistry and Biochemistry 30A, 30AL, 30B, 30BL, which do not need to be taken prior to admission to UCLA.


3. Physics courses equivalent to UCLA’s Physics 1A, 1B, 1C, 4AL, 4BL, depending on curriculum selected

4. Computer programming courses in C++, C, or Java (C++ is strongly recommended); applicants to majors in Computer Science, Computer Science and Engineering, and Electrical Engineering must take a programming course in C++, preferably one equivalent to UCLA’s Computer Science 31

5. Additional life sciences (4 units), English composition (5 units), and humanities/social sciences courses (total of 16 quarter units minimum) equivalent to HSSEAS general education (GE) courses

Transfer students must also complete a course equivalent to UCLA’s English Composition 3 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, are given credit for certain engineering core requirements.

Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Electrical Engineering 100, Civil and Environmental Engineering 108, and Materials Science and Engineering 104 requirements respectively. Check with the Office of Academic and Student Affairs.

UNDERGRADUATE DEGREE REQUIREMENTS

Henry Samueli School of Engineering and Applied Science students must meet three types of requirements for the Bachelor of Science degree:

1. University requirements
2. School requirements
3. Department requirements

UNIVERSITY REQUIREMENTS

The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

SCHOOL REQUIREMENTS

The Henry Samueli School of Engineering and Applied Science has seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, technical breadth, ethics, and general education.

UNIT REQUIREMENT

The minimum units allowed for HSSEAS students is between 183 and 190, 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 C (2.0) 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 B.S. degree, 36 must be earned in residence in HSSEAS 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 University’s 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 letter grades, and students must receive grades of C or better (C– grades are not acceptable).

Writing I. The Writing I requirement must be satisfied by completing English Composition 3 with a grade of C or better (C– or a Passed grade is not acceptable) by the end of the second year of enrollment.

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 a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section and superior performance on the English Composition 3 Proficiency Examination.

Students whose native language is not English may satisfy the Writing I requirement by completing English as a Second Language 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission into the course is determined by completion of English as a Second Language 35 with a grade of C or better demonstrated on the English as a Second Language Placement Examination (ESLPE).

Engineering Writing. The engineering writing requirement is satisfied by selecting one approved engineering writing (EW) course from the HSSEAS writing course list or by selecting one approved Writing II (W) course.
The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable). Writing courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm.

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 HSSEAS Faculty Executive Committee-approved technical breadth requirement courses is available in the Office of Academic and Student Affairs, 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 183EW or 185EW with a grade of C or better (C– or a 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 (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge, (2) introduces students to the important ideas and themes of human cultures, (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society, and (4) 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 basis if they are in good academic standing and are enrolled in at least three and one-half courses (14 units) for the term. For details on P/NP grading, see Grading in the Academic Policies section or consult 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 cross-listed 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

The aim of courses in this area is to provide perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide 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

The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The 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 M166/Environmental Health Sciences M166: Life Sciences

This requirement is automatically satisfied for Bioengineering and Chemical Engineering majors. The requirement may be satisfied for Civil Engineering majors if students select an approved major field elective that is also a course approved under Foundations of Scientific Inquiry.

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The 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 an academic counselor or see http://www.registrar.ucla.edu/ge/.

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 which 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

Henry Samueli School of Engineering and Applied Science departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) 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 the Curricula and Courses section of this catalog.

THE MAJOR

Students must complete their major with a scholarship average of at least a 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade. See the Curricula and Courses section of this catalog for details on each major.

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. 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 the University 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 less than 12 units must obtain approval by petition to the dean prior to enrollment in courses. 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 HSSEAS undergraduate students must complete a minimum of 36 units in three consecutive terms in which they are registered.
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 HSSEAS AP Chart at http://www.admission.ucla.edu/prospect/APCreditEN.htm.

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

Community College Unit Limit. After students have completed 105 quarter units (regardless of where the units are completed), they do not receive unit credit or subject credit for courses completed at a community college.

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 units or less, 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 repeated on the same basis or for a letter grade.

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 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.

MINORS AND DOUBLE MAJORS

HSSEAS students in good academic standing may be permitted a minor or double major. The minor or second major must be outside the school (e.g., Electrical Engineering major and Economics major). HSSEAS students are not permitted to 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.

While HSSEAS considers minor or double major requests, specializations are not considered at this time. Students interested in a minor or double major should meet with their counselor in 6426 Boelter Hall.

COUNSELING SERVICES

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. Students are assigned a faculty adviser in their particular specialization in their freshman year.

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 the degrees and University and school regulations and procedures. It is the students’ responsibility to periodically meet with their academic counselor in the Office of Academic and Student Affairs, 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, providing 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 at https://my.ucla.edu. Students should contact their academic counselor in 6426 Boelter Hall with any questions.

Students following the 2005-06 through 2011-12 catalog years use the program called Degree Audit Reporting System (DARS) and should contact their academic counselor in 6426 Boelter Hall with any questions. See http://www.seasoasa.ucla.edu/undergraduates/DARS.

Undergraduate students following a catalog year prior to 2005-06 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.

Academic counselors in the Office of Academic and Student Affairs assist students with University procedures and answer questions related to general requirements.

HONORS

HSSEAS undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

DEAN’S HONORS LIST

Students following the engineering curricula are eligible to be named to the Dean's Honors List each term. Minimum requirements are a course load of at least 15 units (12 units of letter grade) with a grade-point average equal to or greater than 3.7. Students are not eligible for the Dean's Honors List if they receive an Incom-
The student body takes an active part in shaping policies on the school's Faculty Executive Committee. The UCLA chapter of Tau Beta Pi, the national engineering honor society, encourages high scholarship, provides volunteer tutors, and offers many services and programs to foster a spirit of liberal culture in engineering colleges. See http://tbp.seas.ucla.edu.

**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 at graduation which places them in the top five percent of the school (GPA of 3.872 or better) for summa cum laude, next five percent (GPA of 3.775 or better) for magna cum laude, and the next 10 percent (GPA of 3.631 or better) for 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, engineering students must have a 3.872 grade-point average for summa cum laude, a 3.775 for magna cum laude, and a 3.631 for cum laude. For all designations of honors, students must have a minimum 3.25 GPA in their major field courses. To be eligible for an award, students should have completed at least 80 upper division units at the University of California.

**Tau Beta Pi**

The UCLA chapter of Tau Beta Pi, the national engineering honor society, encourages high scholarship, provides volunteer tutors, and offers many services and programs to foster a spirit of liberal culture in engineering colleges. See http://tbp.seas.ucla.edu.

**Departmental Scholar Program**

Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue 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, the current minimum grade-point average required for honors at graduation, 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, consult the Office of Academic and Student Affairs in 6426 Boelter Hall well in advance of application dates for admission to graduate standing.

**Special Programs**

**Extracurricular Activities**

Students are encouraged to participate in UCLA extracurricular activities, especially those relevant to engineering, such as the student engineering society (the 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's Faculty Executive Committee.

**Women in Engineering**

Among HSSEAS students, women make up approximately 22 percent of the undergraduate and 20 percent of the graduate enrollment. Today's opportunities for women in engineering are excellent, as both employers and educators try to change the image of engineering as a males-only field. Women engineers are in great demand in all fields of engineering.

The Society of Women Engineers (SWE), recognizing that women in engineering are still a minority, has established a UCLA student chapter that sponsors field trips and engineering-related speakers (often professional women) to introduce the various options available to women engineers. The UCLA chapter of SWE, in conjunction with other Los Angeles schools, also publishes an annual resume book to aid women students in finding jobs and presents a career day for women high school students. See http://www.seas.ucla.edu/swe/.

**Continuing Education**

Continuing education in engineering is developed and administered by the UCLA Extension (UNEX) Department of Engineering and Technology in close cooperation with HSSEAS. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace. The office (540 UNEX, 10995 Le Conte Avenue) is open Monday through Friday. Call (310) 825-4100 for information systems and engineering programs, (310) 825-3344 for short course programs, (310) 206-1548 for technical management classes, and (310) 825-3858 for the Technical Management Program. See https://www.uclaextension.edu/eistm/Pages/default.aspx.

**Graduate Admission**

In addition to meeting the requirements of the Graduate Division, applicants to the HSSEAS graduate programs are required to take the General Test of the Graduate Record Examination (GRE). Specific information about the GRE may be obtained from the department of interest.

Students entering the Engineer/Ph.D. program normally are 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. Normally the M.S. degree is required for admission to the Ph.D. program. Exceptional students, however, can be admitted to the Ph.D. program without having an M.S. degree.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

To submit a graduate application, see http://www.seas.oasa.ucla.edu/admissions/graduate-admissions. From there connect to the site of the preferred department or program and go to the online graduate application.
**GRADUATE DEGREE REQUIREMENTS**

Graduate degree information is updated annually in *Program Requirements for UCLA Graduate Degrees* at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

**MASTER OF SCIENCE DEGREES**

No lower division courses may be applied toward graduate degrees. In addition, the various departments generally do not allow, for graduate degree credit, courses required of their undergraduate students. Consult the departmental graduate affairs office for more information.

Individual departments within the school 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 M.S. program focuses on one major field. The major fields and subdisciplines offered at the M.S. level in most cases parallel those listed below for the Ph.D. program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the M.S. level). Contact the department concerned regarding possible differences between the M.S. and Ph.D. 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 the M.S. degrees, 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 courses in HSSEAS. 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 else provide 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 the award of the M.S. 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* at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

**CONCURRENT DEGREE PROGRAM**

A concurrent degree program between HSSEAS and the Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the M.B.A. and the M.S. in Computer Science. Contact the Office of Academic and Student Affairs for details.

**MASTER OF SCIENCE IN ENGINEERING ONLINE DEGREE**

The primary purpose of the Master of Science in Engineering online self-supporting degree program is to enable employed engineers and computer scientists to augment their technical education beyond the Bachelor of Science degree and to enhance their value to the technical organizations in which they are employed. For further information, see http://msol.seas.ucla.edu.

**MASTER OF ENGINEERING DEGREE**

The Master of Engineering (M.Engr.) degree is granted to graduates of the Engineering Executive Program, a two-year work-study program consisting of graduate-level professional courses in the management of technological enterprises. For details, write to the HSSEAS Office of Academic and Student Affairs, 6426 Boelter Hall, UCLA, Box 951601, Los Angeles, CA 90095-1601, (310) 825-2514.

**ENGINEER DEGREE**

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

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

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

**PH.D. DEGREES**

The Ph.D. 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 further information, contact the individual departments.
Fields of Study
Established fields of study for the Ph.D. are listed below. With the support of an adviser, students may propose any other field of study to their department. Instructions on the definition of acceptable ad hoc fields and procedures for their approval are available in each department office.

Bioengineering Department. Biomedical instrumentation; biomedical signal and image processing; biosystems science and engineering; medical imaging informatics; molecular cellular tissue therapeutics; neuroengineering

Chemical and Biomolecular Engineering Department. Chemical engineering

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

Computer Science Department. Artificial intelligence, computational systems biology, computer network systems, computer science theory, computer system architecture, graphics and vision, information and data management, software systems

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

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

Mechanical and Aerospace Engineering Department. Applied mathematics (established minor field only), applied plasma physics (minor field only), dynamics, fluid mechanics, heat and mass transfer, manufacturing and design, nanoelectromechanical/microelectromechanical systems (NEMS/MEMS), structural and solid mechanics, systems and control

Graduate Certificate of Specialization
A Certificate of Specialization is available in all areas, except computer science, offered by HSSEAS. Requirements for admission are the same as for the M.S. 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 B average in all courses applicable to the certificate. In addition, graduate certificate candidates are required to maintain a minimum B average in 200-series courses used in the certificate 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 regarding the certificate programs may be obtained from each department office.

Courses completed in HSSEAS for a Certificate of Specialization may subsequently be applied toward master's and/or doctoral degrees.

John E. Anderson Graduate School of Management
Judy D. Olian, Dean
UCLA
F407 Mullin Management Commons
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(310) 825-7982
fax: (310) 206-2073
http://www.anderson.ucla.edu

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 a 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 provide 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 M.B.A. or a Ph.D. 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 doctoral levels. These include a professional (M.B.A.) master’s and a Master of Financial Engineering (M.F.E.), as well as an Executive M.B.A. Program designed for working managers who are moving from specialized areas into general management and a three-year Fully Employed M.B.A. Program for emerging managers. The school also offers dual Global Executive M.B.A. degrees with the National University of Singapore (NUS) Business School and with the Universidad Adolfo Ibáñez (UAI).
in Santiago, Chile, that prepare participants for top positions in organizations around the world. A Ph.D. in Management is also offered, as are a certificate Executive Program and research conferences and seminars for experienced managers.

The school also offers an undergraduate minor in Accounting and several undergraduate courses in management. Enrollment in these courses, although open to all University students who have completed the prerequisites, is limited.

DEGREES AND PROGRAMS

The school offers the following degrees, in addition to an undergraduate minor in Accounting:

- Master of Business Administration (M.B.A.)
- Executive Master of Business Administration (EMBA)
- Fully Employed Master of Business Administration (FEMBA)
- Global Executive M.B.A. for the Americas (GEMBA—dual degree program with Universidad Adolfo Ibáñez in Chile)
- Global Executive M.B.A. for Asia Pacific (GEMBA—dual degree program with National University of Singapore)
- Master of Financial Engineering (M.F.E.)
- Master of Science (M.S.)
- Candidate in Philosophy (C.Phil.)
- Doctor of Philosophy (Ph.D.)

Concurrent Degree Programs

The school offers 10 concurrent degree programs:

- Management M.B.A./Computer Science M.S.
- Management M.B.A./Dentistry D.D.S.
- Management M.B.A./Latin American Studies M.A.
- Management M.B.A./Law J.D.
- Management M.B.A./Library and Information Science M.L.I.S.
- Management M.B.A./Medicine M.D.
- Management M.B.A./Nursing M.S.N.
- Management M.B.A./Public Health M.P.H.
- Management M.B.A./Public Policy M.P.P.

Office of Executive Education

Lifelong learning plays a critical role in the success of today's business leaders. The school's Office of Executive Education offers more than 40 innovative open enrollment and customized programs that address complex and rapidly changing business issues. The Executive Program covers such diverse areas as strategic planning, organizational design, and competitive positioning. See http://www.anderson.ucla.edu/executive-education.

RESEARCH CENTERS

Six interdisciplinary research centers provide valuable resources that support school programs: Center for Global Management (CGM), Center for Management of Enterprise in Media, Entertainment, and Sports (MEMES), Harold and Pauline Price Center for Entrepreneurial Studies, Laurence D. and Lori W. Fink Center for Finance and Investments, Richard S. Ziman Center for Real Estate, and the UCLA Anderson Fore-
The school offers the following degrees, in addition to the Department of Biostatistics develops statistical applications 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 healthcare services. The school also administers an interdepartmental degree program in molecular toxicology. See the Curricula and Courses section for further information on each department.

DEGREES AND PROGRAMS

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 healthcare services. The school also administers an interdepartmental degree program in molecular toxicology. See the Curricula and Courses section for further information on each department.

DEGREES AND PROGRAMS

The school offers the following degrees, in addition to an undergraduate minor in Public Health:

- Biostatistics (M.S., Ph.D.)
- Community Health Sciences (M.P.H.-HR, M.S., Ph.D.)
- Environmental Health Sciences (M.S., Ph.D.)
- Epidemiology (M.S., Ph.D.)
- Health Policy and Management (EMPH, M.S., Ph.D.)
- Molecular Toxicology (Ph.D.)
- Preventive Medicine and Public Health (M.S.)
- Public Health (M.P.H., Dr.P.H.)

New students are not being admitted to the M.S. in Preventive Medicine and Public Health at this time.

Articulated Degree Programs

The school offers two articulated degree programs:

- Public Health M.P.H./Latin American Studies M.A.
- Public Health M.P.H./Medicine M.D.

Concurrent Degree Programs

The school offers eight concurrent degree programs:

- Public Health M.P.H./African Studies M.A.
- Public Health M.P.H./Asian American Studies M.A.
- Public Health M.P.H./Islamic Studies M.A.
- Public Health M.P.H./Law J.D.
- Public Health M.P.H./Management M.B.A.
- Public Health M.P.H./Public Policy M.P.P.
- Public Health M.P.H./Social Welfare M.S.W.

ADMISSION

Admission criteria established by the UCLA Graduate Division require a bachelor's degree from a regionally accredited institution comparable in standard and content to a bachelor's degree from the University of California. A scholastic average of B (3.0 on a 4.0 scale) or better is required—or its equivalent if the letter grade system is not used—for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Further requirements for international students are explained in the Graduate Study section. See http://grad.ucla.edu/gasaa/admissions/admisinfo.html.

Applicants must also submit the application to the centralized Schools of Public Health Application Service (SOPHAS) at http://www.sophas.org. For additional admission requirements, see http://ph.ucla.edu/prospective-students/application-checklist-and-submission-instructions.

DEGREE REQUIREMENTS

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

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 is a list of interdisciplin ary centers sponsored by or associated with the UCLA Fielding School of Public Health.

BIXBY CENTER ON POPULATION AND REPRODUCTIVE HEALTH

The Bixby Center on Population and Reproductive Health was established in 2001 at the Fielding School of Public Health as the result of a generous gift from...
The Center for Cancer Prevention and Control Research (http://ph.ucla.edu/research/centers/center-cancer-prevention-and-control-research) is a joint program of the Fielding School of Public Health and the Geffen School of Medicine's Jonsson Comprehensive Cancer Center. Since its inception in 1976, the center has been recognized throughout the Los Angeles community, nationally, and internationally. It conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program (http://www.cancer.ucla.edu/Index.aspx?page=1194) and the Patients and Survivors Program (http://www.cancer.ucla.edu/Index.aspx?page=1195). 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. The program's 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. See http://ph.ucla.edu/research/centers/center-environmental-genomics.

Center for Global and Immigrant Health

The UCLA Center for Global and Immigrant Health was established in 2008 and includes faculty members from all the departments in the 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 members 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 regular seminar series and a Certificate in Global Health available to students in any of UCLA's degree-granting graduate and professional programs. See http://ph.ucla.edu/research/centers/ucla-center-global-and-immigrant-health.

Center for Global Infectious Diseases

Infectious diseases are a significant cause of death worldwide and a cause of concern in the U.S. One of the greatest challenges in public health and medicine is to understand the environmental and genetic factors that contribute to the emergence and re-emergence of infectious diseases and to develop the tools that will enable detecting and monitoring of how diseases spread, so that they can be identified and controlled before they become pandemics.

Driven by its core public health mission, the Center for Global Infectious Diseases is an intellectual collection of individuals who provide a home for sustaining and expanding research evaluating how infectious diseases evolve and how their spread can be forecast and in turn mitigated or prevented. The center will bring together in addition to those involved in infectious disease epidemiology and control from within public health an interdisciplinary group of faculty members from across the campus, including those who study microbiology, virology, immunology, molecular genetics, ecology, and the evolution of infectious diseases. See http://ph.ucla.edu/research/centers/center-global-infectious-diseases.

Center for Health Advancement

The UCLA Center for Health Advancement provides 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 provides training and technical assistance to facilitate implementation of recommended approaches.

The center brings together faculty from multiple departments of the Fielding School of Public Health 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 governmental 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 healthcare can yield greater returns. See http://ph.ucla.edu/research/centers/ucla-center-health-advancement.

Center for Health Policy Research

The UCLA Center for Health Policy Research 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: (1) to conduct research on national, state, and local health policy issues, (2) to provide public service to policymakers and community leaders, and (3) to offer educational opportunities for graduate students and postdoctoral fellows.

Sponsored by the Fielding School of Public Health and the Luskin School of Public Affairs, the center provides 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. See http://www.healthpolicy.ucla.edu/Pages/home.aspx.

**CENTER FOR HEALTHIER CHILDREN, FAMILIES, AND COMMUNITIES**

The Center for Healthier Children, Families, and Communities (CHCFC) was established at UCLA 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, well-being, and the chance to assume productive roles within families and communities.

Through a unique interdisciplinary partnership between UCLA departments, schools, and affiliated institutions, including the Schools of Public Health, Medicine, Nursing, Education, Law, and Public Affairs and the Department of Psychology, as well as providers, community agencies, and affiliated institutions, a critical mass of expertise has been assembled to conduct activities in five major areas: (1) child health and social services, (2) applied research, (3) training of health and social service providers, (4) policy research and analysis, and (5) technical assistance and support to community providers, agencies, and policymakers. See http://www.healthychild.ucla.edu.

**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 the north and south of the state, COEH trains occupational and environmental health professionals and scientists, conducts research, and provides services through consultation, education, and outreach. The centers constitute the first and most supported institutions to develop new occupational and environmental health leadership in the U.S.

The COEH branch at UCLA is housed in the Center for the Health Sciences and involves the Schools of Public Health, Medicine, and Nursing. Specific COEH programs within the Fielding School of Public Health 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. See http://ehs.ph.ucla.edu/coeh.

**CENTER FOR PUBLIC HEALTH AND DISASTERS**

The Center for Public Health and Disasters was established in 1997 to address the 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. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats. See http://www.cphd.ucla.edu.

**GLOBAL MEDIA CENTER FOR SOCIAL IMPACT**

The Fielding School of Public Health has established an innovative new center to increase awareness of important health issues and improve the well-being of people throughout the world by harnessing the storytelling power of television, film, music, and new media.

By collaborating with the entertainment industry and news media, the Global Media Center for Social Impact helps content creators and reporters craft compelling stories that accurately address a full range of public health issues—from the social determinants of health to climate change and early childhood health—with the goal of impacting global health.

The center is ideally poised to engage the entertainment industry in creating storylines by linking filmmakers, writers, and other industry types with the experts and extensive resources of the school. The center also collaborates with media organizations and producers around the globe to promote exceptional storytelling, effective reporting, and interactive new media content that can help move research on population health from evidence to impact. See http://ph.ucla.edu/research/centers/global-media-center-social-impact-0.

**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
implemented 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. See http://healthequity.ucla.edu.

**UCLA/RAND Prevention Research Center**

The UCLA/RAND Prevention Research Center conducts studies and develops programs to improve the health and well-being of adolescents, with special emphasis on projects that involve parents of adolescents. The center is a partnership of the Fielding School of Public Health, Department of Pediatrics, RAND (a nonpartisan, private, nonprofit research institute that conducts research to improve public policy), and local communities.

The center's multidisciplinary faculty and staff members represent the fields of public health, medicine, social and clinical psychology, sociology, economics, political science, anthropology, education, sampling, statistics, and survey design. It is innovative in its approach to community service, partnering with ethically and economically diverse communities in Los Angeles County to identify opportunities for it 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. See http://prc.ph.ucla.edu.

**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. See http://world.ph.ucla.edu.

**MEYER AND RENEE LUSKIN SCHOOL OF PUBLIC AFFAIRS**

Franklin D. Gilliam, Jr., Dean

UCLA
3250 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

(310) 206-7568
fax: (310) 206-5773
http://luskin.ucla.edu

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 policy making, social work, and urban and regional planning. The unique intersection of these disciplines within one school allows for academic cross-collaboration and a graduate education that values perspectives at both the macroorganizational and microorganizational levels. Graduates of the master’s and doctoral degree programs are well prepared to take leadership roles and effect change as practitioners, researchers, and policymakers in the public, private, and nongovernmental sectors. Faculty members are actively engaged in research that addresses pressing national and regional issues, including immigration, drug policy, prison reform, healthcare financing, transportation and the environment, national security, economic development, and an aging U.S. and world population.

**Departments**

The school combines 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 dialogue, engaging people locally, nationally, and internationally.

**Degrees and Programs**

The school offers the following degrees, in addition to undergraduate minors in Gerontology, Public Affairs, and Urban and Regional Studies:

- Public Policy (M.P.P.)
- Social Welfare (M.S.W., Ph.D.)
- Urban and Regional Planning (M.U.R.P.)
- Urban Planning (Ph.D.)

**Concurrent Degree Programs**

The school offers 13 concurrent degree programs:

- Public Policy M.P.P./Law J.D.
- Public Policy M.P.P./Management M.B.A.
- Public Policy M.P.P./Medicine M.D.
- Public Policy M.P.P./Public Health M.P.H.
- Public Policy M.P.P./Social Welfare M.S.W.
- Social Welfare M.S.W./Asian American Studies M.A.
- Social Welfare M.S.W./Law J.D.
- Social Welfare M.S.W./Public Health M.P.H.
- Urban Planning M.U.R.P./Architecture M.Arch. I
- Urban Planning M.U.R.P./Latin American Studies M.A.
- Urban Planning M.U.R.P./Law J.D.
- Urban Planning M.U.R.P./Management M.B.A.
- Urban Planning M.U.R.P./Public Health M.P.H.

Obtain brochures about the school’s programs from the department offices, 3357 Public Affairs Building, or see http://luskin.ucla.edu.

The school also offers a wide array of undergraduate courses in public policy, social welfare, and urban plan-
The mission of the Center for the Study of Inequality is to generate new information and knowledge about the nature, magnitude, and causes of socioeconomic inequality. It is committed to translating academic scholarship into feasible and actionable policies, plans, and programs. The center focuses on these issues and challenges in the Southern California region and expands its findings by including comparative analysis with other regions. See http://luskin.ucla.edu/content/center-study-inequality.

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 1993 to conduct research and provide 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. See http://its.ucla.edu.

Ralph and Goldy Lewis Center for Regional Policy Studies

The Lewis Center for Regional Policy Studies was established in 1988 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 include topics such as welfare reform, immigration, the environment, health insurance, labor and employment, and transportation. See http://lewis.ucla.edu.

Luskin Center for Innovation

The Luskin Center for Innovation serves as a point of intersection and interaction at UCLA, bringing together the brightest minds to concentrate on a specific urgent policy issue in Southern California. Los Angeles is at a critical juncture in many key areas of public policy. UCLA has the intellectual capital to bring together some of the top thinkers in the country, the most enterprising students, and relevant research to support innovative approaches to broad policy problems.

Strategically located within the Luskin School of Public Affairs, the Luskin Center was founded with a generous gift from the Luskins to engage the academic and public decision makers together in actively pursuing solutions to the Los Angeles region's most urgent threats. The center turns the conventional dividing lines between the academic and practical world into a meeting point—reaching across disciplines, sectors, and political points of view to actively pursue long-term solutions that can immediately be put into practice. The current funding cycle addresses environmental sustainability and pollution reduction in Los Angeles. See http://innovation.luskin.ucla.edu.
The School of the Arts and Architecture at UCLA plays a vital role in the cultural and artistic life of the campus and community. Courses and degree programs in six departments (Architecture and Urban Design, Art, Design | Media Arts, Ethnomusicology, Music, and World Arts and Cultures/Dance) provide students with unparalleled opportunities to learn from faculty members who rank among the most innovative artists, designers, musicians, choreographers, architects, and arts scholars of our time.

The school is also home to two undergraduate minors. The Music Industry minor introduces ethnomusicology, music, and music history students to critical perspectives on the formative effects the music industry and music technology have on musical practices around the world. The Visual and Performing Arts Education minor is designed to introduce arts students to the issues and methodologies in the field of arts education.

Combining opportunities for the hands-on study of creative practice with the 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. The 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 has an impressive array of public arts units, including the Center for 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 the traditional and contemporary arts of Africa, the Americas, Asia, and Oceania.

Seven interdisciplinary research centers—the Art | Global Health Center, Art | Sci Center, cityLab, Experiential Technologies Center, Grunwald Center for the Graphic Arts, and NOW Institute—and the renowned Murphy Sculpture Garden are part of the school. All of these programs offer students the opportunity to broaden and deepen their experience of the arts and architecture while at UCLA.

In addition to providing a rich and diverse environment on campus, the school offers students the opportunity 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.

## DEPARTMENTS AND PROGRAMS

The six departments of the school are integral to the rich and varied cultural life of the campus. The Department of Architecture and Urban Design provides students with a unique opportunity to study buildings, cities, and their interdependence in one of the most structurally and ethnically diverse cities in the world. Students in the Department of Art learn to understand the broad panorama of the visual arts emphasizing experimentation. The Department of Design | Media Arts focuses on electronic and digital imagery in visual communication design. Students in the Department of Ethnomusicology study the performance and context of music-making from a global perspective, including a concentration in jazz studies, and the Department of Music offers concentrations in composition, music education, and performance. The Department of World Arts and Cultures/Dance offers innovative curricula focused on the interdisciplinary and intercultural investigation of performance, the arts, and dance, and on establishing connections between cultural theory and artistic practice.

Information regarding academic programs is available from the Office of Enrollment Management, 8260 Broad Art Center, UCLA, Box 951427, Los Angeles, CA 90095-1427, http://www.arts.ucla.edu, (310) 825-8981.

Students interested in obtaining instructional credentials for California elementary and secondary schools should consult the Department of Education, 1009 Moore Hall, (310) 825-8328.

## DEGREES

The school offers the following degrees, in addition to undergraduate interdisciplinary minors in Music Industry and in Visual and Performing Arts Education:

- Architectural Studies (B.A.)
- Architecture (M.Arch. I, M.Arch. II, M.A., Ph.D.)
- Art (B.A., M.F.A.)
- Culture and Performance (M.A., Ph.D.)
- Dance (B.A., M.F.A.)
- Design | Media Arts (B.A., M.F.A.)
- Ethnomusicology (B.A., M.A., C.Phil., Ph.D.)
- Individual Field (B.A.)
- World Arts and Cultures (B.A.)

## UNDERGRADUATE ADMISSION

In addition to the University of California undergraduate application, departments in the School of the Arts and Architecture require auditions, portfolios, or evidence of creativity. Information regarding departmental requirements is available on each department's website; see http://www.arts.ucla.edu (click on Departments). The annual deadline date for applications is November 30 for admission in the following Fall Quarter. After the UC application has been filed, applicants must submit supplemental application material and should consult the individual department website for details.

## UNDERGRADUATE DEGREE REQUIREMENTS

School of the Arts and Architecture students must meet three types of requirements for the Bachelor of Arts degree:

1. University requirements
2. School requirements
3. Department requirements

**UNIVERSITY REQUIREMENTS**

The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

School of the Arts and Architecture students enrolled in English as a Second Language 33A, 33B, 33C, 35 must take each course for a letter grade.

**SCHOOL REQUIREMENTS**

The School of the Arts and Architecture has nine requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, foreign language, upper division nonmajor courses, diversity, and general education.

**UNIT REQUIREMENT**

Students must complete for credit, with a passing grade, no less than 180 units and no more than 216 units, of which at least 64 units must be upper division courses (numbered 100 through 199). Credit for upper division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term and a maximum of 32 units total for a letter grade. Each major may have limitations on the number of upper division tutorials and/or units that may be applied toward degree requirements.

**SCHOLARSHIP REQUIREMENT**

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

**ACADEMIC RESIDENCE REQUIREMENT**

Students are in residence while enrolled and attending classes at UCLA as a major in the School of the Arts and Architecture. Of the last 45 units completed for the bachelor’s degree, 35 must be earned in residence in the School of the Arts and Architecture. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

Courses in UCLA Extension (either class or correspondence) may not be applied toward any part of the residence requirements.

**WRITING REQUIREMENT**

Students must complete the University’s 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 grades of C or better (C– grades are not acceptable).

**Writing I**. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3 with a grade of C or better (C– or a 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 a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section and superior performance on the English Composition 3 Proficiency Examination.

Students whose native language is not English may satisfy the Writing I requirement by completing English as a Second Language 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission to the course is determined by completion of English as a Second Language 35 with a passing grade or proficiency demonstrated on the English as a Second Language Placement Examination (ESLPE).

**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 published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Services Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

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

**QUANTITATIVE REASONING REQUIREMENT**

In the School of the Arts and Architecture, students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a letter grade of C or better or Passed (C– or a 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 higher or an SAT Subject Test in Mathematics score of 550 or higher.

Approved courses include Biostatistics 100A, 100B, Life Sciences 30A, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 12, 13, and former courses 11 and 14.

**FOREIGN LANGUAGE REQUIREMENT**

Students must meet the foreign language requirement by (1) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or
The diversity requirement is predicated on the notion of 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 (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge, (2) introduces students to the important ideas and themes of human cultures, (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society, and (4) 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 complete a yearlong GE Cluster series fulfill the Writing II requirement and complete 40 percent of their general education requirements. Students who do not complete the yearlong GE Cluster series must meet with a counselor 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 cross-listed categories.

**Foundations of the Arts and Humanities.** Three 5-unit courses, one from each subgroup. Courses required to satisfy the major or other courses taken in the major field may not be used to satisfy this GE requirement:

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

The aim of courses in this area is to provide perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide 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
The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The 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**

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The 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 an academic counselor or see http://www.registrar.ucla.edu/ge/.

**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 Student Services Office, School of the Arts and Architecture, 2200 Broad Art Center, UCLA, 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 which have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of the Arts and Architecture GE requirements.

**School of the Arts and Architecture General Education Requirements**

**Foundations of the Arts and Humanities**

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

Total = 15 units minimum

**Foundations of Society and Culture**

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

Total = 15 units minimum

**Foundations of Scientific Inquiry**

- Life Sciences/Physical Sciences. 2 Courses
- Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments.

Total = 8 units minimum

**Total GE. 8 Courses/38 Units Minimum**

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

**Department Requirements**

School of the Arts and Architecture departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) 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 the Curricula and Courses section of this catalog.

**The Major**

A major is composed of no less than 56 units, including at least 36 units of upper division courses. Students must complete their major with a scholarship average of at least a 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 in the School of the Arts and Architecture 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 the Director of Student Services, School of the Arts and Architecture, 2200 Broad Art Center, (310) 206-3564.

**Minors and Double Majors.** Students may petition to be reviewed 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. Contact the Student Services Office for an outline of criteria required.

**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 student 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 B average in the preceding term with all courses passed. Consult the Student Services Office no later than the end of the second week of instruction.

**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. They 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.

**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 University/school requirements. Consult a counselor in the Student Services Office 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 AP Chart at http://www.admission.ucla.edu/prospect/APCreditAA.htm for UCLA course equivalents and credit allowed for GE requirements.

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

**Counseling Services**

The School of the Arts and Architecture offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Student Services Office, School of the Arts and Architecture, 2200 Broad Art Center, (310) 206-3564.

**Honors**

School of the Arts and Architecture undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean's Honors**

To receive Dean's Honors in the School of the Arts and Architecture, students must have at least 12 graded units per term with a grade-point average of 3.8 for less than 16 units of work (3.7 GPA for 16 or more units). The honor is posted on the transcript for the appropriate term. 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.

**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. The levels of honors and the requirements for each level are summa cum laude, an overall average of 3.926; magna cum laude, 3.872; cum laude, 3.799. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. See the Schedule of Classes 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 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. Contact the Student Services Office in 2200 Broad Art Center for details.

GRADUATE STUDY

The advanced degree programs offered in the School of the Arts and Architecture provide graduate students with unique research opportunities when combined with special resources, such as the Young Research Library, the special collections of the Arts and Music Libraries, and the University’s exhibition and 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 in Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

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 at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

SCHOOL OF DENTISTRY

No-Hee Park, Dean

UCLA
53-038 Dentistry
Box 951668
Los Angeles, CA 90095-1668
(310) 206-6063
fax: (310) 794-7734
https://www.dentistry.ucla.edu

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 treatment, leadership, and service. The curriculum prepares students for changes in treatment modalities and healthcare 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.

School of Dentistry 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. The 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 provides a variety of hands-on courses for members of the dental profession and their auxiliaries.

DEGREES AND PROGRAMS

The school offers the following degrees:

Dental Surgery (D.D.S.)
Oral Biology (M.S., Ph.D.)

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. Articulated D.D.S., M.S., Ph.D., and specialty programs are also available. One concurrent degree program (Dentistry D.D.S./Management M.B.A.) is also offered. For information on the M.S. and Ph.D. programs in Oral Biology, for which admission to the School of Dentistry is not required, see Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

PREDENTAL CURRICULUM

For details on the three-year predental curriculum, see http://career.ucla.edu/Students/GradProfSchCounseling/PreHealthCareerServices/Dentistry.aspx.

D.D.S. DEGREE

The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (D.D.S.) 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 provide students with clinical competence and broad experience in all phases of clinical dentistry within the four years.

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 the 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.

For details on the D.D.S. program and a listing of the courses offered, see https://www.dentistry.ucla.edu/
learning/doctor-dental-surgery-program or write to the
Office of Student Affairs, School of Dentistry, A0-111
Dentistry, UCLA, Box 951762, Los Angeles, CA
90095-1762.

RESIDENT PROGRAMS
School of Dentistry opportunities for resident study
include a one-year general practice residency program;
a one-year advanced education in general dentistry
program; a one-year residency in maxillofacial prosth-
dontics; a six-year oral and maxillofacial surgery resi-
dency training program; three-year prosthodontics,
periodontics, and orthodontics programs; two-year
programs in the specialties of endodontics, oral radiol-
ogy, and orofacial pain and dysfunction; and 26-
month programs in dental anesthesiology and pediat-
ric dentistry.

Information on the resident programs can be obtained
by writing directly to Residency Programs, School of
Dentistry, A0-111 Dentistry, UCLA, Box 951762, Los
Angeles, CA 90095-1762.

SCHOOL OF LAW
Rachel F. Moran, Dean
UCLA
1242 Law
Box 951476
Los Angeles, CA 90095-1476
(310) 825-4841
fax: (310) 206-6489
http://www.law.ucla.edu

By any standard, the UCLA School of Law is recog-
nized 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. Members of the faculty frequently
receive awards for teaching excellence and are highly
regarded Universitywide and nationally. They also
are recognized worldwide for their contributions to
scholarship and law reform in a broad spectrum of
fascinating fields that dramatically affect our world—
constitutional law, environmental law and policy,
criminal law, corporate law, employment law, interna-
tional law, and intellectual property, to name a few.
The structure of our democracy, the underpinnings
and regulation of business, families, communities, and
individual liberties, the powerless and homeless, the
many permutations of a race-conscious society—all are
subjects of investigation and study. Faculty members
are committed to being intellectually and profession-
ally demanding of students and humane at the same
time, encouraging and fostering a genuine spirit of
cooperation and community.

Law students select courses from an intellectually rich
curriculum in private or public law and theory.
Courses are taught in both traditional and clinical
settings, with some offered as part of coordinated con-
current degree programs or specializations in Business
Law and Policy, Critical Race Studies, Entertainment,
Media, and Intellectual Property Law, Law and Philos-
ophy, and Public Interest Law and Policy. Situated at a
major gateway to the Pacific Rim, UCLA is a center of
international programs; international and comparative
law has become a dynamic, integral part of the law
school curriculum, with courses addressing the Euro-
pean Union, modern Japan and China, Islam, interna-
tional trade and business transactions, and a host of
other related courses. Part of an outstanding research
University, possessed of rich cultural resources, and
located in a beautiful garden setting allowing year-
round outdoor study and reflection, UCLA's extensive
educational programs afford law students myriad inter-
disciplinary opportunities both in the classroom and
through independent research.

The technologically advanced, spacious, and comfort-
able Hugh and Hazel Darling Law Library—replete
with natural lighting and views—houses an extensive
collection of legal materials. The school's nationally
recognized clinical program offers sophisticated
courses that help students develop applied lawyering
skills, focus on solving client problems, and see in their
education at UCLA more of what ultimately will face
them as lawyers and policymakers. An entire wing of
the Law Building is designed especially for clinical
teaching and student practice and facilitates work and
study in the ever-expanding clinical curriculum, which
includes courses in interviewing, counseling, negotia-
tion, business transactions, criminal and civil trial
advocacy, community-based lawyering, environmental
law, and international justice. The first-year lawyering
skills course, taught by experienced lawyers who are
full-time faculty members, is truly outstanding and
features interviewing and counseling of clients and
drafting of legal memoranda, contracts, and "advice
letters," thereby developing legal research capabilities
and writing prowess.

Successful placement of UCLA law graduates reflects
the school's excellent national ranking. Approximately
400 interviewers from across the country visit the cam-
pus annually, including law firms, corporations, gov-
ernment agencies, and public interest organizations.
UCLA graduates (more than 14,000) work in coveted
positions locally and around the world, not only
serving in a wide variety of public and private law
practices, but as judges, business executives, writers,
journalists, law professors, and academic administrators.

DEGREES
The school offers the following degrees:
Juris Doctor (J.D.)
Master of Laws (LL.M.)
Doctor of Juridical Science (S.J.D.)

Concurrent Degree Programs
The school offers nine concurrent degree programs:
Law J.D./Afro-American Studies M.A.
Law J.D./American Indian Studies M.A.
Law J.D./Education M.Ed., M.A., Ed.D., or Ph.D.
Law J.D./Management M.B.A.
Law J.D./Philosophy Ph.D.
Law J.D./Public Health M.P.H.
Law J.D./Public Policy M.P.P.
Law J.D./Social Welfare M.S.W.
Law J.D./Urban Planning M.U.R.P.

In addition to the concurrent programs above, stu-
dents may design a tailored program from other disci-
plines 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 the academic programs offered by the School of Law, course titles and descriptions, fees, and the semester-system calendar by which it operates are available at http://www.law.ucla.edu/academic-programs-and-courses/Pages/default.aspx.

**JURIS DOCTOR DEGREE**

**Admission**

Students beginning their professional work are admitted only for Fall Semester. They must have received a bachelor’s degree from a university or college of approved standing before beginning work in the school and are required to take the Law School Admission Test (LSAT).

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 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 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 of applicants representing underrepresented communities), significant hardships overcome, evidence of potential for leadership, language ability, unusual life experiences, and 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.

The 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.

**Residence and Unit Requirements**

Candidates for the degree of Juris Doctor must pursue resident law school study for six semesters and successfully complete 87 units, at least 65 of which must be earned in regularly scheduled law class sessions. The residence requirements may be satisfied as follows: (1) six semesters in regular session in this school or (2) 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 is required to 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. The second- and third-year curriculum is elective, except for a required course in professional responsibility and a substantial analytical writing requirement. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other disciplines within the University. Graduate students may enroll in upper division law courses on a limited basis. Law courses are not open to non-UCLA students. Auditing of 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, may be obtained from the Office of the Assistant Dean for Students. Standards for satisfactory performance and for graduation are prescribed by the faculty and are published separately. They may also be obtained from the above office.

**Curriculum**

The school offers courses of instruction within the school and supervised educational experiences outside it in an effort to enable its students to think intelligently 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 are exposed to an intensive study of legal reasoning in a series of fields that have historically dominated legal thought. Additionally, the first-year required course in lawyering skills provides students the opportunity to explore the relationship between legal analysis and lawyering tasks such as legal writing, oral advocacy, research, and client interviewing and counseling.

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 curriculum are elective, with the exception of the legal profession and substantial analytical writing requirements that are requisites for graduation.

**MASTER OF LAWS DEGREE**

The School of Law offers a Master of Laws (LL.M.) 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. For further information, see http://www.law.ucla.edu/llm/.
DOCTOR OF JURIDICAL SCIENCE DEGREE

The Doctor of Juridical Science (S.J.D.) 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 J.D. degree or foreign equivalent and an LL.M. degree (or be enrolled in a program leading to an LL.M. degree). For further information, see http://www.law.ucla.edu/sjd/.

ACADEMIC SPECIALIZATIONS FOR J.D. DEGREE

BUSINESS LAW AND POLICY SPECIALIZATION

The Business Law and Policy specialization is designed to allow students to focus in one of four tracks: business law, bankruptcy, mergers and acquisitions, securities regulation, and taxation. Approximately 70 courses and seminars are offered in the specialization. The five tracks are designed to provide additional guidance to students in course selection, as well as highlight the specialization’s curricular strengths. 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 SPECIALIZATION

The UCLA School of Law is the first 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. The course of study emphasizes mastery of five areas: (1) history (centered on the Constitution but focused as well on a variety of other legal documents and experiences), (2) theory (critical race theory, jurisprudence, and theoretical advances outside the legal academy), (3) comparative subordination (understanding of the multiracial nature of American race relations, as well as how racial inequality is affected by discrimination based on gender, sexual orientation, and disability), (4) doctrine (case and statutory law and its interpretation), and (5) practice (including legal practice, community service, and lawyers’ use of social science inquiries and methods).

ENTERTAINMENT, MEDIA, AND INTELLECTUAL PROPERTY LAW SPECIALIZATION

Los Angeles is the center of the entertainment industry, and recognizing the unique ability to offer a specific program in that arena, the school launched the Entertainment, Media, and Intellectual Property Law specialization in 2005. 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, 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.

LAW AND PHILOSOPHY SPECIALIZATION

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 students, especially those 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.

PUBLIC INTEREST LAW AND POLICY SPECIALIZATION

Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society and defining public interest broadly to include all interests underrepresented by the private market, the Public Interest Law and Policy specialization strives to provide its students with 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 and often pursue additional specializations and joint degrees. Graduates have received prestigious public interest law fellowships, and they work in a variety of settings, with focus on an array of social justice issues ranging from immigration, labor, and international human rights to healthcare, welfare and poverty, and civil rights. Faculty members are leaders in their respective fields and have distinguished themselves by the quality of their scholarship and teaching. They represent a broad cross-section of interests on social justice issues and bring to the classroom a depth of knowledge from a wide range of experiences and research perspectives.

ACADEMIC SPECIALIZATIONS FOR LL.M. DEGREE

BUSINESS LAW SPECIALIZATION

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 provide guidance to students in course selection, as well as highlight the specialization’s curricular strengths. The advanced 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. 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.

**ENTERTAINMENT, MEDIA, AND INTELLECTUAL PROPERTY LAW SPECIALIZATION**

Los Angeles is the center of the entertainment industry, and recognizing the unique ability to offer a top-notch program in that arena, the school launched the LL.M. Entertainment, Media, and Intellectual Property Law specialization in 2005. 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.

**INTERNATIONAL AND COMPARATIVE LAW SPECIALIZATION**

The school’s 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. Students may either select a range of international and comparative courses or pursue a specialization route that allows them to compare U.S. law with the laws of their home country.

**LAW AND SEXUALITY SPECIALIZATION**

The Law and Sexuality specialization builds on the role of UCLA Law 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, to be mentored by them, and to 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 LL.M. students to secure internships in the Los Angeles area and to establish connections between LL.M. 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, including a course on law and sexuality and a Sexual Orientation Workshop seminar taught by Williams Institute teaching fellows.

**PUBLIC INTEREST LAW AND POLICY SPECIALIZATION**

Exploring the proper role of the law in creating and sustaining a just society and defining public interest broadly to include all interests underrepresented by the private market, the Public Interest Law and Policy specialization strives to provide its students with 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 work in a variety of settings, with focus on an array of social justice issues ranging from immigration, labor, and international human rights to healthcare, welfare and poverty, and equality rights.

**PROGRAMS AND CENTERS**

**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 the law school’s 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.

**CLINICAL PROGRAM**

With more than 26 diverse clinical offerings, the Clinical Program is widely regarded as one of the strongest in the nation. Housed in a special clinical wing, it provides extensive and rigorous practical training for student-lawyers interested in litigation, transactional, and public interest work. The program is built on two principles: that most legal skills are transferable across practice areas and that such skills are best learned through repetition in increasingly more complex settings. The goal is to provide students with conceptual frameworks that allow them to make reasoned strategic judgments across all substantive areas of law. Students can choose among a wide variety of live-client clinics (in which they represent actual clients) and sophisticated simulation-based courses. In the more than 20 clinical settings, students learn how to interview and counsel clients, draft legal documents, conduct depositions, examine and cross-examine witnesses, resolve disputes, and argue before a judge or jury. Students interested in transactional practice can learn how to
finance a start-up company, sell a private company, advise a community-based organization engaged in economic development projects, or manage myriad environmental issues that arise when selling a business.

**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. It is the premier institutional setting for the study of the intersection between race and the law. Established in 2000, the program has quickly emerged as 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. Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society and defining public interest broadly to include all interests underrepresented by the private market, 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 provides 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 nation’s first law school institute focused exclusively on climate change. It was established in 2008 to tackle the most pressing climate issues and works hand in hand with the Frank G. Wells Environmental Law Clinic and the Evan Frankel Environmental Law and Policy Program. The institute engages experts in other UCLA schools, as well as those outside UCLA who are working on matters related to climate change.

**EMPIRICAL RESEARCH GROUP**
The UCLA School of Law is one of the only law schools in the country to provide its faculty members with the support of trained statisticians to further empirical research. The Empirical Research Group (ERGs) 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. ERG has received or facilitated more than $2.5 million in foundation support for specific projects, including a grant from the Pew Charitable Trusts to study state campaign finance disclosure.

**ENTERTAINMENT, MEDIA, AND INTELLECTUAL PROPERTY LAW PROGRAM**
The Entertainment, Media, and Intellectual Property Law Program supports and expands the curricular offerings of the Entertainment, Media, and Intellectual Property Law specialization. For students interested in learning more about entertainment law, the program helps them 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, as well as the student organization, the Entertainment Law Association.

**ENVIRONMENTAL LAW CENTER**
The Environmental Law Center houses the school’s varied and interdisciplinary work related to environmental law and policy. It includes the Frank G. Wells Environmental Law Clinic, which offers excellent opportunities for students to obtain hands-on experience in environmental law, the Emmett Institute on Climate Change and the Environment, and the Evan Frankel Environmental Law and Policy Program, as well as the work of UCLA’s world-class environmental law faculty. The center provides opportunities for members of the UCLA community to have a voice in solving the important environmental issues of the twenty-first century and to educate the public about these issues.

**EVAN FRANKEL ENVIRONMENTAL LAW AND POLICY PROGRAM**
The Evan Frankel Environmental Law and Policy Program fosters informed analysis of timely and important issues involving governance and regulation in environmental policy. It supports ongoing work on public pol-
The Health and Human Rights Law Project seeks to improve global health by using a framework grounded in international human rights law. Through multidisciplinary research, training, and mentorship, the project examines the relationship between health and human rights and fosters the next generation of leaders working in this area. With an emphasis on issues pertaining to sexuality, gender, and HIV/AIDS, the project focuses on health issues around which rights-claiming has particular salience.

INTERNATIONAL AND COMPARATIVE LAW PROGRAM

The International and Comparative Law Program is one of the best in the nation. Permanent faculty members who have built their reputations in the field offer numerous international and comparative law courses, such as international business transactions, national security law, human rights, international environmental law, international criminal law, European Union law, and Islamic law. The study of international and comparative law at UCLA 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.

INTERNATIONAL HUMAN RIGHTS LAW PROGRAM

International human rights touch everything from politics to commerce, security to public health, law enforcement to the environment. In 2008 the UCLA Law School established the first major International Human Rights Law Program in Southern California to provide students with opportunities to participate in important human rights activities across the range of clinical work and scholarship. At the core are a clinical program in which students can conduct on-the-ground investigations of international human rights abuses, a research program to frame and address important questions about human rights law, and a public program with regular seminars, workshops, lectures, and films. The International Justice Clinic gives students unique opportunities to participate in the process of holding perpetrators of massive human rights abuses to account.

LAW AND PHILOSOPHY PROGRAM

The School of Law and the Department of Philosophy 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 the national legal and policy debate over the critical issues affecting the regulation and governance of business. The institute seeks to fulfill this mission by promoting innovative research at the intersection of law and business by a highly respected and widely recognized business law faculty, by offering a unique blend of policy and practice-oriented courses designed to prepare law students to be leaders in the new economy, and by hosting timely conferences and scholarly events on matters that advance the public discussion.

NATIVE NATIONS LAW AND POLICY CENTER

The Native Nations Law and Policy Center supports Native Nations to enhance their governmental institutions and laws, strengthen their cultural resource protections, and address critical public policy issues by bringing together the University’s 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
The Resnick Program 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.

Richard S. 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 Richard S. 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 businesspeople alike make critical policy and business decisions. The center truly bridges the divide between research and practice and offers students a full range of coursework that provides a holistic view of real estate issues.

Sanela Diana Jenkins Human Rights Project

The Sanela Diana Jenkins Human Rights Project engages in a range of activities, continuously identifying and pursuing the most promising opportunities for addressing human rights issues around the globe, while at the same time advancing understanding about human rights through interdisciplinary studies. The project utilizes the best scholarship and analyses of human rights and international justice from the fields of law, politics, sociology, history, and economics to set its agenda and select human rights opportunities to pursue. And it uses its practical engagement in human rights advocacy to improve scholarly understanding. Typical activities have included the development and utilization of Web-based technologies to advance human rights; assistance to and support of prosecutors and judges in international criminal tribunals; and conferences, roundtable discussions, and speakers series focused on developing a breakthrough understanding of particular human rights challenges. The project also supports human rights and international justice by training the next generation of lawyers in the field.

UCLA-RAND Center for Law and Public Policy

The UCLA-RAND Center for Law and Public Policy is a unique partnership of the UCLA School of Law and RAND Corporation. Its mission is to produce innovative legal scholarship that is grounded in multidisciplinary empirical analysis to guide legal and public policymakers in the twenty-first century. It was created to support collaborative research and to evolve with the doctrinal, institutional, and professional changes in the law. The main activities of the center include research, conferences, and the Empirical Legal Scholars Program.

Williams Institute on Sexual Orientation Law and Public Policy

The Charles R. Williams Institute on Sexual Orientation 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 provides a national center for the interdisciplinary exploration of these issues by scholars, judges, practitioners, advocates, and students.
The 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 UCLA Medical Center, its affiliates, 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, clinical specialists, or administrators in a variety of settings and specialized areas of healthcare. The Ph.D. 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 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 healthcare and the diversity of the patient population. Graduates of the program are sought by healthcare 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 provides a rich environment for preparation in the health sciences.

**PHILOSOPHY OF THE SCHOOL**

The UCLA 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 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 healthcare that encompasses the responsibility and accountability for continuity of care across the health/illness spectrum.

Nursing research is both applied and basic and has as its core actual or potential human responses to illness and as its goal the development of nursing science.
The University of California has two requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, and general education.

UNIT REQUIREMENT

Students must complete with a passing grade a minimum of 180 units. At least 83 of the 180 units must be upper division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with advanced placement or international baccalaureate credit may exceed the unit maximum by the amount of that credit.

SCHOLARSHIP REQUIREMENT

A 2.0 (C) 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) average is also required in all upper division courses in the major taken at the University, as well as in all courses applied toward the general education and University requirements. Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable). Elective courses may be taken on a Passed/Not Passed basis with prior approval, according to the policy listed in the Academic Policies section of this catalog.

ACADEMIC RESIDENCE REQUIREMENT

Students are in residence while enrolled and attending classes at UCLA as a major in the School of Nursing and must complete 77 of the last 97 nursing course units in residence.

WRITING REQUIREMENT

Students must complete the University’s 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 grades of C or better (C– grades are not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3 or an equivalent course with a grade of C or better (C– or a 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 a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section and superior performance on the English Composition 3 Proficiency Examination. Students whose native language is not English may satisfy the Writing I requirement by completing English as a Second Language 36 or an equivalent course with a grade of C or better (C– or a Passed grade is not acceptable). Admission into the course is determined by completion of English as a Second Language 35 with a passing grade or proficiency demonstrated on
the English as a Second Language Placement Examination (ESLPE). Qualifying examination scores and courses are determined by the school Faculty Executive Committee. Approved courses are published in the UCLA Schedule of Classes.

**Writing II.** The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of courses published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Affairs Office. The course (Nursing 152W) must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

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 Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a grade of C or better (C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

### QUANTITATIVE REASONING REQUIREMENT

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a grade of C or better (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 grade of C or better (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 30A, Mathematics 2 (or any higher numbered course except 19, 71SL, 72SL, 89, 89HC, 98XA, 98XB, 99, 103A, 103B, 103C, 105A, 105B, 105C, 189, 189HC, 195, 197, 199), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Statistics 10, 12, 13, and former courses 11 and 14.

### GENERAL EDUCATION REQUIREMENTS

General education (GE) is more than a checklist of required courses. It is a program of study that (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge, (2) introduces students to the important ideas and themes of human cultures, (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society, and (4) develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

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

#### FOUNDATIONS OF KNOWLEDGE

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

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

Students must meet with the prelicensure student support coordinator 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 cross-listed categories.

#### Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

<table>
<thead>
<tr>
<th>Literary and Cultural Analysis</th>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
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<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
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</table>

The aim of courses in this area is to provide perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide the

### School of Nursing Structure of a Degree

<table>
<thead>
<tr>
<th>University Requirements</th>
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</thead>
<tbody>
<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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</tbody>
</table>

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

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

Courses that do not satisfy specific University, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
The School of Nursing sets two types of requirements prior to transfer. 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**

The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The 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 Studies 10 is recommended for this foundational area.

**Foundations of Scientific Inquiry.** Four courses, two from each subgroup:

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

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The 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 an academic counselor or see http://www.registrar.ucla.edu/ge/.

### 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 the Curricula and Courses section in this catalog.

### MAJOR REQUIREMENTS

The School of Nursing sets two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major and (2) the Major. See the Curricula and Courses section of this catalog 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 without the formal permission of the assistant dean of Student Affairs renders students liable to enforced withdrawal from the University or other appropriate disciplinary action.

Students are expected to follow the course sequence specified for their program. After the first term, they may petition to carry a program of study exceeding 20 units provided they have an overall grade-point average of 3.0 (B or better) and have attained at least a B 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. They are subject to dismissal if they fail to

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**School of Nursing**

**General Education Requirements**

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td>Literary and Cultural Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Philosophical and Linguistic Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Visual and Performance Arts Analysis and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Practice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td>Historical Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Social Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Third course from either subgroup</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total = 15 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td>Life Sciences</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Physical Sciences</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total = 18 units minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Total GE</strong></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(48 Units Minimum)</td>
<td></td>
</tr>
</tbody>
</table>

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

Preparation for the major courses may overlap with GE foundation courses.
pass at least 32 units in three consecutive regular terms in residence.

CONCURRENT ENROLLMENT
Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

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

Advanced Placement Examinations. Credit earned through the College Board Advanced Placement (AP) Examinations may not be applied toward the general education requirements. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., History 1C). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the AP Chart at http://www.admission.ucla.edu/prospect/APCreditNS.htm for UCLA course equivalents and credit allowed for GE requirements.

COUNSELING SERVICES
The School of Nursing gives direction and provides information to interested potential applicants to the B.S. program through admissions information sessions. The schedule for these sessions, program information, and applications are available at http://nursing.ucla.edu. Applicants may write to the UCLA School of Nursing, Student Affairs Office, 2-137 Factor Building, Box 951702, Los Angeles, CA 90095-1702, call (310) 825-7181, or contact the Student Affairs Office by e-mail at sonsaff@sonnet.ucla.edu.

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, to identify academic and personal needs and match them with available school and University resources, to confirm University and course requirements, and to maximize the students’ abilities to reach educational and professional goals. Due to the heavy course load that the school's program expects, students are advised against working full time.

HONORS
School of Nursing undergraduate students who achieve scholastic distinction may qualify for the following honors:

DEAN’S HONORS
To receive Dean’s Honors in the School of Nursing, undergraduate students must have at least 12 graded units per term with a grade-point average of 3.75. The honor is posted on the transcript for the appropriate term. 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.

LATIN HONORS
Latin Honors are awarded at graduation to undergraduate students with superior grade-point averages. The levels of honors and the requirements for each level are: summa cum laude, an overall average of 3.897; magna cum laude, 3.821; cum laude, 3.698. To be eligible students must have completed at least 98 University of California units for a letter grade. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. See the Schedule of Classes for the most current calculations of Latin honors.

GRADUATE STUDY
The Master of Science in Nursing (M.S.N.) 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 nurse (APN)/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, clinical nurse specialist, or nurse administrator. Advanced practice populations include adult/gerontology acute care (with oncology specialization option), adult/gerontology primary care (with coursework specific to occupational and environmental health and gerontology available), family, and pediatrics.

The Ph.D. program, which includes an en route M.S. 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.

ADMISSION
Detailed information about the graduate academic programs offered by the School of Nursing is included in the Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

DEGREE REQUIREMENTS
For complete degree requirements, see Program Requirements for UCLA Graduate Degrees at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

SCHOOL OF THEATER, FILM, AND TELEVISION
Teri E. Schwartz, Dean
UCLA
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Box 951622
Los Angeles, CA 90095-1622
(310) 825-5761
fax: (310) 825-3383
e-mail: info@tft.ucla.edu
http://www.tft.ucla.edu
The School of Theater, Film, and Television consists of the Department of Theater and the Department of Film, Television, and Digital Media, 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, multidiscipline 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 our perception of a complex, diverse, and ever-changing world. We believe—as artists and scholars—that we have 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 Art of Performance at UCLA, Geffen Playhouse, and UCLA Film and Television Archive, the school provides 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 Department of Theater and the Department of Film, Television, and Digital Media are essential components of the rich intellectual, cultural, and professional life of UCLA. Depending on the degree involved, the school’s 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 education within the context of either theater or film and television.

The Master of Fine Arts degree programs prepare talented and highly motivated students for careers in the worlds of theater, film, television, and digital production. The M.A. and Ph.D. programs engage students in the critical study and research of these media, including their history, aesthetics, and theory, and 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 Department of Theater, approximately 300 undergraduate and 100 graduate students interact with over 40 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 C.Phil. and Ph.D. degrees for the advanced scholarly study of theater and performance. Resources include the four theaters of the Macgowan Hall complex, with the latest technologies needed for the creation, control, and integration of scenery, lighting, and sound. Specializations in the Master of Fine Arts program include acting, design, directing, and playwriting.

The Department of Film, Television, and Digital Media includes both production and critical studies programs, with approximately 330 graduate and 75 undergraduate students. The 50 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 the producers program. The cinema and media studies program offers M.A. and Ph.D. degrees for the advanced scholarly study of film and television. The department’s resources in Melnitz Hall include three sound stages, three television studios, extensive editing, scoring, and viewing facilities, a complete animation laboratory for both traditional and computer-generated animation, and a laboratory and research facility for digital media.

The M.A. and Ph.D. programs are supported by the collections of the University’s libraries 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. M.A. and Ph.D. faculty members and students also participate in various campus organized research units.

Students interested in obtaining instructional credentials for California elementary and secondary schools should consult the Department of Education, 1009 Moore Hall, (310) 825-8328.

DEGREES

The school offers the following degrees, in addition to undergraduate minors in Film, Television, and Digital Media and in Theater:

Film and Television (B.A., M.A., M.F.A., C.Phil., Ph.D.)

Individual Field (B.A.)

Moving Image Archive Studies (M.A.)

Theater (B.A., M.A., M.F.A.)

Theater and Performance Studies (C.Phil., Ph.D.)

UNDERGRADUATE ADMISSION

In addition to the University of California undergraduate application, departments in the School of Theater, Film, and Television require applicants to submit additional supporting materials. Information on departmental requirements is available at http://www.tft.ucla.edu. The annual deadline date for applications is November 30 for admission in the following Fall Quarter.
UNDERGRADUATE DEGREE REQUIREMENTS

School of Theater, Film, and Television students must meet three types of requirements for the Bachelor of Arts degree:

1. University requirements
2. School requirements
3. Department requirements

UNIVERSITY REQUIREMENTS

The University of California has two requirements that undergraduate students must satisfy in order to graduate: (1) Entry-Level Writing or English as a Second Language and (2) American History and Institutions. See Degree Requirements in the Undergraduate Study section for details.

School of Theater, Film, and Television students enrolled in English as a Second Language 33A, 33B, 33C must take each course for a letter grade.

SCHOOL REQUIREMENTS

The School of Theater, Film, and Television has seven requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, foreign language, literature, and general education.

UNIT REQUIREMENT

Students must complete for credit, with a passing grade, no less than 180 units and no more than 216 units, of which at least 64 units must be upper division courses (numbered 100 through 199). No more than 8 units of freshman seminars and/or 8 units of 300-level courses may be applied toward the degree. 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.

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) average is also required in all upper division courses in the major taken at the University, as well as in all courses applied toward the general education and University requirements.

ACADEMIC RESIDENCE REQUIREMENT

Students are in residence while enrolled and attending classes at UCLA as a 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 in the School of Theater, Film, and Television. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

Courses in UCLA Extension (either class or correspondence) may not be applied toward any part of the residence requirements.

WRITING REQUIREMENT

Students must complete the University's 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 grades of C or better (C– grades are not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3 with a grade of C or better (C– or a 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 a combination of a score of 720 or higher on the SAT Reasoning Test Writing Section and superior performance on the English Composition 3 Proficiency Examination.

Students whose native language is not English may satisfy the Writing I requirement by completing English as a Second Language 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission into the course is determined by completion of English as a Second Language 35 with a passing grade or proficiency demonstrated on the English as a Second Language Placement Examination (ESLPE).

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 published in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and available in the Student Services Office. The course must be completed with a grade of C or better (C– or a Passed grade is not acceptable).

A Writing II course used to meet this requirement may not be applied toward a foundational area under general education or toward the literature requirement.

School of Theater, Film, and Television Structure of a Degree

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. Foreign Language
6. Literature
7. 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 University, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
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.

**FOREIGN LANGUAGE REQUIREMENT**

Students may meet the foreign language requirement by (1) 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, (2) presenting a UCLA foreign language proficiency examination score indicating competency through level three, or (3) completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.

For transfer students from California community colleges, completion of the Intersegmental General Education Transfer Curriculum (IGETC) does not fulfill the school foreign language requirement. Students need to complete level three or above of a foreign language course at the community college with a grade of Passed or C or better to complete the 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.

**LITERATURE REQUIREMENT**

Three courses (12 units minimum) in literature are required, at least one of which must be upper division. A school-approved literature course taken in the original language can fulfill this requirement. A list of courses that satisfy the requirement is available in the Student Services Office. A course taken to meet the Writing II requirement may not also be applied toward the literature requirement.

**GENERAL EDUCATION REQUIREMENTS**

General education (GE) is more than a checklist of required courses. It is a program of study that (1) reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge, (2) introduces students to the important ideas and themes of human cultures, (3) fosters appreciation for the many perspectives and the diverse voices that may be heard in a democratic society, and (4) develops the intellectual skills necessary to comprehend, to the ways in which humans organize, structure, and govern their diverse societies and cultures over time. The 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 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 not also be applied toward a GE requirement.

Courses listed in more than one category can fulfill GE requirements in only one of the cross-listed categories. GE courses may not be applied toward major 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

The aim of courses in this area is to provide perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide 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

The aim of courses in this area is to introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. The 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

The aim of courses in this area is to ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. The 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 extensive 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 an academic counselor or see [http://www.registrar.ucla.edu/ge/](http://www.registrar.ucla.edu/ge/).
Transfer students from California community colleges may also be admitted to the School of Theater, Film, and Television, but they must complete the IGETC (Intersegmental General Education Transfer Curriculum) and the departments' specific major requirements before enrolling at UCLA. Otherwise, they must fulfill UCLA lower division GE requirements. Students should be sent to Director of Student Services, School of Theater, Film, and Television, 103 East Melnitz Building, UCLA, 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 which have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

**DEPARTMENT REQUIREMENTS**

School of Theater, Film, and Television departments generally set two types of requirements that must be satisfied for the award of the degree: (1) Preparation for the Major (lower division courses) and (2) 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 the Curricula and Courses section of this catalog.

**THE MAJOR**

A major is composed of no less than 56 units, including at least 36 units of upper division courses.

Students must complete their major with a scholarship 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 adjustment should be submitted to the dean of the school when necessary.

Any department offering a major in the School of Theater, Film, and Television 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 student 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 carry 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 B average in the preceding term with all courses passed. The petitions must be filed and approved by the Student Services Office no later than the end of the third week of instruction.

**MINIMUM PROGRESS**

Students are expected to complete satisfactorily at least 36 units during any three consecutive terms 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 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. Due to curriculum changes, students in the Theater major are no longer allowed to change their major to Film and Television at the end of their sophomore year.

**Concurrent Enrollment**

Enrollment at another 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 the school and general education requirements. If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the AP Chart at http://www.admission.ucla.edu/prospect/APCreditTF.htm for UCLA course equivalents and credit allowed for GE requirements.

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 the specific qualifications. Courses numbered in the 400 and 500 series are not open for credit to undergraduate students.

UCLA Extension. Extension courses with the prefix X on those numbered in the 1 through 199, 200, 300, 400, or 800 series may not be applied toward the degree.

**Counseling Services**

The School of Theater, Film, and Television offers advising, program planning in the major and general education requirements, and individual meetings with departmental counselors, including a yearly degree check. Prior to registration and enrollment in classes, each new student is assigned to a counselor in the major department. For further counseling information, contact the Student Services Office, School of Theater, Film, and Television, 103 East Melnitz Building, (310) 206-8441.

**Honors**

School of Theater, Film, and Television 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**

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. The levels of honors and the requirements for each level are summa cum laude, an overall average of 3.90; magna cum laude, 3.87; cum laude, 3.745. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. See the Schedule of Classes for the most current calculations of Latin honors.

**Graduate Study**

The advanced degree programs offered in the School of Theater, Film, and Television provide graduate students with unique research opportunities when combined with special resources, such as the Young Research Library, UCLA Film and Television Archive, Geffen Playhouse, special collections of the Arts Library, and the University’s exhibition and performance halls.

A program in teaching is offered by the Graduate School of Education and Information Studies in each of the areas. Fellowships, grants, and assistantships are available through the dean of the Graduate Division. Donor 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 at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.

**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 at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.
Curricula and Courses

COURSE LISTINGS

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 and undergraduate programs are posted online on the catalog updates pages at http://www.registrar.ucla.edu/catalog/updates/. For the most current course offerings by term, see the Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

For a complete outline of graduate degree requirements, see Program Requirements for UCLA Graduate Degrees available on the Graduate Division website at http://grad.ucla.edu/gasaa/library/pgmrqintro.htm.

Undergraduate Course Numbering

Undergraduate courses are classified as lower division and upper division. Lower division courses (numbered 1-99) are often surveys offering preliminary introductions to the subject field. They are designed primarily for freshmen and sophomores, though upper division students may enroll for unit and grade credit. Lower division courses may not be applied toward graduate degrees.

Upper division courses (numbered 100-199) are open to all students who have met the requirements indicated in departmental requirements or the course description. Preparation generally includes at least one lower division course in the subject or two years of college work. With approval of the major department, graduate students may take 100-series courses toward satisfaction of master’s degree requirements.

Undergraduate Seminars and Tutorials

Fiat Lux freshman seminars (numbered 19) are taught by faculty in areas of their expertise. They introduce freshmen to topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers. The seminar series takes its name from the motto of the University of California: Fiat Lux—Let There be Light!

Sophomore seminars (numbered 88) are departmentally sponsored courses designed to provide sophomores the opportunity to participate in small seminars to enhance writing, verbal, and analytical skills.

Honors seminars and tutorials (numbered 89/189 and 89HC/189HC) are primarily designed for students in the College Honors Program. They are adjunct to lecture courses and explore lecture topics in more depth through supplemental readings, papers, or other activities.

Student Research Program tutorials (numbered 99) offer students entry-level research experiences. Students serve as apprentices working with an individual faculty member or in a research group. Students are graded P/NP based on the number of hours they participate in research.

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 (available online through MyUCLA) and have it approved by both the instructor and department chair.

Note: Courses numbered 19, 89, 89HC, 99, 189, and 189HC are not listed in the print catalog. For current course descriptions, see http://www.registrar.ucla.edu/schedule/catsel.aspx.

Graduate Course Numbering

Graduate courses numbered 200-299 are generally open only to graduate students who have completed basic undergraduate courses in the subject. Courses and seminars in the 200 series can fulfill the minimum graduate course requirement for any advanced degree.

With departmental and instructor consent, and subject to requirements in the appropriate College or school, undergraduate students may enroll in 200-series courses for unit credit toward the bachelor's degree. If students take a graduate course as an undergraduate, they may not apply that same course later toward a higher degree.

Graduate courses numbered 300-399 are highly specialized teacher-training courses that are not applicable toward University 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 M.A., M.S., and Ph.D. These courses may not be used to satisfy minimum graduate course requirements for the M.A. or M.S. degree but may apply as electives.

Individual study and research courses (numbered 500-599) are reserved for advanced study and are not open to undergraduate students. Courses are numbered as follows: 595/596, directed individual study or research; 597, preparation for master's comprehensive or doctoral qualifying examination; 598, master’s thesis research and preparation; and 599, doctoral dissertation research and preparation. Courses numbered 501 are not individual study and research but are cooperative programs held in conjunction with USC. See individual departmental listings for specific limitations on 500-series courses.

Note: These definitions do not apply to 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 listed in the catalog. Their descriptions can be found in the online Schedule of Classes.

Concurrent and Multiple Listings

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. They need not have identical course numbers, but all other aspects of the course must be the same, such as title, units, requisites, format, and level. For example, Language in Culture is offered by the Department of Anthropology (Anthropology M140) and the Department of Linguistics (Linguistics M146). The course is listed under both departments.

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 course listings, yield credit toward the bachelor's degree. Graduate students may petition to apply up to two XLC courses toward the master’s degree. For more details, see Concurrent Enrollment in the Academic Policies section of this catalog.
African American Studies

Scope and Objectives

The Department of African American Studies offers a Bachelor of Arts degree, an undergraduate African American Studies minor, a Master of Arts degree, and a concurrent degree program (African American Studies M.A./Law J.D.). A major or minor in this field provides a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from African American studies courses in an era when employers and academic institutions are actively seeking those with multicultural and interdisciplinary skills and backgrounds.

The fundamental goal of the African American Studies curriculum is to provide students with a comprehensive and multidisciplinary introduction to the crucial sociocultural and social justice issues facing African Americans and their counterparts in other areas of the African diaspora today. The curriculum is designed to meet this goal in two primary ways. First, it provides an interdisciplinary exposure to particular features of the African American experience. Core courses offer an in-depth understanding of historical, anthropological, sociological, psychological, economic, and political aspects of African America. The curriculum also provides opportunities to study the literary, musical, and artistic heritage of peoples of African descent. Second, students analyze key issues through additional courses that bring to bear concepts, theories, and methods of traditional academic disciplines in areas such as cultural analysis and production, social justice, and public policy. Students may also do individualized study with a professor and/or an internship for course credit.

Undergraduate Study

African American Studies B.A.

Preparation for the Major

Required: Two courses from African American Studies M5, 6, M10A.

Transfer Students

Transfer applicants to the African American Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one African American Studies or civilizations of African course or equivalent.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Twelve upper division courses as follows: (1) two history and/or literature courses selected from African American Studies M104A through M104D, M105D, M158A through M158E, M179A, (2) two upper division breadth courses from any of the following departments or programs: African Languages, American Indian Studies, Asian American Studies, Chicana and Chicano Studies, or Gender Studies, and (3) a concentration of five courses in one of the following tracks and three courses in the other: (a) humanities—African American Studies M102, M103A, M103B, M103E, M104A through M104E, M107, M109, M10A, M110B, M111, CM112A through CM112F, M150D, M158A through M158E, M179A, 188A, 188B, C191, and (b) social sciences—African American Studies M114C, M114D, M114E, M118, M120, M144, M150D, M154C, M158A through M158E, M159P, M164, M165, M167, M172, M173, M178, M179A, M182A, M182B, M182C, M183A, M183B, M183C, 188A, 188B, C191, M194A, M194B.

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

Students are encouraged to engage in a culminating activity, such as an internship, independent study, honors thesis, service learning course, Center for American Politics and Public Policy program, University of California Center Sacramento program, Education Abroad Program, or other African American studies-related project or performance course.

Honors Program

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

African American Studies 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.

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.

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.

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 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of African American Studies offers the Master of Arts (M.A.) degree in African American Studies. A concurrent degree program (African American Studies M.A./Law J.D.) is also offered.

African American Studies

Lower Division Courses

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 African-American thinkers have interpreted experiences of blacks in U.S., drawing from such fields as history, philosophy, and literature. Letter grading.

M104. Topics in African American Literature and Culture. (5). (Same as English M104E) Lecture, four hours; discussion, one hour. Exploration of racial identities, intersectionality, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? What are the implications of how black activists, artists, and in- formation about major features of American life and society, including visits to various key African American art institutions in Los Angeles. Concurrently scheduled with course CM212D. P/NP or letter grading.

M110E. African American Music in California. (4). (Same as Ethnomusicology CM112.) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine their impact on development of African American music in Cali- fornia. Concurrently scheduled with course CM212A. P/NP or letter grading.

CM112E. Imaging Black Popular Culture. (4). (Same as Art History CM112F) Lecture, three hours. Critical examination of media ranging from African American paintings and sculptures to MTV and advertising, with emphasis on relationship between black visual pro- duction and racism, Afrocenrtism, political resistance, and notions of blackness. Concurrently scheduled with courses CM212F, P/NP or letter grading.

M114C. African American Political Thought. (4). (Same as Labor and Workplace Studies M114C and Political Science M180A.) Lecture, three or four hours; discussion, one hour (when scheduled). Consideration of how black activists, artists, and intellectuals in various parts of the globe have worked to envision and enact real possibilities for sovereignty and liberation both at home and abroad. Letter grading.

M141. African American Women’s History. (4). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M141L.) Lecture, four hours. Historical examination of black women’s experiences in U.S. from antebellum to present. How do historians uncover black women’s historical lives and what are the challenges to such discoveries? Examination of black women’s individual and collective production.

M104E. 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. Vari- able topics lecture course that provides opportunity to cover African American literature from wide range of theoretical and aesthetic perspectives. Topics may include African American auto- biography, 20th-century African American literature and film, black diaspora literature, postmodern Af- rican American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M107. Cultural History of Rap. (5). (Same as Ethnomusi- cology M1119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. Letter grading.

M109. Women in Jazz. (4). (Same as Ethnomusi- cology M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and related musical traditions from 1880s to present. Survey of roles of women instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

M110A-M110B. African American Musical Heritage. (5-5). (Same as 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 Americas; music of 17th through 19th centuries; minstrelsy and its impact on representa- tion of blacks in film, television, and theater; reli- gious music, including hymns, spirituals, and gospa- l; music of Caribbean and Central and South America; and music of black Los Angeles. M110B. Sociocultural history and survey of African American music, including role in development and racism, Afrocentrism, political resistance, and notions of blackness. Concurrently scheduled with courses CM212F, P/NP or letter grading.

M111. Ellingtonia. (4). (Formerly numbered M114S.) (Same as Ethnomusicology M1111.) Lecture, three hours. Music of Duke Ellington, his life, and far- reaching influence of his efforts. Ellington’s music, known as Ellingtonia, is one of largest and perhaps most influential bodies of music ever produced in the U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Stray- horn and musicians Johnson Hodges, Counttee Wil- liams, and Mercer Ellington. P/NP or letter grading.

M112A. African American Music in California. (4). (Same as Ethnomusicology CM112.) Lecture, four hours. Historical and analytical examination of African American music in California, including history, migration patterns, and urbanism to determine their impact on development of African American music in Cali- fornia. Concurrently scheduled with course CM212A. P/NP or letter grading.

M112B. African American Art. (4). (Same as Art History CM112D) Lecture, three hours. Detailed in- quiry into work of 20th-century African American art- ists whose works provide insightful and critical com- mentary about major features of African American life and society, including visits to various key African American art institutions in Los Angeles. Concurrently sched- uled with course CM212D. P/NP or letter grading.

M112E. African American Art. (4). (Same as Art History CM112E) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Intro- duction to survey of African American art from 1980s to present covering range of genres, with em- phasis 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, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M120. Race, Inequality, and Public Policy. (4). (Same as Public Policy M120.) Lecture, three hours; discussion, one hour. Background in economics, so- ciology, 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.

140. Radical Black Imaginaries: Politics, Identity, and Struggle. (4) Lecture and discussion. Consideration of some more powerful visions for freedom, liberation, and racial justice in African diasporic world, with focus on political struggles, intellectual movements, and creative expressions that have produced radical black imagination during last century. Following of black diasporic citizens from Accra to Harlem to Ha- vana as they struggled for freedom within and beyond movements against colonialism and racial oppres- sion, for Pan-Africanism, feminism, and Negritude, and through utopian art forms like Afro-Futurism. Consideration of how black activists, artists, and intellectuals in various parts of the globe have worked to envision and enact real possibilities for sovereignty and liberation both at home and abroad. Letter grading.

M141. African American Women’s History. (4). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M141L.) Lecture, four hours. Historical examination of black women’s experiences in U.S. from antebellum to present. How do historians uncover black women’s historical lives and what are the challenges to such discoveries? Examination of black women’s individual and collective
struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women’s participation in and challenge to social movements, including suffrage, workers’ 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, and Transgender Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contemporary development of modem penal systems in U.S. with emphasis on impact of prison industrial complex on immigrants, including undocumented residents, homeless populations, women, African Americans, and transgender nonconforming and 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 transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M144. Ethnic Politics: African American Politics. (4). (Same as Political Science M182.) Lecture, three or four hours (when scheduled). Preparation: one 140-level political science course or one upper division course on race or ethnicity from history, psychology, or sociology. Requisite: Political Science M120. Lecture, discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with black Americans being primary case for analysis. Three specific 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.

M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4). (Same as History M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/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, rhythm and blues, soul, rock, and many other musical styles, offers students unique window into recent African American history. Letter grading.

M154C. Black Experience in Latin America and Caribbean I. (4). (Same as Political Science M184A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Culture, history, politics, 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.

M154D. Black Experience in Latin America and Caribbean II. (4). (Same as Political Science M184B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/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 American, Caribbean, and Latin American slave societies. P/NP or letter grading.

M158B-M158C. Introduction to Afro-American History. (4-4). (Same as History M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American experience, with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieu. P/NP or letter grading.

M158E. African American Nationalism in First Half of 20th Century. (4). (Same as History M150E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collectively built institutions, associations, organized protest movements, and ideological self-definition. P/NP or letter grading.

M159P. Constructing Race. (4). (Same as Anthropology M159P and Asian American Studies M169.) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.


M165. Sociology of Race and Labor. (4). (Same as Labor and Workplace 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 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 black 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.

M167. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4). (Same as Asian American Studies M166C, Chicana and Chicano Studies M130, and Labor and Workplace Studies M167.) Lecture, four hours. Discussion of development of theory of and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multiracial and multicultural campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4). (Same as Gender Studies M172 and Psychology M172.) Lecture, two and one-half hours. Designed for juniors/seniors. Examination of development and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multiracial and multicultural campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M175. Racial and Ethnic Disparities in Healthcare. (4). (Same as Sociology M175.) Lecture, four hours. Discussion of evolution of black divergence within African American community by focusing on evolution of differences—specifically class differences—that have minimized black progress when compared with other races and cultures like Asians and Jews. Examination of origins and plight of lower-class blacks in stark juxtaposition with leadership and African Americans occupying higher socioeconomic levels. Letter grading.

176. Race, Racism, and Law. (4). Lecture, four hours. Designed for students who are seeking to become healthcare professionals so they understand importance of how race and ethnicity impact delivery of healthcare. Focus on need to increase diversity of health professions workforce as means to address health disparities. Letter grading.

176A. Race, Racism, and Law. (4). Lecture, four hours. Throughout American history, race relations have been inextricably linked to law. Both perpetuation of racism and struggle against it have involved various legal institutions, especially U.S. Supreme Court. Lateral analysis of all sides have differences in establishing legal standards defining political, economic, social, and psychological status of African Americans and other racial/ethnic minorities. Historical overview and in-depth examination of selected major highlights of these legal developments, including Constitutional sources of racism, legal foundations establishing and eliminating slavery, major Supreme Court decisions before and during civil rights era, and contemporary legal retreat from civil rights protections. Examination of legal processes and legal profession in broader historical and political context. Letter grading.

177. Africans in Higher Education. (4). Lecture, four hours. Discussion and exploration of challenges facing black students at predominantly white institutions (PIEs), with emphasis on the extent to which Proposition 209 has affected black student community, spaces on and off campus that empower students, and issues of access and equity in higher education. Critical discussions about student experiences/concerns/challenges at UCLA, addressing specific strategies for success, and notions of empowerment that provide context for students from underrepresented backgrounds at predominantly white universities. Letter grading.

178. Sociology of Caribbean. (4). (Same as Sociology M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on the role of the European, French, British, and American colonialization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

M179A. Topics in African American Literature. (5). (Same as English M191A.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H, Variable specialized studies course in African American literature. Topics may include Harlem Renaissance, African American Literature in Nadir, Black Women’s Writing, Contemporary African American Fiction, African American Poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M182A. Language, Literacy, and Human Development Ethnography (2). (Same as Education M182A.) Fieldwork, three hours. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of literacy and language and literacy learning with practice. Letter grading.

M182B. Culture, Gender, and Human Development Ethnography (2). (Same as Education M182B.) Fieldwork, three hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.
learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M192C. Cultural Communications, and Human Development Ethnography (2). (Same as Education M182C.) Fieldwork, three hours. Enforced corequisite: course M194C. Students visit after-school site on a weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M193A. Language, Literacy, and Human Development Ethnography (3). (Same as Education M183A.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on a weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M193B. Culture, Gender, and Human Development Ethnography (3). (Same as Education M183B.) Fieldwork, 18 hours. Enforced corequisite: course M194C. Students visit after-school site on a weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183A. Language, Literacy, and Human Development Ethnography (3). (Same as Education M183A.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on a weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars 5 (Same as Education M194A) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182A or M183A. 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. May be taken independently for credit. Letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars 5 (Same as Education M194B) Seminar, four hours. Research seminar on selected topics in Afro-American studies. Reading, discussion, and development of culminating project. May be repeated for credit. Concurrently scheduled with course 299. Letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars 5 (Same as Education M194A) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182C or M183C. 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. May be taken independently for credit. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminars 6 (Same as Education M194C) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182C or M183C. 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. May be taken independently for credit. Letter grading.

Graduate Courses

M200A. Advanced Historiography: Afro-American. (4.) (Same as History M200V) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M200C. Black Families and Relationships. (4.) (Same as Sociology M200C) Seminar, three hours. May be repeated for credit. S/U or letter grading.

CM121A. African American Music in California. (4.) (Same as Ethnicmusicology CM121A) Lecture, four hours. Concentration on African American music in California. S/U or letter grading.

CM122. African American Music in California. (4.) (Same as Ethnicmusicology CM122) Lecture, four hours. Historical and analytical examination of African American music in California including migration patterns, and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM112A. S/U or letter grading.
African Studies
Interdepartmental Program
College of Letters and Science

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Ghislaine E. Lydon, Ph.D., Chair
Faculty Committee

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Françoise Lionnet, Ph.D. (Comparative Literature, French and Francophone Studies, Gender Studies)
Ghislaine E. Lydon, Ph.D. (History)
Edith Mukudi Omwami, Ph.D. (Education)
Steven D. Nelson, Ph.D. (Art History)
Allen F. Roberts, Ph.D. (French and Francophone Studies, World Arts and Cultures/Dance)
Paula A. Tavrow, Ph.D. (Community Health Sciences)
Dominic R. Thomas, Ph.D. (Comparative Literature, French and Francophone Studies)
Kathryn D. Thompson, Ph.D. (Applied Linguistics)
William H. Worger, Ph.D. (History)

Scope and Objectives

The intellectual objective of the African Studies M.A. 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 M.A. in African Studies and the Master of Public Health (M.P.H.) 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 minor in African Studies can be found in the International and Area Studies section later in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The African Studies Program offers the Master of Arts (M.A.) degree in African Studies. A concurrent degree program (African Studies M.A./Public Health M.P.H.) is also offered.

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 dimensions. Review of discipline’s literature, resources, career opportunities, and professionals themselves. Letter grading.

M229B. Africana Bibliography and Research Methods. (4). (Same as Information Studies M229B.) Discussion, four hours. Problems and techniques of research methodologies related to Africana studies. Emphasis on relevant basic and specialized reference materials, using full range of available information resources, including library collections of books, serials, and computerized databases. S/U or 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 M.A. 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.


American Indian Studies
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Paul V. Kroskrity, Ph.D., Chair
American Indian Studies / 125

Scope and Objectives
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 M.A. program in American Indian Studies was established here. The Bachelor of Arts degree and the undergraduate American Indian Studies minor provide 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.

The Master of Arts 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 M.A. program ranks among the top Indian studies programs in the country.

Undergraduate Study
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.

American Indian Studies B.A.
Capstone Major
The American Indian Studies B.A. program is designed to offer a coherent and comprehensive curriculum in American Indian cultures, societies, and contemporary issues in addition to valuable background in more traditional disciplines such as anthropology, art history, economics, education, history, law, linguistics, literature, sociology, and world arts and cultures. Students acquire a critical knowledge of the concepts, theories, and methods that have produced knowledge about American Indians in the traditional disciplines. Students are encouraged to develop a concentration—or special expertise—in these fields to accompany the major.

The curriculum encompasses the cultural, historical, political, and social experiences of Native Americans in the Americas. Through courses on Native American literature, languages, theater, and contemporary societies and through more culturally specific courses on California Indians, cultures of the Pueblo southwest, and so on, the major provides 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.

Preparation for the Major
Required: American Indian Studies M10 and two courses from Anthropology 9, Gender Studies 10, Political Science 40, Statistics 12. Each course must be completed with a grade of C or better.

Transfer Students
Transfer applicants to the American Indian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to American Indian studies course and two courses from culture and society, introduction to gender studies, introduction to American politics, or introduction to statistical methods.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Requirements are distributed according to certain categories to create a breadth of knowledge. Students are required to take a research methods course to become familiar with scholarly techniques of knowledge production and to critically regard academic research, as well as a course in either ethnic/race/gender relations or comparative indigenous studies. Additional courses are selected in the social sciences and humanities according to a distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth. Finally, American Indian Studies C122SL prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that provides 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 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 M140, C144, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, C170, History 149A, 149B, 157B, (d) one social sciences course from American Indian Studies C120, C121, C130, C175, C178, Anthropology 172A, or 174P, (e) two expressive culture courses from American Indian Studies 180, Art History C117A through C117B, 118D, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 139, Art History 100, Community Health Sciences 181, Comparative Literature 100, Ethnomusicology 180, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/gender relations course (American Indian Studies M164, Anthropology M134, M154P, M154Q, Asian American Studies 130A, M130B, M130C, 131A, 132A, 133, 134, Chicana and Chicano Studies CM182, Communication Studies 124, Film and Television 128, Gender Studies 130, 168, Sociology 154, 156, or M162) or one comparative indigenous studies course (Anthropology 153P, Geography M131, History 135A, or Sociology 157)

2. American Indian Studies C122SL (experiential service learning or supervised internship)

3. American Indian Studies 199C (capstone course)

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. No more than two independent studies courses (199s) may be applied toward the degree.

Honors Program
The honors program is designed for American Indian Studies majors who are interested in carrying out an independent research project that culminates in an interdisciplinary honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project. All junior and senior American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative average of 3.0 in American Indian Studies courses are eligible to apply for admission to the honors program. Students interested in the honors program should consult with their major advisor to discuss the requirements. The honors program requires completion of 60 units in the major with a minimum grade point average of 3.0, a minimum grade point average of 3.5 in the major upper division courses and upper division courses in the humanities and social sciences, and a minimum grade point average of 3.5 in the upper division courses in the major. Students must complete a major honors thesis, which is a capstone for the honors major. The honors thesis must be submitted to the Honors Program Committee by the end of the semester in which the student expects to graduate. The honors thesis is graded on a scale of A through F, with the grade being determined by the Honors Program Committee. The honors program also requires completion of a major honors thesis, which is a capstone for the honors major. The honors thesis must be submitted to the Honors Program Committee by the end of the semester in which the student expects to graduate. The honors thesis is graded on a scale of A through F, with the grade being determined by the Honors Program Committee.

The honors program is designed for American Indian Studies majors who are interested in carrying out an independent research project that culminates in an interdisciplinary honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project. All junior and senior American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative average of 3.0 in American Indian Studies courses are eligible to apply for admission to the honors program. Students interested in the honors program should consult with their major advisor to discuss the requirements. The honors program requires completion of 60 units in the major with a minimum grade point average of 3.0, a minimum grade point average of 3.5 in the major upper division courses and upper division courses in the humanities and social sciences, and a minimum grade point average of 3.5 in the upper division courses in the major. Students must complete a major honors thesis, which is a capstone for the honors major. The honors thesis must be submitted to the Honors Program Committee by the end of the semester in which the student expects to graduate. The honors thesis is graded on a scale of A through F, with the grade being determined by the Honors Program Committee. The honors program also requires completion of a major honors thesis, which is a capstone for the honors major. The honors thesis must be submitted to the Honors Program Committee by the end of the semester in which the student expects to graduate. The honors thesis is graded on a scale of A through F, with the grade being determined by the Honors Program Committee.
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.

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.

Required Lower Division Course (5 units): American Indian Studies M10 with a grade of C or better.

Required Upper Division Courses (28 units):

1. Seven courses selected from the following: (1) one American Indian languages and communication systems course (Anthropology C144 or Linguistics 114); (2) three history and social sciences courses from American Indian Studies C120, C121, C122SL, C130, 140, 158, C170, C175, C178, Anthropology 113Q, 113R, 114P, 114R, 114S, 114T, 114U, 114V, 114W, Gender Studies 130, History 149A, 149B, 157B, Sociology M161; (3) three humanistic perspectives on language and expression culture courses from American Indian Studies 180, Art History C117A, C117B, C117C, 118D, English 106, 180, Ethnomusicology 106A, 106B, Theater 103F.

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 the interdepartmental adviser before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees on the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The American Indian Studies Program offers the Master of Arts (M.A.) degree in American Indian Studies. A concurrent degree program (American Indian Studies M.A./Law J.D.) is also offered.

American Indian Studies

Lower Division Course

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 nations and 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.

Upper Division Courses

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4). (Same as African American Studies M118, Political Science M168, and Chicano/Latino 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.


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.


140. Federal Indian Law and Policy. (4). Lecture, four hours. Through readings, discussion, and Native guest lecturers, introduction to fundamental concepts and history of federal Indian law and policy, investiga-

tion of contemporary policies and legal issues and exploration of Native responses to policy and law. Letter grading.

C145. Contemporary Indigenous Nations. (4). Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice, conflict and conciliation, self-determination, education and socialization, international relations, comparative policy, colonialism, migration, national and social identities, and other issues and social-cultural processes, seen as distinct from ethnicity, race, class, and nation, with focus on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytic and policy patterns that give greater understanding and knowledge about current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C245. Letter grading.

158. Nation Building. (4). Lecture, three hours; fieldwork/research, nine hours. Limited to junior/senior American Indian Studies majors. Examination of historical and contemporary developments of political, social, and cultural change in indigenous Native American societies. Several theories of social change, applied to selected cultural processes, social movements, social and cultural change and continuity, and nation building. Letter grading.

M161. Comparative American Indian Societies. (4). (Same as Sociology M161,) Lecture, three hours. Required course M10 or equivalent as prerequisite and historical study of political, economic, and cultural change in indigenous North American societies. Letter grading.

M162. Language Endangerment and Linguistic Revitalization. (4). (Same as Anthropology M162,) Lecture, three hours; fieldwork/research, one hour. Required courses M10, Anthropology 33. Examination of causes and consequences of current worldwide loss of linguistic diversity and revelation of kinds of efforts that members of threatened language communities have produced in their attempt to revitalize these languages. Projected loss of as many as half of world’s languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideological change, and language shift away from indigenous 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.

C170. California Indian History. (4). Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussion, and Native guest lecturers. May be repeated for credit with topic, research, and consent of department 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, guest lecturers, and direct community participation. May be repeated for credit with topic, research, and consent of department chair. Concurrently scheduled with course C275. Letter grading.

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California Experiences in Native Cultural Resource Management. (4). Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 378 (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.

Introduction to and Practicum in Native American Studies. (3). Lecture, three hours; laboratory, one hour. Development of ability to converse, read, and write at elementary level in Native American languages. Introduction to both phonological and grammatical structures, vocabulary, and cultural patterns of using language as symbolic guide to culture. May be repeated with language change and approval of interdepartmental chair. Letter grading.

Indigenous Films. (5). (Same as World Arts and Cultures M187.) Lecture, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. Letter or P/NP grading.

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 topics and instructors. May be repeated for credit. Letter grading.

Community Internships in American Indian Studies. (4). Tutorial, two hours, fieldwork, eight hours. Requisite: course M10. Limited to juniors/seniors. Internship in supervised setting in community agency. Students meet on regular basis with instructor and provide periodic reports on their experience. Designed to integrate theory and practice through experiential learning to gain firsthand knowledge of diversity, complexity, and variety of needs of American Indian communities. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Comparative Approaches to Community and Corporate Internships. (4). (Same as African American 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 bimonthly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues associated with internship site. Individual in contact with supervising faculty member required. P/NP or letter grading.

Individual Studies in American Indian Studies. (2 to 8). Seminar, three hours; fieldwork, eight to 10 hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Honors Research in American Indian Studies. (4-4-4). Tutorial, one hour; activity, three hours. Open to seniors. Only honors research is enforced requisite to 198B, which is enforced requisite to 198C. Limited to senior honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Each course may be repeated for credit. Individual contract required. Letter grading.

Directed Research-Senior Project in American Indian Studies. (2 to 8). Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating written project may be repeated for credit. Individual contract required. P/NP or letter grading.

Individual Studies: Capstone Synthesis. (4). Tutorial, three hours. Preparation: successful completion of eight upper division major courses. Limited to senior American Indian Studies majors. Faculty members help students relate their course-derived academic experience to their original research/service efforts involving Native American communities. Completion of research paper and presentation of student work at year-end Research Symposium required. Must be taken in conjunction with American Indian Studies C222SL or an alternative upperdivision course approved by program chair and academic coordinator. Individual contract required. Letter grading.

Graduate Courses

Advanced Historiography: American Indian Peoples. (6). (Same as History M200W) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Stereotypical approach to contem- porary view of Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

Cultural World Views of Native America. (4). (Same as English M266.) Seminar, three hours. Explores various Native American cultures and other expressive cultural forms—dance, art, song, religious and medicinal ritual—in selected Na- tive American societies, as these traditional and tribal contexts have been translated into contemporary lit- erary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary method- ological approaches taken from literary analysis, structural anthropology, folklore, linguistics, and eth-nomusicology. May be repeated for credit with in- structor and/or topic change. Letter grading.

Contemporary Issues of American Indi- ans. (4). (Same as Anthropology M269 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 presented in course M200A and cultural and expressive experience of American Indians presented in course M200B. Letter grading.

Economic Principles and Economic De- velopment in Indigenous Communities. (4). (Same as Public Policy M270.) Seminar, two hours; discus- sion, one hour. Limited to graduate students. Intro- duction to basic economic concepts and their appli- cation to issues of economic development in inde- nisive communities. Coverage of microeconomic and macroeconomic aspects of economic development using current and existing research. Letter grading.

Topics in American Indian Studies. (4). Seminar, three hours. Limited to graduate students. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incor- porate them in research on American Indian cultures, so- ciety, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special con- siderations in conducting research in American Indian country. Design of research and evaluation of feasi- bility of researching topics. Letter grading.


Working in Tribal Communities: Preparing for Fieldwork. (4). Lecture, four hours. Through readings, discussion, Native guest lecturers, and project participation, introduction to conduct and skills necessary to successfully work or carry out community service projects for Native American communities and organizations. Concurrently scheduled with course C122, P/NP grading.

Working in Tribal Communities: Service Learning. (4). Seminar, one hour; fieldwork, four hours. Enforced requisite: course C221. Recommended: course C220. Participation in community service learning opportunity with Native American communities and organizations where students are mentored and supported by faculty members, other stu- dents, and project directors toward completing as- signments, service learning tasks and contributing to project activities. May be repeated with consent of in- structor. Concurrently scheduled with course C222SL, S/U or letter grading.

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Economic Development and Tribal Le- gal Systems. (228A; 3 or 4/228B: 1 or 2). (Formerly numbered M228A.) Seminar, two hours. Course 228A is enforced requisite to 228B. Study of traditional and contemporary legal systems of Native American tribal nations. Detailed examina- tion of general differences including Na- vajo, Cherokee, Iroquois, and Hopi, with emphasis on diversity of tribal legal regimes, comparisons with American legal system, changes in tribal sys- tems during period of contact with non-Indians, and relationship between tribes’ legal systems and other aspects of their cultures, such as religion and social structure. Independent study. Focus on topics in contemporary or historic topic required. Concurrently scheduled with Law 528. In Progress (228A) and S/U or letter (228B) grading.

California Indian Strategies for Contempo- rary Challenges. (4). Seminar, three hours. Through readings, discussion, and Native guest lecturers, intro- duction to contemporary issues and processes of self-directed social change and political, cultural, legal, and economic concerns of tribes in the context of the contemporary California Native communities. Con- currently scheduled with course C130, S/U or letter grading.

Tribal Legal Development Clinic. (238A-238B). (Formerly numbered as Public Law 728.) Three hours. Course 238A is en- forced requisite to 238B. Students provide nonlitiga- tion legal assistance to Indian nations. Projects in- clude development and modification of tribal legal codes and constitutional provisions, creation of tribal dispute resolution processes, and drafting of inter- governmental agreements. Legislative drafting and cross-cultural representation skills emphasized. Fac- ulty members meet with tribal leaders to inform them of availability of clinic services and determine whether clinic could assist them with their legal development needs. All the students in the course meet with tribal proj- ects, they meet with relevant tribal officials and com- munity groups with travel funds supplied. Students learn about tribal governments and legal systems, in- clude development and modification of tribal legal institutions, and culture of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with Law 728. In Progress (238A) and S/U or letter (238B) grading.

Contemporary Indigenous Nations. (4). Seminar, three hours. Introduction to topics on contemporary Indigenous nations in the Pacific, social and cultural change and continuity, na- tion building, law and justice relations, economic de- velopment, education and socialization, international relations, comparative policy, colonialism, migration, national and social identities, and other issues and
social cultural processes, seen as distinct from eth-
nicity, race, class, and nation, with focus on inde-
gnous communities that have maintained self-govern-
ment, territory, investigation and search for analy-
for analytic and policy patterns that give greater un-
derstanding and knowledge about current conditions
and social and cultural processes of indigenous na-
tions. Concurrently scheduled with course C145, S/U
or letter grading.

261. Comparative Indigenous Societies. (4). Lec-
ture, two hours; discussion, two hours. Designed for
graduate isolation of detailed historical and con-
temporary ethnographic analyses of social change
and cultural continuity within indigenous na-
tions, primarily of U.S., but elsewhere also. Discus-
sion of theories of change, comparative methodolo-
gies, and case materials. Letter grading.

265. Federal Indian Law I. (4 or 6). (Formerly num-
bered M265). 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 issues posed
by federal Indian legislation; canons of construction
unique to Indian law; tribal sovereignty and its pro-
tection; basic questions of federal and state author-
ity within Indian country; and tribal, federal, and state ju-
risdiction in Indian country according to default rules
as well as special Indian laws. May be concurren-
tly scheduled with Law 267. S/U or letter grading.
M265A-265B. Federal Indian Law I. (1 to 8 each).
(Formerly numbered M267.) (Same as Law M267.)
Lecture, three hours. Course M265A is enforced req-
quisite to 265B. Overview of federal Indian law through
study of cases and historical and contemporary ma-
terials. Basic conflicts among sovereign governments
that dominate this area of law, especially conflicts
over criminal, civil adjudicative, and regulatory juris-
diction. Special attention to status and sovereign
powers of Indian nations as recognized under U.S. law,
federal Indian law, and under international law. May be concurren-
tly scheduled with Law 267. S/U or letter grading.

M267. Federal Indian Law II. (1 to 8). (Same as Law
M382.) Lecture, three hours. Requisites: courses
M238A and 238B, or M265A and 265B. Examination
in-depth of principles and doctrines of federal Indian
law as applied to property rights in land, cultural re-
sources, 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, ad-
dressed. S/U or letter grading.

M267A-267B. Federal Indian Law II. (1 to 8 each).
(Same as Law M382.) Lecture, three hours. Requi-
sites: courses M238A and 238B, or M265A and 265B.
Course M267A is enforced requisite to 267B. Examina-
tion in-depth of principles and doctrines of federal Indian
law as applied to property rights in land, cultural re-
sources, 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, ad-
dressed. In Progress (M267A) and S/U or letter (267B) grading.

C270. California Indian History. (4). Lecture, four
hours. Introduction to overview of California Indian
history, specific tribal community histories, and/or con-
temporary California Indian history through read-
ings, discussion, and Native guest lecturers. May be
repeated for credit with topic change and consent of
interdepartmental chair. Concurrently scheduled with
course C170, S/U or letter grading.

M272. Seminar: Cultural Property Law. (3 or 4).
(Same as Law M514.) Seminar, three hours. Explora-
tion of identity, ownership, appropriation, and repatri-
aton of both tangible and intangible cultural prop-
erty—those items that are of great significance to cul-
tural heritage and cultural survival of people. Consideration of importance of preservation of cul-
tural property as means of maintaining group identity,
self-determination, and collective rights. Examination
of both international and domestic law governing these
issues, addressing such questions as How should
cultural property be defined? Can cultural property
be protected by underlying intellectual prop-
erty and cultural property regimes? How can we bal-
ance protection of cultural property against need or
desire for its use in creative expression or scientific
advancement? Examination of cultural property of
groups in general, with emphasis on cultural property
of indigenous peoples, including folklore, traditional
knowledge, burial grounds, sacred sites, and ancient
ceremonies and traditions. S/U or letter grading.

274. Good Native Governance. (4 or 6). Seminar,
three hours. Examination of legal issues integral to
governance that Native American nations face in 21st
century, including those that impact and shape polit-
ical sovereignty, economic development, constitu-
tional reform, membership criteria, cultural property
protection, sacred sites, religious freedom, and safety
and criminal law enforcement, among others. Em-
phasis on breadth of issues that lawyers working with
and for Native nations must confront. Integration and
highlighting of legal issues unique to Native nations
within California. Materials from traditional law review
articles, books, and case studies derived from field
research to engage students in multidimensional set-
tings that confront Native societies. May be concur-
rently scheduled with Law 637. S/U or letter grading.

C275. Cultures of Native Southern California. (4).
Lecture, three hours. Introduction to Southern Cali-
ifornia indigenous societies through readings, discus-
sions, and for analysis and policy patterns that give greater un-
derstanding and knowledge about current conditions
for analytic and policy patterns that give greater un-
derstanding and knowledge about current conditions
in-depth of principles and doctrines of federal Indian
law that affect cultural resource management in Cali-
ifornia, such as California Environmental Quality Act
(CEQA), Native American Graves Protection and Re-
patriation Act (NAGPRA), AB 978 (California NAGPRA),
American Indian Religious Freedom Act, National
Environmental Policy Act (NEPA), and Na-
tional Historic Preservation Act (NHPA), from applied
standpoint. To understand goals and challenges of
these laws, examination of series of cases from Cali-
ifornia sites. Concurrently scheduled with course C175.
S/U or letter grading.

C276. California Experiences in Native Cultural
Resource Management. (4). Seminar, three hours.
Exploration of creation and implementation of laws
that affect cultural resource management in Cali-
ifornia, such as California Environmental Quality Act
(CEQA), Native American Graves Protection and Re-
patriation Act (NAGPRA), AB 978 (California NAGPRA),
American Indian Religious Freedom Act, National
Environmental Policy Act (NEPA), and Na-
tional Historic Preservation Act (NHPA), from applied
standpoint. To understand goals and challenges of
these laws, examination of series of cases from Cali-
ifornia sites. Concurrently scheduled with course C178.
S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4). Sem-
inar, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA.
May be repeated for credit. S/U grading.

596. Directed Individual Studies. (4 to 8). Tutorial,
if available. S/U or letter grading.

598. Research for and Preparation of M.A. Thesis.
(4 to 8). Tutorial, if available. S/U or letter grading.

199. Directed Research in Anesthesiology. (2 to 8).
Tutorial, two hours. Limited to juniors/seniors. Super-
vised individual research or investigation under guid-
ance of faculty mentor. Culminating paper required.
May be repeated for credit. Individual contract re-
pired. P/NP or letter grading.
**Anthropology**

**College of Letters and Science**

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Mariko Tamanoi, Ph.D.  
Russell Thornton, Ph.D.  
James W. Stigler, Ph.D.  
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**Professors Emeriti**

Nicholas G. Burton Jones, Ph.D.  
Robert Boyd, Ph.D.  
Karen B. Brodkin, Ph.D.  
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Christopher B. Donnan, Ph.D.  
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Dwight W. Read, Ph.D.  
James R. Sackett, Ph.D.  
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Min Li, Ph.D.  
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**Adjunct Assistant Professors**

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Jessica W. Lynch Alfaro, Ph.D.  
Tritia Toyota, Ph.D.  
Thomas A. Wake, Ph.D.

**Scope and Objectives**

Anthropology, the broadest of the social sciences, is the study of human kind. 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.

The Department of Anthropology recognizes the following four fields in anthropology:

- **Archaeology.** The study of human cultures and the natural, social, ideological, economic, and political environments in which they operated in the recent and distant past. The graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, analytic, and topical courses), and the unfolding of prehistory in many regions of the world, including North America, Mesoamerica, South America, and several parts of the Old World (regional courses). Faculty members have long-standing interests in the origins and evolution of complexity, including early human adaptations, the political organization of complex hunters/gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

- **Biological anthropology.** 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 evolution theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia where ongoing projects include work on primate behavior, hominid evolution, and evolutionary psychology.

- **Linguistic anthropology.** 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.

The department offers Bachelor of Arts and Bachelor of Science degrees and a minor in Anthropology for undergraduate students; the graduate program leads to the Master of Arts and Ph.D. degrees. Studies in anthropology are particularly valuable for students planning careers in which an understanding of human behavior and cultural diversity is desirable, such as business, education, law, medicine, nursing, public health, social welfare, and urban planning. Because of its breadth of outlook, anthropology also offers an ideal basis for those seeking a general education in our increasingly interdependent world.

**Undergraduate Study**

**Anthropology B.A.**

**Preparation for the Major**

Required: Anthropology 7, 8, 9, 33. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Transfer Students**

Transfer applicants to the Anthropology B.A. 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 at http://www.admissions.ucla.edu/prospect/admtr.htm for up-to-date information regarding transfer selection for admission.
The Major
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.

To provide 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 “Scope and Objectives”). Students may take any upper division course in the given area to fulfill this requirement. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Students must complete 11 courses (44 to 52 units) as follows: (1) two upper division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper division region and society course, (3) one upper division history/theory course, (4) one upper division methodology course, 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.

Anthropology B.S.

Preparation for the Major
Required: Anthropology 7, 8, 9, 33; Chemistry and Biochemistry 14A, 14B, 14BL, and 14C; or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12, or Life Sciences 30A, 30B, and Statistics 13; Physics 6A, 6B, and 6C, or 6AH, 6BH, and 6CH. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Transfer Students
Transfer applicants to the Anthropology B.S. 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 at [http://www.admissions.ucla.edu/prospect/admtchtml](http://www.admissions.ucla.edu/prospect/admtchtml) for up-to-date information regarding transfer selection for admission.

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

Students must complete nine courses as follows: (1) two upper division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper division region and society course, (3) one upper division history/theory course, 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 provides research-oriented students with opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper division anthropology courses. The application for admission must be submitted during Fall Quarter. Ideal candidates should have junior or senior standing and have completed at least two upper division anthropology courses. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in Winter Quarter and 191HB in Spring Quarter. Research should be done in summer, and courses 191HC and 191HD are taken in Fall and Winter Quarters of the graduation year. Students should contact the departmental honors advisor early in their studies for more information.

Anthropology Minor
Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four fields within anthropology (archaeology, biological anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Courses (10 units): Two courses from Anthropology 7, 8, 9, 33.

Required Upper Division Courses (20 units minimum): Core course (Anthropology 111, 120, 130, M140, or 150) 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 advisor in planning their program 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, [http://grad.ucla.edu/gasasa](http://grad.ucla.edu/gasasa)/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Anthropology offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Anthropology.

Anthropology

Lower Division Courses
1. Welcome to America: American Culture for International Students, (4). Lecture, four hours. Designed for incoming international students. Introduction to American culture from anthropological perspective. Exploration of central aspects in American culture, including immigration, ethnic diversity, family, popular culture, and myths and realities about values at core of American society. Offered in summer only. P/NP or letter grading.

2. America through Lenses of Popular Culture, (4). Lecture, four hours. Designed for students interested in life and values in U.S. from anthropological perspective. Exploration of popular culture as experienced by Americans from various age groups, ethnic heritages and genders, and regional locations. Topics include music and art, film and television, sports, other entertainment, food, and technology. Employment of anthropological methods of inquiry and brief fieldwork. P/NP or letter grading.

3. 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.

8. Archaeology: Introduction, (5). Lecture, three hours; discussion, one hour; one field trip. Required as preparation for both bachelor’s degrees. General survey of field and laboratory methods, theory, and major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

9. Culture and Society, (5). Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor’s degrees. Introduction to study of culture and society in comparative perspective. Examples from societies around world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.

33. 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 ethno- graphically oriented methods focused on context-bound temporal unfolding of communicative activ-
Upper Division Courses

Archaeology

110P. Principles of Archaeology. (4). Lecture, three hours; discussion, one hour (when scheduled). Requisi-
tie. Intended for students interested in conceptual structure of scientific archaeology. Arch-
are. May be repeated for credit with topic change. Pre-registration required. P/NP or letter grading.

114R. Ancient Civilizations of Andean South Amer-
ica. (4). Lecture, three hours. Pre-requisite: course 8 or 9. Pre-Hispanic and Conquest period cultures of Andean South America, as revealed by archaeology and early civilizations. Social and cultural factors in the period of Andean cultures. May be repeated for credit with topic change. P/NP or letter grading.

115A-M115B. Historical Archaeology. (4-4). (Same as History M102A-M102B.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
nior/seniors. P/NP or letter grading. M115A, World Perspect-ive. Historical archaeology requires appreci-
ation of the changing historical and archaeological landscape from simple graphs to virtual reality. Concurrently scheduled with course CM120Q. P/NP or letter grading.

111. Theory of Anthropological Archaeology. (4). Lecture, three hours. Pre-requisite: course 8. Method and theory with emphasis on archaeology within context of anthropology. Themes include theoretical develop-
ments over last 50 years, structure of archaeological reasoning, and selective survey of work on problems of general anthropological interest. P/NP or letter grading.

112. Old Stone Age Archaeology. (4). Lecture, three hours. Requisi-

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

114L. Archaeology of Chiefdoms. (4). Seminar, three hours. Enforced requisites: course 8. Examina-
tion of chiefdom societies in anthropological record, with readings focused on theory and data from archaeology, history, geography, and ethnohistorical literature. Illustration of how people in ranked non-state soci-
eties created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. Letter grading.

114P. Ancient Civilizations of Mesoamerica. (4). Lecture, three hours. Archaeology of pre-Hispanic na-	ive cultures of Mesoamerica from late Paleocoeide through Spanish conquest, with emphasis on forma-
tive sociopolitical developments, classic period civil-
izations, and Aztec society as revealed by archaeology and early Spanish writing. P/NP or letter grading.

118. Selected Topics in Archaeology. (4). Lecture, three hours. Study of selected topics in archaeology. Consult Schedule of Classes for topics and instruc-
tors. May be repeated for credit with topic change. P/NP or letter grading.

119E. Archaeology of Egypt and Sudan. (4). (Same as Ancient Near East M105.) Lecture, three 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. Discussion of particular archaeological themes, re-
gions, or sites, examination of methods of prehistoric and historic archaeology and how archaeologi-
apprates to understanding late antique, anti-

critic, and religious history. Background provided for development of group research projects—finding re-

gour, data gathering, analysis, interpretation, pre-

septation, and training on how to embark on research in this field. Computer laboratory component included in which student research is performed and presented in time map. P/NP or letter grading.

119P. Cities Past and Present. (4). Lecture, three hours. Requisi-
tie: course 8 or 9. Examination of an-
cient and modern cities to evaluate how urban form developed and continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including South America, Africa, and ancient Near East. Letter grading.

Biological Anthropology

120. Survey of Biological Anthropology. (4). Lecture, three hours. Requisi-
tie: course 7. Recommended requisite: course 8. Development of group research projects—finding re-
sources, data gathering, analysis, interpretation, pre-

tation, and training on how to embark on research in this field. Computer laboratory component included in which student research is performed and presented in time map. P/NP or letter grading.

121C. Evolution of Genus Homo. (5). Lecture, three hours; discussion, one hour. Requisi-
tie: course 7 or 12. Origin and evolution of genus Homo, including ar-

cademic sapiens and Neanderthals. Morphology, ecology, and behavior of these groups. Course ends with appearance of modern humans. May be taken independently for credit. P/NP or letter grading.

122P. Human Osteology. (4). Lecture, three hours; laboratory, four hours. Examination of human skeletal and muscular systems, concerned with both form and function. Students expected to recognize important anthropological landmarks, identify fragmentary bones, and know origins, insertions, and action of major muscles. How to sex and age skele-
tons and introduction to paleopathology. Letter grading.

123A. Human Behavioral Ecology. (4). (Formerly numbered 124.) Lecture, three hours. Recommended requisite: course 7 or Life Sciences 1. Survey of re-

search in human behavioral ecology. Review of nat-
ural and sexual selection, kin selection, and reciprocal altruism. Emphasis on current empirical studies of modern human behavior from evolutionary perspec-
tive, including social organization, sexual division of labor, parenting strategies, conflict, and cooperation. P/NP or letter grading.

124B. Evolutionary Psychology. (4). Lecture, three hours. Recommended requisite: course 7 or Life Sci-
cences 1. Survey of evolutionary psy-

chology. Review of relevant theory and the concept of genes, including empirical studies of modern human behavior from evolutionary perspective, in-
cluding social behavior, decision making, language, culture, and behavior in general. P/NP or letter grading.

124P. Evolution of Human Sexual Behavior. (4). Lecture, three hours; discussion, one hour. Recom-

mended requisite: course 7 or 12. Examination of human sexual relations and social behavior from evo-

lutionary perspective. Emphasis on theories and evi-
dence for differences between men and women in the patterns of growth, reproduction, fertility, mortality, parenting, and relationships with members of opposite sex. Letter grading.

126. Selected Topics in Biological Anthropology. (4). Lecture, three hours. Study of selected topics in biological anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. Letter grading.


129Q. Paleopathology. (4). Lecture, three hours. Designed for juniors/seniors. Evidence of disease and trauma, as preserved in skeletal remains of ancient and modern human populations. Discussions of medical procedures (trepanation), health status, ethnic mutilation (e.g., body modification, footbinding), cannibalism, and sacrifice. Roles such activities have played in human societies. Letter grading.

Cultural Anthropology

130. Study of Culture. (4). Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 9. Designed for juniors/seniors. Twentieth-century elaboration and development of concept of culture. Examination of five major paradigms: culture as human capacity, as patterns and products of behavior, as systems of meaning and cognition, as generative structure and semiotic system, as component in social and cultural construction. (Core course for cultural field.) P/NP or letter grading.

131. Culture: What Makes It All Work. (4). Lecture, three hours. Preparation: two lower division social sciences courses (may be from different departments). Examination of questions addressed by anthropologists in their study of what is meant by culture. Consideration of theories of culture and evolutionary origins of culture. Review of new analytic methods that allow students to begin to do quasi-experimental research into nature of culture and introduction to multigenerational simulation as framework for modeling how culture can be both supra-organic and embedded in minds of culture bearers. P/NP or letter grading.


133P. Visual and Documentary Ethnography. (4). Lecture, three hours. Photographs in anthropology serve many purposes: as primary data, illustrations of words in books, documentation for disapperaging objects, field notes, material objects for museum exhibitions, and even works of art. Topics include relationships between subject and treatment of image, between art photography and ethnographic documentation, role of museum photographs and social action and reality construction. (Core course as human capacity, as patterns and products of behavior, one hour (when scheduled). Requisite: Cultural Anthropology ethnographic documentation, role of museum photography. (4).


133S. Ethnometrics and Anthropology of Numeration. (4). Lecture, three hours. Counting systems such as one, two, three, more or modern equivalent of one, two, three, infinity are widespread in human societies. Counting things is important part of everyday life. But indigenous thinking goes far beyond the simple act of counting. Counting, and conceptual systems underlying counting are integrated with concepts people have about themselves and their societies. Numerals is product of social life and not just reflection of one's experience with physical world. Exploration of different ways that indigenous mathematical thinking is embedded in human societies and cultures, ranging from use of fractals in African art to algebra of kinship terminologies to cosmological systems formulated around concepts of numbers. P/NP or letter grading.


135A-135B. Introduction to Psychological Anthropology. (4-5). P/NP or letter grading.

135A. Historical Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 9. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include definition of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

135B. Current Issues. (4) Lecture, three hours; discussion, one hour. 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/NP or letter grading.


135T. Psychoanalysis and Anthropology. (4). Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between anthropology and psychoanalysis, considering both theory and method. History of and current developments in psychoanalysis; anthropological and psychoanalytic approaches to culture and human behavior; cross-cultural psychoanalytic approach. Letter grading.

136Q. Laboratory for Naturalistic Observations: Developing Skills and Techniques. (4) Laboratory, three hours. Skill of observing and recording behavior in natural settings, with emphasis on field training and practice in observing behavior. Group and individual projects. Discussion of some uses of observations and their implications for research in social sciences. P/NP or letter grading.

137. 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. P/NP or letter grading.

139. Field Methods in Cultural Anthropology. (5). Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to skills and tools of data ascertaining 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. Letter grading.

M139P. Fieldwork in Asian American and Pacific Islander Communities. (4). (Same as Asian American Studies M143A.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and indigenous research. Field excursions and guest lecturers from local community included. Given in Hawai’i. P/NP or letter grading.

Linguistic Anthropology

M140. Language in Culture. (5). (Same as Linguistics M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 33 or Linguistics 20. Study of language as aspect of culture; relation of habitual thought and behavior to language and culture. Language in action. How language and classification of experience. Logistic approach to study of language, with emphasis on relationship 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.

141. Ethnography of Everyday Speech. (5). Lecture, three hours; discussion, one hour; fieldwork, three hours. Requisite: course 33. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

M142R. Culture of Jazz Aesthetics. (4). (Same as Ethnomusicology M130 and World Arts and Cultures M138.) Lecture, three hours. Enforced requisite: course 9 or 33 or Ethnomusicology 20A or 20B or 20C or World Arts and Cultures 20. Aesthetics of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

C144. Native American Languages and Cultures. (4). Lecture, three hours. Requisite: course 33 or American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language use by Native North America and indigenous communities. Specific foci include both micro and macro-sociolinguistic topics. Micro-sociolinguistic topics are comprised of such issues as multilingualism, cultural differences regarding appropriate communicative behavior, and identification within speech communities (e.g., male and female speech, baby talk, ceremonial speech, etc.). Macro-sociolinguistic considerations include language contact and language shift, language change and language in American Indian education. Concurrently scheduled with course C243P. P/NP or letter grading.
147. Selected Topics in Linguistic Anthropology. (4). Lecture, three hours. Study of selected topics in linguistic anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

M148W. Talk and Body. (5). (Same as Applied Linguistics M151W and Communication Studies M123W) Lecture, three hours; discussion, one hour. Enforced prerequisite: English Composition 3 or 3H or English as a Second Language. Relationship between language and human body raises host of interesting topics. View anthropological phenomena as embodiment become possible when body is analyzed, not as isolated entity, but as visible agent whose talk and action are lodged in both processes of human embodiment. Writing assignments will require pursuit courses of action that count in their lives. Satifies Writing II requirement. Letter grading.

149A. Language and Identity. (4). Lecture, three hours. Requisite: course 33. Language as social phenomenon. Introduction to several angles from which language use can be critically examined as integral to interactions between individuals and between social groups. Letter grading.

149B. Gender and Language in Society. (4). Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 33. Examination of role language plays in social construction of gender identities and ways in which gender impacts language use and ideology. Letter grading.

149C. Multilingualism: Communities and Histories in Contact. (4). Lecture, three hours. Requisite: course 33. Examination of communicative, political, and poetic aspects of use of two or more languages (multilingualism) by individuals and by groups. Broad themes in social theory, anthropological inquiry, sociolinguistics, and literary studies in lectures to contextualize class readings. Letter grading.

149D. Language, Culture, and Education. (4). Lecture, three hours. Requisite: course 33. Examination of various ways in which culture, and language in particular, influence not only educational processes and outcomes, but also very conceptions of what normal development processes and desirable educational outcomes are. Letter grading.

M149E. Language Socialization. (4). (Same as Applied Linguistics M125S) Seminar, four hours. Exploration of process of socialization through language, and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Examination of topics in which verbal interaction between novices and experts is structured linguistically and culturally. Letter grading.

149F. Language and Social Organization through Life History. (4). Discussion, one hour (when scheduled). Requisite: course 33. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using videotaped interactions of naturally occurring activities. How language and interaction within specific contexts are used to constitute identity and how interaction order resulting from face-to-face interaction provides building blocks for larger formations that arise from such activities. Letter grading.

149S. Gender and Language across Communities. (4). Lecture, three hours; discussion, one hour. Requisite: course 33. Examination of how language practices contribute to expression of gender identities in different social groups and situations. Completion of 20 hours of service learning in community service program coordinated through Center for Community Action and Research. Active part is to work in organized service that is conducted in and meets needs of communities. Letter grading.

Social Anthropology


153P. Economic Anthropology. (4). Lecture, three hours. Requisite: course 9. Introduction to anthropological perspectives for interpretation of economic life and institutions. Economic facts to be placed in their larger social, political, and cultural contexts; examination of modes of production, distribution, and consumption of goods and services in their relation to social networks, power structures, and institutions of family, kinship, and class. P/NP or letter grading.


M155. Women’s Voices: Their Critique of Anthropology of Japan. (4). (Same as Gender Studies M155.) Lecture, three hours. Preparation: introductory sociocultural anthropology course. Anthropology of Japan has long viewed Japan as homogeneous whole. Restoration of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

M155Q. Women and Social Movements. (4). (Same as Gender Studies M155Q) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/reform), beginning with Russia and China and including Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women’s participation in social transformations and centrality of gender interests. P/NP or letter grading.

156. Anthropology of Religion. (4). Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religions through cross-cultural and diachronic perspective. Anthropology of various ways in which culture, and language in particular, influence not only educational processes and outcomes, but also very conceptions of what normal development processes and desirable educational outcomes are. Letter grading.


158. Hunting and Gathering Societies. (4). Lecture, three hours. Requisite: course 9. Survey of hunting and gathering societies. Examination of their distinctive features from both ecological and cultural viewpoints. Discussion of possibility of developing general frameworks for synthesizing these two viewpoints. Use of this synthesis to illustrate the role of hunting and gathering societies as understanding of complex societies. P/NP or letter grading.

M159O. Past People and Their Lessons for Our Own Future. (5). (Same as Geography M153 and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how other modern people are coping or failing to cope with similar issues. P/NP or letter grading.

159. Warfare and Conflict. (4). Lecture, three hours. Examination of conflict and violent confrontations as these have been treated in anthropological literature. Cross-cultural comparison of modern and pre-modern warfare, and large-scale conflicts. Letter grading.

M159P. Constructing Race. (4). (Same as African American Studies M159P and Asian American Studies M159P.) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

Applied Anthropology


M162. Language Endangerment and Linguistic Revitalization. (4). (Same as American Indian Studies M162.) Lecture, three hours; activity, one hour. Requisites: course 33, American Indian Studies M162. Examination of causes and consequences of current worldwide loss of linguistic diversity and revitalization of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize their languages. P/NP or letter grading.


167. Urban Anthropology. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for junior/senior social science majors. Introduction to modern industrial cities and urban life. Examination of notion 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. Explo-ration of ways in which class, gender, race, and geog-raphy shape or contest perspectives and priorities on urban issues. Overview of social and cultural anthro-pology of inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within framework of recent national integration, kinship, forms of marriage and status of women, reli-gion and social order in Hindu/Buddhist culture con-tact zone, and current problems of modernization. P/NP or letter grading.

175S. Japan. (4). Lecture, three hours. Overview of contemporary Japan, the Japanese society. General introduction, kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interpersonal relations, social deviance. P/NP or letter grading.

Middle East
176. Culture Area of Middle East. (4). Lecture, three hours. Study of Middle East has suggested many the-ories as to developmental history of humankind, evo-lution of human society, birth of monotheism, and or-gin 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. Letter grading.

Pacific
177. Cultures of Pacific. (4). Lecture, three hours. Four major culture areas of Australia, Melanesia, Poly-ne sia, and Micronesia featured within the context of prehistory, and language distribution of whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

Regional Cultures
179. Selected Topics in Regional Cultures. (4). Lec-ture, three hours. Study of selected topics in regional cultures. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

History, Theory, and Method


Special Studies


191HB. Field Methods. (4). Seminar, three hours. Limited to anthropology honors program students. Training of major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

191HC. Data Analysis. (4). Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropo-logy 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.


194. Research Group Seminars: Anthropology. (1). Seminar, one hour. Limited to undergraduate students who are part of research group or internship. Discuss-ion of research methods and techniques in dis-cipline or of research faculty members or students. May meet concurrently with graduate research sem-inar. May be repeated for credit with topic change. P/NP grading.

197. Individual Studies in Anthropology. (2 to 8). Tutorial, to be arranged. Limited to juniors/seniors. Indi-vidual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (e.g., paper or other product) re-quired. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Anthropology. (2 to 8). Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Indi-vidual contract required. P/NP or letter grading.

Graduate Courses
200. Conceptualizing Anthropological Research. (4). Seminar, three hours. Introduction to process of conceptualizing research projects, including formulation, theorizing research questions, and developing appropriate methodology to carry out research. Preparation of proposals and presentation to group for critique. S/U or letter grading.

M201A-M201B. Graduate Seminars: Archae-ology. (4-4). (Same as Archaeology M201A-M201B). Seminar, three hours. Course M201A is required of anthropology students in archaeology field. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in...
202. Biological Anthropology Colloquium. (4), Seminar, three hours. Selected topics on status of current biological anthropology. May be repeated for credit. S/U or letter grading.

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


203C. 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.

204. Core Seminar: Linguistic Anthropology. (4), Seminar, three hours. Theoretical and methodological foundations of study of language structure and language use from sociocultural perspective. Discussion of linguistic, philosophical, psychological, and anthropological contributions to understanding of verbal communication as social activity embedded in culture. S/U or letter grading.

Archaeology


CM212. 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 contributed to 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 CM110Q. S/U or letter grading.

211. Classification in Archaeology: Method and Theory. (4), Seminar, three hours. Limited to graduate anthropology and archaeology students. Discussion of issues that have guided arguments about how archaeological classification of artifacts should be conducted, with focus on ceramic classification and discovery of cultural types. Methods for implementing descriptive and interpretive classification illustrated with lithic and pottery examples. Review of relationship between classification, style, and function. S/U or letter grading.

212. Selected Laboratory Topics in Archaeology. (4), (Same as Archaeology M205A), Lecture, three 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: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. S/U or letter grading.

217. Introduction to Laboratory Training in Archaeology. (6), (Same as Archaeology M205B), Lecture, three hours; laboratory, two hours minimum. Advanced laboratory training for graduate students with extensive laboratory experience. Emphasis on 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.

214. Selected Topics in Prehistoric Civilizations of New World. (4), Lecture, three hours. Mesicoamerican 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 M262A), Lecture, 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, archaeology of language dispersal, cultural contact and nature of cultural “influence.” Letter grading.

217. Explorations in Prehistory, Southwest. (4), Seminar, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, and evolutionary theory. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

217A. Archaeology of Urbanism. (4), Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about material culture and space enable assessment of social dynamics as cities are constructed and lived in by variety of different economic, ethnic, social, and political groups. Letter grading.

Biological Anthropology

220. Current Problems in Biological Anthropology. (4), Seminar, three hours. Detailed examination of current research in biological anthropology (specific topics to be announced). Emphasis on nature of hypotheses and their testing in ongoing student and faculty research. May be repeated for credit. S/U or letter grading.


222. Graduate Core Seminar: Biological Anthropology in Review. (4), Seminar, three hours. Graduate core course in biological anthropology. Topics include evolutionary theory, behavior of nonhuman primates, hominid evolutionary history, and contemporary human variation. Letter grading.

Cultural Anthropology


233R. Anthropology and Media Theory. (4), Seminar, three hours. Limited to graduate students. Examination of theoretical assumptions and debates that animate visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which includes ethnographic, documentary, and feature films, as well as television programming. S/U or letter grading.

233T. Ethnographies of Information Technology. (4), Seminar, three hours. Emerging work on new information economy, with emphasis on ethnography. Exploring landscape of anthropological and material interactions from range of disciplines, including sociology, geography, urban studies, and management studies. S/U or letter grading.

237. Seminar: Psychocultural Studies and Medical Anthropology. (4), Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of work in child development and socialization, personality, psychological anthropology, deviance, learning, perception, cognition, and psychocultural perspectives on change. S/U or letter grading.

M234Q. Psychological Anthropology. (4). (Same as Psychiatry M272), Lecture, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and culture and psychiatry. Discussion of questions relating to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be repeated for credit. S/U or letter grading.

234T. Anthropological Perspectives on Human Medicine. (4), (Same as Psychiatry M272A), Lecture, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.


238. Native American Revitalization Movements. (4), (Same as History M260C), Lecture, two hours; discussion, one hour. Examination of revitalization movements among native peoples of North America (north of Mexico). Specific revitalization includes Handsome Lake, 1870 and 1890 Ghost Dances, and Peyote Religion. Letter grading.

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

Linguistic Anthropology

M241. Topics in Linguistic Anthropology. (4), (Same as Linguistics M246C), Lecture, three hours. Problems in relations of language, culture, and society. May be repeated for credit. S/U or letter grading.

M242. Ethnography of Communication. (4), (Same as Applied Linguistics M207), Lecture, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of communication to such disciplines as anthropology, linguistics, and sociology. Topical foci include style and strategy, speech variation, varieties of noncasual speech genres, languages and ethnicity, and nonverbal communication behaviors.

243A. 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 communicative conduct. Letter grading.
243P. Native American Languages and Cultures. (4). Lecture, three hours; seminar, two hours. Preparation: prior coursework in either anthropology, linguistics, or American Indian studies. Introduction and comparative analysis of sociocultural aspects of language use in Native North American speech communities. Specific topics include both micro- and macro-sociolinguistic issues. Micro-sociolinguistic topics are comprised of such issues as multilingualism, cultural differences regarding appropriate community behavior and interaction within speech communities (e.g., male and female speech, baby talk, ceremonial speech, etc.), and macro-sociolinguistic considerations include language use and its relationship to language change and language in American Indian education. Course is currently scheduled with course C144. S/U or letter grading.

247. Topics in Semantics and Pragmatics. (4). (Same as Applied Linguistics M266.) Seminar, four hours. Recommended preparation: three current courses in theoretical specializations in semantics and pragmatics. Topics vary from year-to-year and may include metaphor, theories of reference and denotation, honorifics, and deixis. May be repeated for credit with topic change. Letter grading.


Social Anthropology


Applied Anthropology

263P. Gender Systems. (4). (Same as Gender Studies M263P.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

263Q. Advanced Seminar: Medical Anthropology. (2 to 4). (Same as Community Health Sciences M244, Nursing M273, and Psychiatry M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Basis for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4). (Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: courses 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.


266N. Narrative and Times of Trouble. (4). Seminar, three hours. Recommended requisite: one course from 203A, 203B, 203C, 204, or M242. Exploration of how linguistic and psychological/medical anthropology inform each other in relation to narrative and times of trouble. Topics include narrative sense-making in response to illness and misfortune; phenomenology of time; narrative, healing, and experience; remembering through narrative; narrative subjectivity; and narrative selves in motion. Letter grading.


269R. Repatriation of Native American Human Remains and Cultural Objects. (4). Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws repatriating human remains and cultural objects to them. Examination of this phenomenon. Concurrently scheduled with course C169R. Letter grading.

Regional Cultures

271. Contemporary Problems in Africa. (4). Seminar, three hours. Problematic issues in Africa in light of classical anthropological literature and recent work by anthropologists and other fieldworkers in Africa, with cases from eastern and southern Africa. S/U or letter grading.

276. Japan in Age of Empire. (4). (Same as Asian M292 and History M286.) Seminar, three hours. Designed for graduate students. 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 the post-WWII, Occupation period of study of colonialism. S/U or letter grading.

History, Theory, and Method

262. 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.

284. Qualitative Research Methodology. (4). (Same as Community Health Sciences M218.) Seminar, three hours. S/U or letter grading. One-hour intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to healthcare. Letter grading.

284P. Anthropological Methods and Data Analysis. (4). Seminar, three hours. Limited to graduate students. Recommended preparation: research design coursework. Focus is on qualitative methods used in anthropological research and techniques for analysis of qualitative data. Particular methods depend on and are appropriate to research questions and designs students bring to class. S/U or letter grading.

285P. Selected Topics in Anthropological Archaeological Theory. (4). Seminar, three hours. Designed for graduate students. Variable topics course on important theoretical subjects in anthropological archaeology. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, power and hierarchy in intermediate societies, materialist/declarative exchange systems. May be repeated for credit. S/U or letter grading.


288. Relational Models Theory and Research Design. (4, Seminar, three hours. Relational models theory (RMT) poses that people in all cultures use combinations of just four relational models (RMs) to organize most aspects of most social coordination: community, exchange, matching, and market pricing. Exploration of how people use these RMs to motivate, generate, constitute, coordinate, judge, and sanction social interaction. RMT aims to account for what is universal and what varies across cultures, positing necessity for cultural complements that specify how and with whom each relational model operates. Readings may include presentations and research in social anthropology, sociolinguistics, social theory, semiotics, linguistics, development, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, sociology, family studies, management, marketing, and consumer psychology, economics, justice, public health, public policy, and international development. Letter grading.

291. Culture, Brain, and Development Forum. (1). (Same as Applied Linguistics M232, Education M286, Neuroscience M293, and Psychology M248.) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide graduate students preparation for current research in understanding complex relationship between culture, brain, and development. S/U grading.

293S. Culture, Brain, and Development. (4). (Same as Applied Linguistics M233, Education M286, Neuroscience M294, and Psychology M247.) Seminar, three hours. Designed for graduate students. Integration of knowledge across different disciplines to understand interrelations of culture, brain, and development, where development includes both human ontogeny and human phylogeny. S/U or letter grading.

294. Human Computer 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 multidisciplinary perspective. May be repeated for credit. S/U grading.


298S. Interdisciplinary Relationship Science. (4). (Same as Education M297, Psychology M296, and Sociology M297.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psy-
chology, and sociology. Focus on themes of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

297. Selected Topics in Anthropology. (2 to 4). Seminar, three hours. Designed for graduate students. Study of selected topics of anthropological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel 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. Preparation 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. Unit credit may be applied toward full-time equivalence but not toward nine-course requirement for M.A. 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.


599. Research for Ph.D. Dissertation. (2 to 12). Tutorial, to be arranged. Ph.D. dissertation research or writing. Students must have completed qualifying examinations and ordinarily take no other coursework. S/U grading.

APPLIED LINGUISTICS

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Earl J. Rand, Ph.D.
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John H. Schumann, Ed.D.

Adjunct Assistant Professors

Jisoo Kim, Ph.D.
Annelie M. Rugg, Ph.D.

Scope and Objectives

UCLA is a dynamic place to study applied linguistics, a discipline that investigates language with relevance to issues in the everyday world. Situated in discursive and interactive contexts, language is essential to all aspects of life from personal to social. Interdisciplinary in nature, applied linguistics sheds new light on the nature of language and language use. Faculty members, including affiliated members in the Anthropology, Asian Languages and Cultures, Chicana and Chicano Studies, Education, Linguistics, Psychology, and Sociology Departments whose participation reinforces the interdisciplinary nature of applied linguistics research, represent a wide range of expertise and experience in language-related research.

The Department of Applied Linguistics is at the forefront of research in the field of applied linguistics and offers programs leading to the Bachelor of Arts, Master of Arts, and Ph.D. degrees, as well as one undergraduate minor and a graduate certificate program.

The UCLA Academic Senate approved the establishment of the Department of Applied Linguistics, the discontinuance of the graduate degree and certificate programs, the Language Teaching minor, and African Languages B.A., and the transfer of the Applied Linguistics B.A. to the Department of Linguistics effective Fall Quarter 2014. Students currently enrolled in any of the programs may complete them under current requirements.

Undergraduate Study

African Languages B.A.

Preparation for the Major

Required: Linguistics 20, nine courses from African Languages 1A through 42C and 197 (six in one language and three in another).

Transfer Students

Transfer applicants to the African Languages 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 language and one year of one other language.

Applied Linguistics B.A.

The Applied Linguistics major involves both theory-research and practice. On the theory-research side, it provides students with the opportunity to investigate the links between language, culture, social organization, and learning. On the practical side, with focus on service learning, it engages students in the community, schools, and workplaces of our geographic setting. The major encourages students to reflect on their lives with regard to language use and to bring to the academic resources of their education on these reflections.

Students must have an overall grade-point average of 2.0 or better to enter the major. Each preparation course must be passed with an average grade of C or better and must be completed before enrolling in courses for the major. A 2.0 grade-point average in courses for the major is required.

Preparation for the Major

Required: Applied Linguistics 10 or 10W; two courses from 20, 30 (or 30W), 40 (or 40W), Anthropology 33, and Psychology 10; Linguistics 20; and completion of the equivalent of the sixth term of one foreign language.

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 term of work in German).

Transfer Students

Transfer applicants to the Applied Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of one foreign language, one introduction to linguistics course, one introduction to psychology course, one introduction to linguistic anthropology course, and one introduction to sociology course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm transferring.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: A minimum of 13 upper division courses, including three courses in an African language; African Languages, Linguistics 103; two courses from Film and Television 106C, French 121, Theater 102E, World Arts and Cultures 134, or one or more special 4-unit African Languages 197 tutorials focusing on literature in an African language; three courses from Ethnomusicology 136A, 136B, History 121A, 121B, 121C, 122A, 122B, 123A, 123B, 124A, 124B, Linguistics 110, 120A, 120B or 127, C140, M146, 170, Political Science 151A, 151B, 151C, Linguistics 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor) and completion of the sixth term in one of the following major African languages are strongly recommended: Afrikaans, Arabic, Dutch, French, German, Portuguese.
Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tchtm for up-to-date information regarding transfer selection for admission.

The Major

Applied Linguistics M121SL, M165SL, M172SL, and C175 serve as capstone courses. Courses designated as both service learning and capstone courses may be applied toward both the service learning and capstone requirements. Service learning and capstone courses may not be taken during the freshman or sophomore year. No more than two courses from 195, 197, 198, and 199 may be applied toward the major.

Honors Program
Honors in applied linguistics are awarded at graduation to those students who have completed all preparation courses and requirements for the major with an overall grade-point average of 3.5 or better and who have received a grade of A in Applied Linguistics 198 or 199.

Language Teaching Minor
The Language Teaching minor provides students with an overview of current pedagogical theories and practices in language teaching; the experience of observing the language acquisition process both in and out of the classroom; a supervised practicum experience in a variety of language classroom settings; and an opportunity to reflect on the interaction of theory and practice in language teaching.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 80 quarter units, and file a petition with the undergraduate adviser.

Required Lower Division Course (5 units): Linguistics 20 with a grade of C or better.

Required Upper Division Courses (32 units): Eight courses as follows: one from Applied Linguistics 101, 101W, or 102W; C110, C116, C118B; and a minimum of four elective courses from C111, C112, C113, C114, C115A, C117, C118A, C153, C155, C157, M161W, M165SL, English 113A, Indo-European Studies M150 (or Linguistics M150), Linguistics 130, C140, 175.

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.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/gradlibrary/pgmsqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Graduate Council of the UCLA Academic Senate voted to temporarily rescind the admissions suspension for the Applied Linguistics C.Phil. and Ph.D. degrees effective Fall Quarter 2013.

The Department of Applied Linguistics offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Applied Linguistics. A Teaching English as a Second/Foreign Language Certificate is also offered; however, admissions were suspended as of Spring Quarter 2010.

African Languages
Lower Division Courses
1A-1B-1C. Elementary Swahili. (4-4-4). Lecture, five hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Major language of East Africa, particularly Tanzania. P/NP or letter grading.

2A-2B-2C. Intermediate Swahili. (4-4-4). Lecture, four hours. For enforced requisite: course 1C. Course 2A is enforced requisite to 2C. P/NP or letter grading.

4. Conversational Swahili. (1). Seminar, one hour. Enforced requisite: courses 1A, 1B. Practice in Swahili conversation on topics of general interest, including East African current events, for Swahili students at intermediate level. May be repeated for credit. P/NP grading.

5. Building Careers through Knowledge of Africa. (1). Lecture, one hour. Guest lecturers, representing diverse careers such as academia, business, arts, nonprofits, and religious work, speak about study of Africa and careers they have pursued after studying about Africa in college and/or graduate school. P/NP grading.

1A-1B-1C. Elementary Zulu. (4-4-4). Lecture, five hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Major language of South Africa, particularly Tanzania. Reading, writing, oral, and aural skills at intermediate level. P/NP or letter grading.

5. Building Careers through Knowledge of Africa. (1). Lecture, one hour. Guest lecturers, representing diverse careers such as academia, business, arts, nonprofits, and religious work, speak about study of Africa and careers they have pursued after studying about Africa in college and/or graduate school. P/NP grading.

12A-12B-12C. Intermediate Yoruba. (4-4-4). Lecture, four hours. Enforced requisite: course 11C. Course 12A is enforced requisite to 12B, which is enforced requisite to 12C. P/NP or letter grading.

14A-14B-14C. Intermediate Tigrinya. (4-4-4). Seminar, four hours. Enforced requisite: course 55. Course 14A is enforced requisite to 14B, which is enforced requisite to 14C. Major language of Eritrea and Tigray, province of Ethiopia. Reading, writing, oral, and aural skills at intermediate level. P/NP or letter grading.


17. Intensive Elementary Zulu. (12). Lecture, 20 hours (eight weeks). Intensive instruction (equivalent to courses 7A, 7B, 7C) in Zulu, most widely spoken of the Nguni languages of South Africa, mutually intelligible with other members of this group. Letter grading.

18. Intensive Intermediate Zulu. (12). Lecture, 20 hours (eight weeks). Enforced requisite: course 7C or 17. Intensive instruction (equivalent to courses 8A, 8B, 8C) in Zulu, most widely spoken of the Nguni languages of South Africa, mutually intelligible with other members of this group. Letter grading.


27. Intensive Elementary Xhosa. (12). Seminar, 20 hours. Basic communication skills and intensive instruction in Xhosa, with emphasis on listening and speaking. Use of various instructional media, including textbook, CD-ROMS, interactive Web-based materials, and videos. P/NP or letter grading.

29. Intensive Elementary Igbo. (12). Seminar, 20 hours. Basic communication skills and intensive instruction in Igbo, with emphasis on listening and speaking. Use of various instructional media, including textbook and audio/video materials. P/NP or letter grading.

31A-31B-31C. Elementary Bambara. (4-4-4). Lecture, five hours. Course 31A is enforced requisite to 31B, which is enforced requisite to 31C. Major language of Mali, also widely spoken in adjacent parts of West Africa; includes Maninka (Malinke), Dyula, and other mutually intelligible dialects. P/NP or letter grading.

32A-32B-32C. Intermediate Bambara. (4-4-4). Lecture, four hours. Enforced requisite: course 31C. Course 32A is enforced requisite to 32B, which is enforced requisite to 32C. P/NP or letter grading.


41A-41B-41C. Elementary Hausa. (4-4-4). Lecture, five hours. Course 41A is enforced requisite to 41B, which is enforced requisite to 41C. Major language of northern Nigeria and adjacent areas. P/NP or letter grading.

42A-42B-42C. Intermediate Hausa. (4-4-4). Lecture, four hours. Enforced requisite: course 41C. Course 42A is enforced requisite to 42B, which is enforced requisite to 42C. P/NP or letter grading.


51A-51B-51C. Elementary Amharic. (4-4-4). Lecture, five hours (15 hours for intensive course). Course 51A is enforced requisite to 51B, which is enforced requisite to 51C. Major language of Ethiopia. P/NP (undergraduates), S/U (graduates), or letter grading.

52A-52B-52C. Intermediate Amharic. (4-4-4). Lecture, five hours (15 hours for intensive course). Enforced requisite: course 51C. Course 52A is enforced requisite to 52B, which is enforced requisite to 52C. P/NP (undergraduates), S/U (graduates), or letter grading.


61A-61B-61C. Elementary Wolof. (4-4-4). Lecture, five hours. Course 61A is enforced requisite to 61B, which is enforced requisite to 61C. Major language of Senegambia. P/NP or letter grading.

62A-62B-62C. Intermediate Wolof. (4-4-4). Lecture, four hours. Enforced requisite: course 61C. Course 62A is enforced requisite to 62B, which is enforced requisite to 62C. P/NP or letter grading.


96. Crash Course in Swahili for Volunteers. (2). Seminar, two hours. Preparation for students about to travel to East Africa for volunteer or other work experience. Students learn to interact with speakers of Swahili in authentic contexts by asking and answering questions. Reading of simple texts and understanding of short oral instructions and descriptions in standard Swahili. P/NP or letter grading.

97. Viewing, Thinking and Intermediate Studies in African Languages. (1 to 6). Seminar, five hours. Instruction at elementary or intermediate level, based on needs of students, in any language for which appropriate facilities are available. Those taught in past included Akan, Efik, Ewe, Fula, Igbo, Lingala, Luganda, and Xhosa. May be repeated for credit. Letter grading.

Upper Division Courses

103A-103B-103C. Advanced Swahili. (4-4-4). Lecture, four hours. Requisite: course 2C. Course 103A is requisite to 103B, which is requisite to 103C. Readings in Swahili literature and the contemporary press. Discussions mainly in Swahili. P/NP or letter grading.


123A-123B-123C. Advanced Yoruba. (4-4-4). Lecture, four hours. Requisite: course 12C. Course 123A is requisite to 123B, which is requisite to 123C. Readings in Yoruba literature and the contemporary press. Discussions mainly in Yoruba. P/NP or letter grading.

133A-133B-133C. Advanced Bambara. (4-4-4). Lecture, four hours. Requisite: course 32C. Course 133A is requisite to 133B, which is requisite to 133C. Readings in Bambara literature and the contemporary press. Discussions mainly in Bambara. P/NP or letter grading.

143A-143B-143C. Advanced Hausa. (4-4-4). Lecture, four hours. Requisite: course 42C. Course 143A is requisite to 143B, which is requisite to 143C. Readings in Hausa literature and the contemporary press. Discussions mainly in Hausa. P/NP or letter grading.

150A-150B. African Literature in English Translata. (4-4-4). Lecture, four hours. Narrative and didactic prose and poetry of sub-Saharan Africa and written prose and poetry of South Africa. P/NP or letter grading.

153A-153B-153C. Advanced Amharic. (4-4-4). Lecture, five hours (15 hours for intensive course). Requisite: course 52C. Course 153A is requisite to 153B, which is requisite to 153C. Readings in Amharic literature and the contemporary press. Discussions mainly in Amharic. P/NP (undergraduates), S/U (graduates), or letter grading.


171. Language in South Africa: Histories, Cultures, Politics. (4). Lecture, three hours. Recommended requisite: course 170A. Knowledge of African languages is not required. Introduction to South Africa centered around language, using variety of disciplinary perspectives as lenses to examine variated landscape of South African languages. What does South Africa’s multilingual past and present tell us about culture and politics? To what extent does language inform volatile debates about race, sexuality, economics, and healthcare? What of those debates matter? In keeping with multilingual dynamics of South African society, course is based on multiple forms of information and requires multiple levels of interaction. P/NP or letter grading.

172. Languages and Cultures of Nigeria. (4). Lecture, two hours; discussion, one hour. Recommended requisite: course 11A, 25, 29, or 41A. Knowledge of African languages is not required. Introduction to Nigeria and Nigeria’s cultural and linguistic diversity. How does language shape ethnic identities in Nigeria (one of Africa’s most multilingual nations) and Nigerian diaspora? Analysis of historical, cultural, political, and linguistic circumstances that shape the use of language in contemporary interactions. P/NP or letter grading.

173. Preparing to Study Abroad in Africa. (4). Lecture, three hours; discussion, one hour. Recommended preparation: one year of African language. Development of skills, perspectives, and practical knowledge about living and studying abroad, with particular reference to Africa and greater emphasis on those African countries with existing Education Abroad and Summer Travel Study relationships with UCLA (e.g., Ghana, Egypt, Senegal, South Africa, and Tanzania). May be repeated for credit. P/NP or letter grading.

187. Survey of African Languages. (4). Lecture, three hours; discussion, one hour. Recommended requisite: one year of one African language. Development of skills, perspectives, and practical knowledge about living and studying abroad, with particular reference to Africa and greater emphasis on those African countries with existing Education Abroad and Summer Travel Study relationships with UCLA. Exploration of other countries that may be of special interest to students. Readings, discussions, and written work on personal and national/cultural values and their role in how one views other cultures, culture shock and stages of cross-cultural adjustment, language-learning strategies, verbal and nonverbal patterns of communication, and African academic traditions, programs, and campus cultures. P/NP or letter grading.

197. Individual Studies in African Languages. (1 to 6). Tutorial, four hours. Limited to juniors/seniors. Individual intensive instruction at advanced level or supervised research, based on needs of individual students, in any language or group of languages for which appropriate facilities are available. 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

202A-202B-202C. Comparative Bantu. (4-4-4). Lecture, four hours. Requisites: Linguistics 110, 165A, 165B. Recommended: three quarter courses in one Bantu language selected from 1A through 8C. In-vestigations of grammatical hierarchy and the extent and external relationships of Bantu. S/U or letter grading.

596. Directed Studies. (1 to 8). Tutorial, to be arranged. Direct study of topics in Linguistics. Four units may be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

Applied Linguistics

Lower Division Courses

10. Language in Action: Perspectives from Applied Linguistics. (5). Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10W. Introduction to sociolinguistics, topics, approaches, research, and resources in interdisciplinary field of applied linguistics as it is practiced at UCLA. Series of presentations by various faculty members whose work is in those areas. Introduction to various ways language works in real life and how this can be described and studied in systematic ways; designed to teach students to write effectively. Letter grading.

10W. Language in Action: Perspectives from Applied Linguistics. (5). Lecture, three hours; discussion, two hours. Requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Introduction to rich variety of topics, approaches, research, and resources in interdisciplinary field of applied linguistics as it is practiced at UCLA. Series of presentations by various faculty members whose work is in those areas. Introduction to various ways language works in real life and how this can be described and studied in systematic ways; designed to teach students to write effectively. Satisfies Writing II requirement. Letter grading.

20. Ethical Issues in Language Assessment: Using Language Tests in Education and Society. (5). Lecture, four hours; discussion, one hour. Uses of language tests in education and society. Language tests have become pervasive part of education systems and society, being used for wide variety of purposes such as identifying English language learners in schools, making admissions decisions to universities, placing students into language programs, screening potential citizens, and selecting employees. But how useful are language tests for making these high-stakes decisions? By what means can we determine the usefulness of these tests and fairness of decisions that are made be evaluated? What are consequences, both beneficial and harmful, of using language tests for these purposes? Reading and discussion of selected articles that address these questions. Letter grading.

30. Language and Social Interaction. (5). Lecture, four hours. Not open for credit to students with credit for course 30W. Exploration of range of topics related to study of language and society, particularly how lan- guage affects social lives and how social organization affects use of language. Topics include different ap- proaches to study of language in society (theories and methodologies) and the relationship between language and identity (such as socioeconomic status, race, gender, and situational identity), and issues concern- ing language and culture (such as cross-cultural...
second language interaction. Examination of how cul-
ture, ethnicity, and ownership of language are made
relevant in everyday life. Discussion of second lan-
guage acquisition, sociolinguistic, and pedagogical set-
tings and examination of heritage language interac-
tion when relevant. Letter grading.

112SL. Teaching Reading in Second/Foreign/Heritage
Language through Service Learning, (5). Lecture,
four hours; fieldwork, four hours. Designed for
students with credit for course 212. P/NP or letter
grading.

Upper Division Courses

100. Discourse and Society, (4). Lecture, four hours;
discussion, two hours. Important contemporary per-
spectives for study of language in its social and cul-
tural matrix. Topics include computational organization,
narrative, repair and grammatical organization, lan-
guage in cultural settings, language socialization, and
language impairment and institutional discourse.
Focus on analysis of audio and video recordings of talk
in a variety of natural settings. P/NP or letter grading.

101. Introduction to Language Learning and Lan-
guage Teaching, (5). Lecture, four hours. Not open
for credit to students with credit for course 101W. Ex-
ploration of skills and conditions involved in suc-
scessful second and foreign language learning; appli-
cation of this knowledge in development of frame-
work for teaching second and foreign languages.
Letter grading.

101W. Introduction to Language Learning and Lan-
guage Teaching, (5). Lecture, four hours; discus-
sion, one hour. Enforced requisite: English Composi-
tion 3 or 3H or English as a Second Language 36.
Not open for credit to students with credit for course 101W. Ex-
ploration of skills and conditions involved in suc-
scessful second and foreign language learning; appli-
cation of this knowledge in development of frame-
work for teaching second and foreign languages.
Letter grading.

102W. Nature of Learning, (5). Lecture, four hours;
discussion, one hour. Enforced requisite: English Composi-
tion 3 or 3H or English as a Second Language 36.
Exploration of learning via examination of second
language acquisition. All normal children ac-
quire language of their family and community (i.e., first
language acquisition), and many, especially those
who aquire language of their family and community
in isolation, continue to acquire fluent second
language. Successful second language acquisition is
radically variable, and many learners, in spite of substantial opportunity and abil-
ity, achieve proficiencies that fall far below that of
native speakers. Focus on factors of emotion,
emotion and cognition and nature of aptitude and motiva-
tion in learning. Primary vehicle for investigation to be
autobiographies of second language learners.
Satisfies Writing II requirement. Letter grading.

110. Methodology for Second/Foreign/Heritage
Language Education, (4). Lecture, four hours. Req-
quisite: Linguistics 20. Survey of phonological
structure and practice in teaching second/foreign/heritage
languages, including (1) past and present methods used to teach
second/foreign/heritage languages, (2) current theory and
practice underlying skills-based instruction and
integrated approaches, (3) factors that affect second
language acquisition and learning, (4) development of
knowledge base in and rational basis for design, de-
velopment, implementation, and evaluation of second/
foreign/heritage language programs. Concurrently
scheduled with one credit course.

C111. Writing for Second/Foreign/Heritage Lan-
guage Education, (4). Lecture, four hours; fieldwork,
four hours. Designed to give overview of phonetic
features of North American English (NAE) that relate
to teaching of English as a second/first/heritage
language. Examination of (1) segmental and su-
prasegmental elements of NAE, (2) how English
sound system contrasts with sound systems of other
languages, (3) activities for teaching pronunciation,
and (4) current materials for teaching pronunciation
(textbooks, videotapes, computer software, Internet
resources). Students gain experience in teaching pro-
nunciation while providing valuable and meaningful
service to community partners who want help with
oral components of English as a second language.
P/NP or letter grading.

C114. Listening and Speaking for Second/Foreign/
Heritage Language Education, (4). Lecture, four hours.
Requisite: course 101W or C110. Survey of theoretical
and methodological issues related to second/foreign/heritage
language spoken discourse, including theoretical examination
of classroom materials and overview of methods of evalua-
tion of student performance. Concurrently
scheduled with course C214. P/NP or letter grading.

C115A. Media for Second/Foreign/Heritage Lan-
guage Education, (4). Lecture, four hours. Requisite:
course 101W or C110. Rationale and pedagogical ap-
plication for using media equipment and materials in
second/foreign/heritage language classroom. Training in
standard classroom media equipment operation, basic
materials preparation, and production tech-
niques, and review of published media materials, with
focus on their application to second/foreign/heritage
language instruction. Concurrently scheduled with
course C215A. P/NP or letter grading.

C115B. Computer-Enhanced Language Teaching
and Learning, (4). Seminar, four hours; fieldwork,
four hours. Requisite: course 101W or C110. De-
signing and conducting a computer-aided or computer-
ized current second/foreign/heritage language teaching
methods through application of computer technology.
Project-based seminar to encourage par-
ticipants to develop materials, either individually or
misunderstanding and language socialization). Empir-
ic and critical analysis of set of language data to be
carried out as part of course project. Letter grading.

30W. Language Interaction in Everyday Life and
Academia, (2). Lecture, four hours; discussion,
three hours; discussion, two hours. Enforced requi-
site: English Composition 3 or 3H or English as a
Second Language 36. Not open for credit to students
with credit for course 30W. Introduction to lan-
guage from the perspective of gender. Second or
related topics related to study of language and social interac-
tion in both mundane and professional settings, par-
ticularly how language affects social lives and how social
organization affects use of language. Examination of
research and examples in English and other languages
to explore nature of male and female “genderlects”
and gendered language, as reflected in lexic, lan-
guage behavior, and ownership of language, and
issues concerning language and culture (such as cross-cultural misunderstanding
and language socialization). Satisfies Writing II re-
quirement. Letter grading.

40. Language and Gender: Introduction to Gender
Differences and Stereotypes, (5). Lecture, four hours;
discussion, one hour. Not open for credit to students
with credit for course 40W. Introduction to language
from the perspective of gender. Second or related
topics related to study of language and social interac-
tion in both mundane and professional settings, par-
ticularly how language affects social lives and how social
organization affects use of language. Examination of
research and examples in English and other languages
to explore nature of male and female “genderlects”
and gendered language, as reflected in lexic, lan-
guage behavior, and ownership of language, and
issues concerning language and culture (such as cross-cultural misunderstanding
and language socialization). Satisfies Writing II re-
quirement. Letter grading.

80W. Language in Globalizing World: Second Lan-
guage Interaction in Everyday Life and Academia,
(5). Lecture, four hours; discussion, one hour. En-
forced requisite: English Composition 3 or 3H or
En-
lish as a Second Language 36. Not open for credit to
students with credit for course 80W. Introduction to lan-
guage and social interaction, with specific emphasis on
second language communication. Second or foreign
language considered highly important world-
wide in personal, intellectual, and professional life. As
important domain of research, second language inter-
action is widely studied by applied linguists, conver-
sation analysts, and linguistic anthropologists with
varying interests. Study of various interactional phe-
nomena observed in second language communica-
tion. Discussion of relevant linguistic concepts such as
turn-taking and repair as resources for analyzing

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as turn-taking and repair as resources for analyzing

sation analysts, and linguistic anthropologists with
specific emphasis on second language communication. Second or foreign
language is considered highly important world-
wide in personal, intellectual, and professional life. As
important domain of research, second language inter-
action is widely studied by applied linguists, conver-
sation analysts, and linguistic anthropologists with
varying interests. Study of various interactional phe-
nomena observed in second language communica-
tion. Discussion of relevant linguistic concepts such as
turn-taking and repair as resources for analyzing


C117SL. Teaching Literature in Language Education through Service Learning. (5). Lecture, four hours; fieldwork, four hours. Development of rationale for selecting, evaluating, and using literary works in second language or ESL/EFL settings. Students tutor foreign language and ESL students at selected service learning sites, analyze and critique background knowledge, and analyze, and discuss ways in which they used skills and ideas presented in class and readings. Students share observations with and make suggestions to others. P/NP or letter grading.

C118A. Fundamentals of Second/Foreign/Heritage Language Teaching. (4). Seminar, four hours. Requisite: course 101W or C110. Designed for students interested in microcomponents of effective second/foreign language teaching. In-depth examination of decision-making process underlying planning and implementation of lessons. Provides structured environment in which to hone fundamental teaching skills such as conducting warm-up activities, managing student dynamics, eliciting student contributions, correcting errors, sequencing lesson components, and transitioning between them. Concurrently scheduled with course C218B. P/NP or letter grading.

C118B. Second/Foreign/Heritage Language Teaching Practicum. (4). Seminar, three hours; fieldwork, four hours. Requisites: courses 101W or C110, C116. Theoretical and practical concerns regarding second/foreign language teaching, with emphasis on fieldwork experiences and grounding of solutions to problems faced in current research in language education and language pedagogy. Concurrently scheduled with course C218B. P/NP or letter grading.


C119A. Seminar, four hours; C119B. Seminar, two hours.

M121SL. Oral History: Latino New Immigrant Youth. (5). (Formerly numbered 121SL.) (Same as Chicana and Chicano Studies M121SL and Spanish M121SSL.) Seminar; three hours; tutoring, two and one half hours. Theory, methodology, and practice of oral history, together with background information on Latino immigration to U.S. and development of oral histories of Latino immigrants. Letter grading.


M125. Language Socialization. (4, Same as Anthropology M149E.) Seminar, four hours. Exploration of process of socialization through language, and socialization to use language across lifespan, across communities, and across different ethnic and socioeconomic groups. Examination of ways in which verbal interaction between novices and experts is structured linguistically and culturally. Concurrently scheduled with course C215. Letter grading.


CM128. Teaching and Learning of Heritage Languages. (4, Same as Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) and to heritage language (HL) instruction. Lectures on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs; particular HL groups most represented among HLLs; institutional history, and conceptual and attitudinal, impact 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 CM228. P/NP or letter grading.

M131. Alternative Approaches to Language Acquisition. (4, Same as Disability Studies M131.) Seminar, four hours. Examination of everyday experience of language delay, disorder, difference, and difficulty from disability studies perspective. Presentation of key concepts and terminology of culture, disability, and language use. Discussions and assignments critically evaluate findings on language acquisition by asking questions from disability studies about inclusion and individual experience, individually constructed experience, and power. P/NP or letter grading.


M144. Fundamentals of Translation and Interpretation. (5, Same as Linguistics M144.) Lecture, four hours; discussion, one hour. Requisite: knowledge of English and at least one other language. Enforced requisite: Linguistics 20. Examination of translation as both interpretative, and social aspects of translating and interpreting between two languages or dialects. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.


M165SL. Taking It to Street: Spanish in Community. (5, Same as Chicana and Chicano Studies M170SL, and Spanish M172SSL Seminar; three hours; fieldwork, 10 hours. Enforced requisite: Spanish 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

170. Field Methods in Discourse and Society. (4). Seminar, four hours. Ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, involving student-initiated fieldwork in community settings. Emphasis on hands-on activities within theoretical frameworks that consider language as social and cultural practice. Letter grading.

M172SL. Latinos, Linguistics, and Literacy. (5, Same as Chicana and Chicano Studies M170SL and Spanish M172SSL Seminar; four hours; field project, four to six hours. Recommended requisite: Spanish 100A. In-depth study of various topics related to literacy, including different definitions of literacy, programs for adult pre-literate, literacy and gender, approaches to literacy (whole language, phonics, Freire’s liberation pedagogy, theory of writing as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

C175. Critical Approaches to Multilingualism. (5, Seminar, four hours. Examination of how identities and social relationships are defined through language in multilingual societies, with focus on how they have been produced, sustained, and renegotiated in societ-ies that have experienced colonialism. Assessment of effects of colonial and postcolonial language poli-tics (and ideologies) in verbal arts, media, ed-ucation, and government, and everyday conversation. How might critical applied linguists in general, and postcolonial theory in particular, help to better under-
stand politics of language use in multilingual contexts? Concurrently scheduled with course C275. P/NP or letter grading.

M179. Language Policies and Politics in U.S.: Comparative History. (4). (Same as Chicana and Chicano Studies M179.) Lecture, four hours. Historical survey of language policies and language groups in U.S. as context to understanding social, legal, and political constraints on bilingualism. Review of federal, state, and institutional language policies and politics, with focus on schooling, administration of government, justice, and workplace. P/NP or letter grading.

195. Community Internships in Applied Linguistics and TESL. (5), Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

197. Individual Studies in Applied Linguistics. (2 to 4), Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study for undergraduate students who desire individualized specialized treatment of issues in applied linguistics beyond those covered in current course offerings. Scheduled meetings to be arranged between faculty member and student. As signed reading and evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate student adviser. Letter grading.

198. Honors Research in Applied Linguistics. (2 to 4), Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.


Graduate Courses


C202. Foundations of Language Acquisition. (4), Seminar, four hours. Requisite: Linguistics 20. Introduction to theoretical and empirical research in language acquisition, with emphasis on language acquisition from psychological, sociolinguistic, and philosophical perspectives. Linguistic nature of learners, interlanguage systems, and underlying cognitive mechanisms posited to explain them, as well as various social, affective, cognitive, and neurobiological factors that affect ultimate success of learner. Concurrently scheduled with course C155. Letter grading.


M207. Ethnography of Communication. (4). (Same as Anthropology M204Z.) Lecture, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments including relationship of ethnography of 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 intercultural communication behavior. S/U or letter grading.

208. Foundations of Discourse Analysis. (4), Seminar, four hours. Survey course to introduce basic tenets of discourse analysis, including discourse analysis and syntax, process and understood discourse, conversational analysis, analysis of speech events, unequal power discourse, and analysis of classroom discourse. Letter grading.


C210. Methodology for Second/Foreign/Heritage Language Education. (4), Lecture, four hours. Requisites: course C202, Linguistics 20. Survey of theory and practice in teaching second/foreign/heritage language programs, including (1) past and present methods used to teach second/foreign/heritage languages, (2) current theory, and practice underlying skills-based instruction and integrated approaches, (3) factors that affect second language acquisition and learning. Development of knowledge base in and rational basis for design, development, and evaluation of second/foreign/heritage language programs. Concurrently scheduled with course C110. S/U or letter grading.

C211. Writing for Second/Foreign/Heritage Language Education. (4), Lecture, four hours. Requisite: course 1011W or C110. Survey of theoretical and methodological issues related to second/foreign/heritage language written discourse and composition for second/foreign/heritage language learners. Concurrently scheduled with course C111. Additional assignments required of graduate students. S/U or letter grading.


C215B. Computer-Enhanced Language Teaching and Learning. (4), Seminar, four hours; fieldwork, four hours. Requisite: course C210. Designed for students interested in computer-enhanced language learning in second/foreign/heritage language environments. Web-based teaching (basics of creating and maintaining class websites), designing computer-enhanced teaching materials (e.g., PowerPoint presentations), managing classroom data (e.g., Excel grade calculation), and creating electronic teaching portfolios, with focus on pedagogical rationale for classroom instruction and on professionalizing current second/foreign/heritage language teaching methods through application of computer technology. Project-based seminar to encourage participants to develop materials, either individually or collaboratively, for their current or intended teaching settings/populations. Concurrently scheduled with course C115B. Letter grading.


C218A. Fundamentals of Second/Foreign/Heritage Language Teaching. (4), Seminar, four hours; fieldwork, four hours. Requisites: courses C210, C216. Designed for students interested in microcomponents of effective second/foreign/heritage language teaching. In-depth examination of decision-making process underlying planning and implementation of lessons. Provides structured environment in which to hone fundamental teaching skills such as conducting warm-up activities, managing student dynamics, eliciting student contributions, correcting errors, sequencing lesson components, and transitioning between them. Concurrently scheduled with course C118A. S/U or letter grading.

C218B. Second/Foreign/Heritage Language Teaching Practicum. (4), Seminar; three hours; fieldwork, four hours. Requisites: courses C210, C216. Theoretical and practical concerns regarding second/foreign/heritage language teaching, with emphasis on field work experiences and grounding of students to problems facing them in current research in second/foreign/heritage language pedagogy. Concurrently scheduled with course C118B. S/U or letter grading.


222. Discourse-Centered Language Learning. (4). Seminar, four hours. Requisite: course C202. Case-study and project-based research seminar on classroom language learning with authentic discourse input (usually in form of video and audio recordings of natural spoken discourse). Development of theoretical and technical tools for determining what can be learned from such recordings and how this learning might be facilitated, based on current second language research. Letter grading.

223. Topics in Psycholinguistics. (4). Seminar, four hours. Requisite: course C202. Detailed examination of specialized topics in psycholinguistics. Topics vary from year to year and may include language and cognition, and cognitive processes of evaluating learning theories and their influence on language teaching. May be repeated for credit with topic change. Letter grading.


M225A-M225B. Seminars: Corpus Linguistics. (4-6). (Same as Asian M222A-M222B.) Seminar, three hours. Construction and exploitation of computerized language corpora for studying issues 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 (M225A) and S/U or letter grading.

CM228. Teaching and Learning of Heritage Languages. (4). (Same as Slavic CM214.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Discussion of the differences between HLs and HLLs regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for HL instruction; construction of HL-KL classrooms. Action research component included. Concurrently scheduled with course CM128. S/U or letter grading.

229. Current Issues in Language Acquisition. (4). Seminar, four hours. Requisite: course C202. Designed to explore current issues in language acquisition from both theoretical and applied research perspectives and to provide actual experience in addressing current issues. Specific topics vary according to trends in field. May be repeated for credit with topic change. Letter grading.

230. Advanced Seminar: Interlanguage Analysis. (4). Seminar, four hours. Requisite: course C202. Analysis of interlanguage from various points of view (e.g., topic-comment structure, tense, aspect, modality, thematic structure of utterances), with aim of understanding how interlanguage is organized. Original research projects. May be repeated for credit with topic change. Letter grading.

231. Crosslinguistic Topics in Language Acquisition. (4). Seminar, four hours. Requisite: course 220. Advanced seminar on language acquisition in which one particular linguistics topic (e.g., development of tense, aspect, mood), agreement) is pursued from crosslinguistic and cross-disciplinary perspectives. Focus on language-specific versus universal (i.e., crosslinguistically valid) mechanisms of language development. May be repeated for credit with topic change. Letter grading.

M232. Culture, Brain, and Development Forum. (1). Same as Anthropology M293, Education M285, Neuroscience M293, and Psychology M248.) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding complex relationship between culture, brain, and development. S/U grading.

M233. Culture, Brain, and Development. (4). Same as Anthropology M293, Education M285, Neuroscience M293, and Psychology M248.) Seminar, three hours. Designed for graduate students. Integration of knowledge across different disciplines to understand interrelationships between culture, brain, and development, where development includes both human ontogeny and human phylogeny. S/U or letter grading.

238. Neurobiology of Language and Learning Research Seminar. (4-8). Seminar, four hours; field work/research, eight hours. Research in neurobiology of language and learning, with focus on critical reading of relevant publications. Students must work toward specific program-relevant product, such as thesis, dissertation proposal, qualifying paper, dissertation research paper, or grant proposal. May be repeated for credit with topic change. S/U or letter grading.


242. Experimental Design and Statistics for Applied Linguistics. (4). Seminar, four hours. Requisite: course C204. Specialized topics of interest to graduate students in applied linguistics, with focus on design and interpretation of research projects in field. Exploration of issues in both qualitative and quantitative study design, interpretation of findings, and presentation of results. Emphasis varies according to current theoretical methodological trends in field. Project required. Letter grading.

249. Current Issues in Language Assessment. (4). Seminar, four hours. Requisite: course C204. Designed to explore current issues in language assessment from both theoretical and practical perspectives and to provide actual experience in addressing current issues. Specific topics vary according to trends in field. May be repeated for credit with topic change. S/U or letter grading.

250. Advanced Seminar: Language Assessment. (4). Seminar, four hours. Requisite: course C204. Designed to cover application of technical issues such as reliability, validation, criterion-referenced assessment, generalizability theory, item-response theory, or program evaluation to language assessment in depth. Specific topics vary. Project required. May be repeated for credit with topic change. S/U or letter grading.

258. Assessment Laboratory. (4). Laboratory, four hours. Collaborative coursework, with focus on specific theoretical and applied issues in development of innovative language assessment procedures for use in different settings. Determined by research being conducted by working group in language assessment. Activities include designing and developing measurement instruments, gathering and analyzing data, and interpreting study results. May be repeated for credit. S/U or letter grading.

M262. Topics in Communicative, Cognitive, and Functional Approaches to Linguistic Analysis. (4). (Same as German M262.) Seminar, three hours. Requisite: German C142 or C238. Readings, discussions, analyses, and validation procedures within sign-based linguistics, cognitive grammar, and discourse-functional approaches to language. Consideration of impact of grammaticalization theory on various non-formal approaches to synchronic linguistics. Discussion of work by Connt-Morava, Diver, Garcia, Goldberg, Jaensch, Lakoff, Langacker, and Verhagen, as well as Bybee, Traugott, and others. S/U or letter grading.

263. Crosslinguistic Topics in Functional Grammar II: Typology. (4). Seminar, four hours. Survey of particular linguistic area from typological perspective within functional grammar framework (e.g., tense/ mood/aspect, nominal reference, word order). May be repeated for credit with topic change. S/U or letter grading.


265. Topics in Functional Grammar. (4). Seminar, four hours. Requisite: course C201. Specialized topics in functional grammar of interest to graduate students in applied linguistics. Emphasis varies according to current topics of theoretical import in field, such as voice, nominal reference, and word order. May be repeated for credit with topic change. Letter grading.

M266. Topics in Semantics and Pragmatics. (4). (Same as Anthropology M247.) Seminar, four hours. Requisite: course C201. 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 topic change. Letter grading.

267. Talk and Body. (4). Seminar, four hours. Requisite: course M206 or M207 or 208. Investigation of organization of language and embodied action within human interaction. Use of both audio and video recordings of human interaction in variety of natural settings to examine range of phenomena, including ways in which processes of interaction between speakers and hearers are consequential for detailed organization of emerging talk, projection, gaze, gesture, participation frameworks, narrative as embodied multiparty activity, integration of semiotic structure in environments with organizations, and organization of aphasia in discourse. Student presentation of relevant data in seminar format. Letter grading.

268. Crosslinguistic Research Laboratory. (4). Laboratory, four hours. Advanced procedures in data analysis for crosslinguistic research, including critical reading of relevant publications. Students must work toward specific program-relevant product, such as thesis, dissertation proposal, qualifying paper, dissertation research paper or grant proposal. May be repeated for credit. S/U or letter grading.

according to current topics of theoretical and prac-
tical concern in field. May be repeated for credit with
topic change. Letter grading.

M270A. Ethnographic Methods in Language, Inter-
action, and Culture I, (4). (Same as Anthropology
M249A.) Seminar, three hours. Requisite: course
M207 or Sociology 244A. Ethnographic approaches
to recording and analyzing communicative events
and practices in their sociocultural context, involving stu-
dent-initiated fieldwork in community setting. Em-
phasis on hands-on activities within theoretical frame-
works that consider language, culture, and social and
cultural practice. Devoted to skills related to collecting so-
cially and culturally meaningful data. Letter grading.

271. Advanced Seminar: Cohesion Analysis of En-
GLISH STRUCTURE. (4). Seminar, four hours. Reque-
site: course C216. Investigation in depth of selected lin-
guistic features of oral and written texts that go be-
yond sentence level and thus signal cohesion. Study of
structures to determine their function in variety of
English texts representing several discourse types.
Letter grading.

274. Advanced Seminar: Contextual Analysis of
English texts representing several discourse types.
Letter grading.

275. Critical Approaches to Multilingualism. (5).
Seminar, four hours. Examination of how identities
and social relationships are defined through language
in multilingual societies, with focus on how they have
been distributed in the everyday conversation
and/or structures in oral and written texts to deter-
mine when and why they occur. Beginning with fre-
cquency and distribution of form(s), exploration of
meaning and function of form(s), Letter grading.

C275. Critical Applied Linguistics Working Group. (1
to 4). Seminar, four hours. Designed for Applied Linguis-
tics M.A., and Ph.D. students. Collaborative exploration
and discussion of current research and literature on
critical approaches to applied linguistics, including
critical discourse analysis. Development of large-
scale research project (M.A. thesis, QP, or Ph.D. dis-
sertation), conducting of review of current research,
and presentation of work in progress to receive crit-
ical feedback from class participants. May be re-
peated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4). Sem-
inar, to be arranged. Preparation: apprentice per-
sion. Employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA.
May be repeated for credit. S/U grading.

Seminar/student presentations, to be arranged. M.A.
candidates present and defend results of their thesis
research. Required of all candidates but may not be
applied toward M.A. degree requirements. Candi-
dates for Ph.D. in Applied Linguistics may also use
this course to report on their dissertations. S/U
grading.

495. Training and Supervision of Teaching Assis-
tants. (2). Seminar, two or more hours. Required of all
teaching assistants. Orientation, preparation, and su-
 pervision of teaching assistants. Various topics, in-
cluding effective teaching methods and strategies.
May not be applied toward any degree requirements.
S/U grading.

501. Cooperative Program. (2 to 8). Tutorial, to be
arranged. Preparation: consent of UCLA graduate ad-
viser and graduate dean, and host campus instructor,
depending upon departmental cooperation. May be
used to record enrollment of UCLA students in courses
taken under cooperative arrangements with USC. S/U
grading.

596. Directed Individual Study. (2 to 12). Tutorial,
to be arranged. Independent study in one area of applied
linguistics. May not be applied toward M.A. course
requirements. Up to 8 units may be applied toward Ph.D. course
requirements. May be repeated for credit. S/U or letter
grading.

597. Preparation for Ph.D. Candidacy Examination.
(4 to 8). Tutorial, to be arranged. Preparation: com-
pletion of at least six courses of 32-unit requirement
for Ph.D. May not be applied toward 32-unit require-
ment. May be repeated for credit. S/U grading.

598. M.A. Research and Thesis Preparation. (4 to
8). Tutorial, to be arranged. Limited to graduate stu-
dents. Survey of research needs and thesis prepara-
tion. Includes optional sections of experiments in
and statistical methods in Fall Quarter. Credit (4 units)
toward degree is allowed only once, but all M.A. can-
didates must enroll in course each term they are reg-
kistered and engaged in thesis preparation. S/U
grading.

599. Research for and Preparation of Ph.D. Disser-
tation. (4 to 16). Tutorial, to be arranged. Preparation:
advancement to Ph.D. candidacy. Required of all
Ph.D. candidates each term they are registered and
engaged in dissertation preparation. May be repeated
for credit but may not be applied toward Ph.D. course
requirements. S/U grading.

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Faculty Committee
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Cultures)
Richard G. Lesure, Ph.D. (Anthropology)
John K. Papadopoulos, Ph.D. (Classical
Philosophy)
Lothar von Falkenhausen, Ph.D. (Art History)

Scope and Objectives
The interdisciplinary Archaeology Program offers
M.A. and Ph.D. degrees in Archaeology. It brings
together interests and specialties repre-

tended by those departments offering courses in
archaeology, as well as others offering
courses relevant to archaeology.

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 ar-
chaology 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. Appli-
cations are especially encouraged from stu-
dents whose interests may form bridges with
disciplines and departments not offering ar-
chaology (e.g., botany, chemistry, geology,
mathematics, statistics, and zoology). There
are opportunities for participation in a variety of
field, laboratory, and computer studies.

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
Division website, http://grad.ucla.edu/gasasa/
lbrary/pgmintro.htm. In many cases, more
detailed guidelines may be outlined in an-
nouncements, other publications, and websites
of the schools, departments, and programs.

Graduate Degrees
The Archaeology Program offers Master of Arts
(M.A.), Candidate in Philosophy (C.Phil.), and
Doctor of Philosophy (Ph.D.) degrees in Ar-
chaology but does not encourage applicants
who seek only an M.A. degree.
Archaeology

Lower Division Course

30. Science in Archaeology. (4). (Formerly numbered Ancient Near East 30.) 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 other disciplines, to enable students not only to obtain new scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zooarchaeological or paleoenvironmental research offers point of departure for instructors as well as motivation to students. P/NP or letter grading.

Upper Division Courses


C120. Special Topics in Archaeology. (2 or 4). Lecture, three hours. Designed for juniors/seniors. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has P/NP grading.

C159. Fieldwork in Archaeology. (2 to 12). Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C259. P/NP or letter grading.

C160. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6). Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C280. Letter grading.

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 archaeological social sciences (M201A) and humanities (M201B). Compulsory core seminars provide students with foundation in breadth of knowledge required of professional archaeologists. Archaeological historiography, survey of world archaeology, and archaeological technique Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretative strategies. May be repeated for credit with consent of adviser. S/U or letter grading.

M201C. Archæological Research Design. (4). (Same as Ancient Near East M201.) Seminar, three hours. Requisites: courses M201A, M201B. How to design archaeological projects in preparation for M.A. thesis or Ph.D. phase. Students do exploratory research to select subject, then write research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and meet weekly on research design. 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.

M205A. Selected Laboratory Topics in Archaeology. (4). (Same as Anthropology M212S.) Lecture, three 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 analysis, paleoethnobotany, ceramic analysis, rock art, laboratory experience with collections and data. May be repeated for credit with topic change. S/U or letter grading.

M205B. Intensive Laboratory Training in Archaeology. (4). (Same as Anthropology M212T.) Lecture, three hours; laboratory, two hours minimum. Advanced laboratory training for graduate students with extended laboratory hours. Special laboratory-based topics, including but not limited to lithic analysis, ceramic analysis, zooarchaeology, and paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.


C220. Special Topics in Archaeology. (2 or 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 consent of adviser. Concurrently scheduled with course C120. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

C259. Fieldwork in Archaeology. (2 to 12). Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C159. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4). (Same as Ancient Near East M265.) Lecture, two hours. Theoretical understanding of depositional processes (“laws”) which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in literature, with specific test cases from actual excavation and site reports. Coverage of theoretical implications of such disciplines as surveying and peeling with honors approval. Concurrently scheduled with course C259. S/U or letter grading.

M260. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6). Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of 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 C180. Letter grading.

051. Cooperative Program. (2 to 8). Tutorial, to be arranged. Preparation; consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Individual Studies for Graduate Students. (2 to 12). Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.


ARCHITECTURE AND URBAN DESIGN

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Professors

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Diane G. Favo, Ph.D.

Craig E. Hodgetts, M.Arch.

Sylvia Lavin, Ph.D.

Greg S. Lynn, M.Arch.

Mark Mack, M.Arch.

Tom Hayne, M.Arch.

Ben J. Refaie, M.Arch.

Professors Emeriti

Marvin Adelson, Ph.D.

Samuel Aronoi, Ph.D.

Baruch Givoni, Ph.D.

Thomas S. Hines, Ph.D.

F. Eugene Kupper, M.Arch.

Jung Lang, Dipl.Arch.

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Jason K. Payne, M.Arch.
Heather L. Robere, M.Arch.

Adjunct Professor
Alan Locke, M.Sc.

Adjunct Associate Professors
Roger Sherman, M.Arch.
Kivi S. Sotamaa, M.Arch.

Adjunct Assistant Professor
Georgina Huljich, M.Arch.

Scope and Objectives
The Department of Architecture and Urban Design at UCLA offers a Bachelor of Arts degree in Architectural Studies and four graduate degree programs tailored to the needs of different groups of students: M.Arch. I, M.Arch. II, M.A., and Ph.D.

The B.A. in Architectural Studies is a two-year program, with focus on the built environment. The curriculum visualizes architecture as a cultural, creative, and technical practice and a discipline with direct social impact. Within the context of a liberal arts education, a finely balanced set of architecture and urban design courses, ranging from the history and theory of design to contemporary building technologies, provides students with a diverse foundation of knowledge in the field of architecture and prepares them for graduate school and/or careers in a wide range of fields.

M.Arch. I is a three-year first professional degree program accredited by the National Architectural Accrediting Board (NAAB). It does not assume any prior background in architecture. Students who do have some prior architecture background (e.g., a four-year undergraduate degree) may also enter the program and may petition to waive certain required courses and substitute more advanced electives in their place. M.Arch. I graduates normally pursue professional careers in architectural practice.

M.Arch. II is an advanced self-supporting professional degree program for students who already hold a first professional degree in architecture. It provides opportunities for intensive concentration in a variety of areas of professional specialization.

The M.A. and Ph.D. degree programs provide opportunities to pursue research and scholarship in the field of architecture. Graduates typically pursue academic or applied research and consulting careers.

In the U.S. most state registration boards require a degree from an accredited professional degree program as a requisite for licensure. NAAB, the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: Bachelor of Architecture and Master of Architecture.

A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established standards. Master's degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree which, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

Undergraduate Study
Architectural Studies B.A.

Admission
Students are admitted for Fall Quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in Fall Quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the Preparation for the Major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the Preparation for the Major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. Applications are available in the department office to regular and UCLA students during the previous Fall Quarter. For further information, consult the undergraduate adviser.

Preparation for the Major

The Major
Required: Architecture and Urban Design 121, 122, 123, 131, 132, 133, 141, 142, 143.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Architecture and Urban Design offers Master of Architecture I (M.Arch. I) and Master of Architecture II (M.Arch. II) degrees, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Architecture. A concurrent degree program (Architecture M.Arch. I/Urban Planning M.U.R.P) and a Graduate Certificate in Urban Humanities are also offered.

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

2. History of Architecture and Urban Design: Prehistory to Mannerism. (5). Lecture, three hours; discussion, one hour; outside study, 11 hours. Development of architecture and urban design from pre-history to 1600, constructing critical positions within which implications of terms history, architecture, city, and culture can be explored. Focus on examples from Europe and Mediterranean. Scope and periodic exploration of world context. P/NP or letter grading.

3. History of Architecture and Urban Design: Baroque to Contemporary Moment. (5). Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of role of built environment in social, cultural, and political life. How buildings are constructed, what they mean, effects they have on world, and ways they imagine new futures and shape private and public life. Focus on series of contemporary case studies for what each reveals about new possibilities for shaping world in which we live, with emphasis on how architecture extends to cities, roads, books, and films. 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.

Upper Division Courses
101. Introduction to Representation. (2). Studio, four hours; outside study, two hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Offered in summer only. Letter grading.

102. Architecture and Urban Design. (6). Studio, 18 hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to basic architectural design principles and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for designing 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 designing 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.

122. Studio II. (6). Studio, eight hours; outside study, 10 hours. Enforced requisite: course 121. Limited to Architectural Studies majors. Issues of representation, domesticity, and program. Architectural precedents and principles of spatial organization. Relationship of
architectural form to human body and role of architectural space in choreography of human activity. Understanding and application of knowledge of architectural ornamentics, structure, and measurement. Letter grading.

132. Studio III. (6). Studio, eight hours; outside study, 10 hours. Enforced requisites: courses 121, 122. Limited to Architecture majors. Introduction to disciplinary issues, techniques, and organizations of landscape and how those can influence design of building and site. Development of material and temporary oral and visual representation techniques. Letter grading.

133. Modernism and Metropolis. (5). Lecture, three hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to emergence of contemporary metropolis through series of comparative urban explorations that begin in Los Angeles and extend to engage range of cities, including key examples from Asia to South America. Modern project can be seen in myriad forms across globe, so that city and suburb, taken together, exist in complex commingling of aesthetic, political, spatial, economic, technological, 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 worlds in bimodal and orthographic and axonometric projection. Basic techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Letter grading.

142. Technology II: Building Materials and Methods. (5). Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to construction systems and materials in relation to design, such as framed, bearing wall, or hybrid systems. Graphic conventions and organization of construction documents. Letter grading.

143. Technology III: Digital Technology. (5). Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communication. Basic representation methods and tools and introduction to additional concepts required to dynamically interact with any digital design. May be repeated for credit with consent of adviser. S/U or letter grading.

149. Directed Research or Senior Project in Architecture and Urban Design. (2 to 4). Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NT or letter grading.

Graduate Courses

M201. Theories of Architecture. (4). (Same as Architecture M201.) Lecture, three hours. Exploration of conceptual and theoretical ideas that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Letter grading.

220. Introduction to Computers. (2). Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts, skills, and theoretical aspects of computer-aided architecture design microcomputer skills. Applications selected are commonly found in professional offices. Two- and three-dimensional representation (i.e., painting, drafting, multimedia, hypermedia, and modeling). Letter grading.

226C. Computer Visualization. (4). Lecture, three hours. Designed for graduate students. Concept and technique of computer visualization, including realistic rendering and animation. Letter grading.

M227A. Programming Computer Applications in Architecture and Urban Design. (4). (Same as Design | Media Arts M243.) Lecture, three hours; outside study, nine hours. Introduction to logic of computer programming through experience in computer graphics programming. Investigation of both procedural and design-oriented approaches to programming. May be repeated for credit with consent of adviser. S/U or letter grading.

M227B. Introduction to Geometric Modeling. (4). (Same as Design | Media Arts M242.) Lecture, three hours; outside study, nine hours. Enforced requisite: course M227A or knowledge of C++ programming language. Programming techniques for implementing computer-aided design. Except to relevant building software tools for computer-aided problem solving in architecture and design. May be repeated for credit with consent of adviser. S/U or letter grading.

M227C. User Interaction Techniques in Design. (4). (Same as Design | Media Arts M243.) Lecture, three hours; outside study, nine hours. Requisite: course M227A or knowledge of C++ programming language. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues relevant to building software tools for computer-aided problem solving in architecture and design. May be repeated for credit with consent of adviser. S/U or letter grading.

M227D. Design and Building Models. (4). Lecture, three hours. Review of range of information and knowledge potentially used in design. Knowledge representation, abstractions, and constructs. Logical structure of design information. Development of knowledge used in areas of design, how it can be identified, analyzed, and structured. Letter grading.

CM247A. Introduction to Sustainable Architecture and Community Planning. (4). (Same as Urban Planning M292.) Lecture, three hours. Enforced requisite: course M227A or knowledge of C++ programming language. Projected for architecture and urban design students. Development 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 CM213. Letter grading.

M271. Elements of Urban Design. (4). (Same as Urban Planning M292.) Lecture, three hours. Introduc- tion of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, economic, and social conditions of urban systems and their dynamic interrelations. S/U or letter grading.

M272. Real Estate Development and Finance. (4). (Same as Urban Planning M272.) Lecture, two hours; workshop, two hours; outside study, eight hours. Requisites: Urban Planning 220A, 220B. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial structures, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively assessed to meet economic feasibility tests. S/U or letter grading.

286. Roman Architecture and Urbanism. (4). Lecture, three hours. Examination of architectural and urban developments during Roman period, from ar- chaeological sites to late Empire. Built environments of an- cient world investigated from various perspectives,
with consideration to programming, symbolism, and viewing, as well as to technological, aesthetic, and political factors. S/U or letter grading.

288. Renaissance Architecture and Urbanism. (4). Lecture, three hours. Examination of architectural developments from 15th to 17th century. Primary focus on Italian peninsula, and extending to entire Mediterranean basin. Study of structures, cities, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and iconographic content. S/U or letter grading.

289. Special Topics in Architecture and Urban Design. (1 to 4). Lecture, three 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.

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

291. Theory of Architectural Programming. (4). Lecture, two hours; discussion, one hour; outside study, 12 hours. Introduces the recognition of concepts and methods of architectural programming and its interrelation to design process; planning of design process; various techniques for determination of program contents, basic program elements, and program statements; identification of solution types for given situations. S/U or letter grading.

292. Politics, Ideology, and Design. (4). (Same as Urban Planning M293.) Lecture, three hours. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized problems. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4-4). Lecture, three hours. Introduction to models, concepts, and theories concerning impact of environment on human behavior, perception, and thought. Review of research results concerning space perception, cognitive mapping, preferences and attitudes toward environmental effects of crowding and stress, personal space and territoriality. S/U or letter grading.

295. 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.


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 instruction at UCLA. May be repeated for credit. S/U grading.

401. Advanced Topics Studio. (6). Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of all level studios (courses 412, 413, 414) or M.Arch. II student. Students may choose (through lottery) from several different project focusing on special topics in architectural and urban design to be offered by faculty members. May be repeated for credit. Letter grading.

402. Final Advanced Topics Studio. (6). Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate- and advanced-level studio for M.Arch. II student; satisfactory completion of advanced-level studios and fourth-term standing for M.Arch. II students. Students may choose (through lottery) from several different advanced-level studio topics in architectural and urban design to be offered by faculty members. Exit document (analytic paper with graphic component that critically examines final student design work) required at completion of course. Letter grading.

403A-403B. Research Studios. (2-2-6). For courses 403A, 403B: seminar, three hours; outside study, three hours; for course 403C: studio, 12 hours; outside study, 6 hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414) or M.Arch. II student. Course 403A is required to 403B, which is required to 403C. In-depth research phase (courses 403A, 403B) and advanced studio project (course 403C), with focus on number of different special topics in architectural and urban design. In Progress (403A, 403B) and letter grading.

404. Joint Planning/Architecture Studio. (4). (Same as Urban Planning M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work jointly on planning project for client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with resident leaders at Los Angeles City public housing developments. S/U or letter grading.

411. Introductory Design Studio. (6). Studio, 12 hours; outside study, six hours. Introduction to sketching, drawing, perspectives, CAD. Architectural composition is initially studied in terms of its separate elements. After each is studied by means of manipulative exercise that exploits its intrinsic possibilities, students undertake series of closely controlled 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. Concentration on basic skills, leading to projects exploring architectural program in relation to design process and particular progress on architectural forms and concepts. In second phase, introduction of structural elements to fulfill program requirements and to support and further developed in first phase, students conduct design studio. 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. Designed for second-year graduate students. Introduction to issues such as programming and program manipulation, site planning, urban design, and integration of technical systems and architectural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in depth and detail of smaller-scale projects. Students learn to integrate structure and environmental control and to present their ideas in graphic or model form. Letter grading.

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


436. Introduction to Building Construction. (2). Laboratory, two hours; outside study, four hours. Introduction to construction techniques. Study of principles and materials for making architecture through series of exercises and field trips. Letter grading.

437. Building Construction. (4). Laboratory, four hours; outside study, eight hours. Principles of structure and enclosure, with focus on production and materials research. Exploration of building elements for formal and functional properties; in addition, design development of project in previous studio may be developed in detail with integration of range of technical systems. Letter grading.

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 circulation, communication and electrical power distribution, analysis of interaction of these systems and their integrated effects on architectural form of building. S/U or letter grading.


496. Special Projects in Architecture. (2 to 8). Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

497. Special Projects in Urban Design. (2 to 8). Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.
498. Comprehensive Examination Seminar. (4). Seminar, three hours; outside study, nine hours. Seminar intended to begin process of developing independent proposal with related research and documentation that moves toward production of final document or book for each project. 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.


507. Preparation for Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8). Tutorial, to be arranged. May be repeated for credit. S/U grading.


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Elliott J. Elgart, M.F.A.
Paul D. McCarthy, M.F.A.
Nancy J. Rubins, M.F.A.

Associate Professor
Silke Otto-Knapp, M.F.A.

Assistant Professor
Rodney T. McMillan, M.F.A.

Lecturer
Don D. Suggs, M.F.A.

Scope and Objectives
The Department of Art offers professional art training that emphasizes experimentation and encourages students to draw from many disciplines in their creative process. The department provides a strong background in theory and criticism to support contemporary studio practice. Bachelor of Arts degree coursework and Master of Fine Arts degree specializations include ceramics, new genres, painting and drawing, photography, and sculpture. An interdisciplinary studio option is offered within the M.F.A. program. All programs have access to the art resources at UCLA and in the Los Angeles community.

The Department of Art reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection such examples as may be selected.

Additionally, the Department of Art reserves the right to use documentation and reproductions of student art work from studio courses, student exhibitions, and other records of creative work in publications including, but not limited to, the undergraduate and graduate brochures and publications, department and school websites, and presentations and events related to student recruitment and outreach.

Undergraduate Study
The Art major is a designated capstone major. As part of the upper division advanced studio requirements, all undergraduate students are required to complete a senior studio course that emphasizes analysis and criticism of individual creative work and ideas. Students develop and present a body of creative work in which they exhibit familiarity with and competence in a range of techniques and media, and a level of proficiency in utilizing particular media appropriate to advanced-level studio projects. Graduates are expected to demonstrate familiarity with historical precedents for and issues in contemporary art, to understand terms and concepts relevant to contemporary art discourse, and to have the ability to effectively articulate analysis of works of art to participate in a studio critique.

Art B.A.
Capstone Major

Preparation for the Major

The Major
Required: A minimum of nine upper division courses, including Art 100 or 132 or one course from an approved list of upper division nonmajor courses, six courses from at least four of the following studio areas: 130, 133, 137, 140, 145, 147, 148, one course from Art History M101A through 180C, one capstone senior studio course (Art 150), and 8 units of art electives.

Each course applied toward major requirements must be taken for a letter grade, with the exception of Art 190, 193, and 195A, which are offered only on a Passed/Not Passed grading basis. Of those, no more than 4 units total may be applied toward the upper division art elective requirement.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Art offers the Master of Fine Arts (M.F.A.) degree in Art.

Art

Lower Division Courses
1A. Drawing. (4). Studio, eight hours; five hours arranged. Course of basic drawing skills intended as preparation for work in variety of media. P/NP or letter grading.

1B. Sculpture. (4). Studio, eight hours; five hours arranged. Introduction to concepts and forms of contemporary sculpture to become familiar with tools and material to enable students to visually manifest their individual ideas. Presentation of work of contemporary artists. P/NP or letter grading.


11B. Photography. (4). Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Varied approaches, processes, and applications of photographic medium within context of art, supported by studies in theory, aesthetics, and history of photography. P/NP or letter grading.

11C. Printmaking. (4). Studio, eight hours; five hours arranged. Introductory survey of various technical and conceptual concerns in variety of printmaking media as preparation for more focused study in particular media at upper division level. P/NP or letter grading.


11E. Ceramics. (4). Studio, eight hours; five hours arranged. Introduction to ceramic materials and processes, with emphasis on personal and cultural expression in ceramic media. Discussion of ceramics in contemporary artistic practice and social history of ceramic art. Letter grading.


31A. Modernism. (5). Lecture, three hours; discussion, one hour; field trips, three hours. Impact of modernist thought on art and society from mid-19th through early-20th centuries. Exploration of origins, development, theory, and practice of modernism in Europe and U.S. Letter grading.

31B. Modernism. (5). Lecture, three hours; discussion, one hour; field trips, three hours. Requisite for Art majors: course 31A. Continuation of impact of modernist ideas through mid-20th century, with focus primarily on work made from 1920s to 1960s. Letter grading.

31C. Modernism. (5). Lecture, three hours; discussion, one hour; field trips, three hours. Requisites for Art majors: courses 31A, 31B. Continuation of impact of modernist ideas through latter part of 20th century,
covering shift from modernist to postmodernist prac-
tices and theories, with focus on work made from 1960s to present. Letter grading.

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

Upper Division Courses

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 exercise and shared work in professional setting. 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 re-
lected in critical writing and artistic practice, with em-
phasis on 1940s to present. 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 subject to further develop students' tech-
nical and expressive means to implement their ideas. May be repeated for maximum of 20 units. Letter grading.

137. Advanced New Genres. (5). Studio, eight hours; seven hours arranged. Requisite: course 11D. Em-
phasis to be selected by faculty members from one or more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.

140. Advanced Printmaking. (5). Studio, eight hours; seven hours arranged. Requisite: course 11C. Se-
lected studies in fine printmaking, historical and con-
temporary printmaking and engraving, lithogra-
phy, 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 contemporary and monumental; modeling, casting, carving, welding, and other media; forms in space, including installations and nonstudio pieces. May be repeated for maximum of 20 units. Letter grading.

147. Advanced Photography. (5). Studio, eight hours; seven hours arranged. Requisite: course 11B. Se-
lected projects in photography and related media, concentrating on development of students' work. 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. Se-
lected studies in ceramics, with emphasis on individu-
alized creative experimentation with materials and techniques introduced in course. Methods and pro-
cesses to be selected from range of possibilities, in-
cluding 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.

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

170. Special Topics in Studio. (2 to 4). Studio/mu-
seum visits, four to eight hours; two to four hours ar-
ranged. Current themes in art theory, practice, and criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of recommended readings. May be repeated for maximum of 16 units. P/NP or letter grading.

C180. Seminar: Art. (4). Seminar, three hours. Lim-
ted to junior/senior Art majors. Advanced topics in critical theory and study of contemporary art, with em-
phasis on individuals, issues, and theories; Possible areas of study from structuralism, decon-
struction, feminism and psychoanalytic theory, com-
modation, and censorship. May be repeated for credit. Concurrently scheduled with course C280. Letter grading.

C181. Exhibition and System. (4). Seminar, four hours. Preparation: at least one course from 100 through 150. Examination of temporary exhibition and its as-
sociated field of publications as interpretational system of meaning, beginning with individual works and pro-
ceeding to on-site analysis of current exhibitions. Concurrently scheduled with course C282. Letter grading.

C182. Exhibitions and Public Programs. (4). Se-
minar, four hours. Preparation: at least one course from 100 through 150. Introduction to principles of pro-
gram planning and community development in rela-
tion to visual arts institutions. Concurrently scheduled with course C282. Letter grading.

C183. Special Topics in Art. (2 or 4). Seminar, six hours (2-unit course) or 12 hours (4-unit course). Preparation: at least one course from 100 through 150. Selected topics in art explored through variety of approaches that may include projects, readings, dis-
cussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C283. Letter grading.

M184. Chicana and Chicano Art. (4). (Same as Chi-
cana and Chicano Studies M175 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chicana and Chicano artists. Examination of Chicana a-
esthetic. Chicana artists have developed unique experi-
ence and identity as artists and Chicanas. Letter grading.

M185. Whose Monument Where: Course on Public Art. (4). (Same as Chicana and Chicano Studies M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisite: course M186AL, M186BL. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as public private space. Debate over public space at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space dif-
erently? P/NP or letter grading.

M186A. Beyond Mexican Mural: Beginning Mural-
ism and Community Development. (4). (Same as 
Chicana and Chicano Studies M186A and World Arts and Cultures M125A.) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of mu-
ralism as method of community education, develop-
ment, and empowerment. Exploration of issues through development of large-scale collaborative dig-
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ally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installa-
tion, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M186C. Beyond Mexican Mural: Advanced Mural-
ism and Community Development. (4). (Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125C) Studio/lecture, four hours. Requi-
tes: courses M186B, M186BL. Corequisite: course 
M186CBL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative dig-
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ally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installa-
tion, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M187. Contemporary Art Collections in Los Ange-
elles. (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.

190. Studio/Research Colloquia in Art. (1). Sem-
inar, three hours. Corequisite: course 197 or 198. Lim-
ited to juniors/seniors. Designed to bring together students undertaking supervised tutorial studio proj-
ects or research in seminar setting with one or more faculty members to discuss work related to upper level work in discipline. Led by one supervising faculty member. May be repeated for maximum of 4 units. P/NP grading.

193. Journal Club Seminars: Current Topics in Art. (1). Seminar, three hours. Limited to junior/senior Art majors. Discussion of selected current exhibitions, visiting artist lectures, screenings, and readings in field. May be repeated for credit. P/NP grading.

195. Community Internships in Art. (2 to 4). (For-
merly numbered 195A.) Tutorial, six to 12 hours. Lim-
ited to juniors/seniors. Art-related internship in super-
vised setting in community agency, business, or insti-
tution. Students meet on regular basis with instructor and provide periodic reports of their experience. Only 4 units may be applied toward upper division art elec-
tive major requirement. May be repeated for max-
imum of 8 units. Individual work supervised by supervising faculty member required. P/NP grading.

197. Individual Studies in Art. (2 to 4). Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/se-
ior Art majors. Individual intensive studio project or study, with scheduled meetings to be arranged be-
tween faculty member and student. Tangible evidence of project or mastery of subject matter required. May be repeated for maximum of 8 units. Individual con-
tact required. Letter 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. Independent study project or study, with completed through the initial development and completion of comprehensive research
Graduate Courses

C283. Special Topics in Art. (2 or 4). Letter grading.

271. Graduate Painting. (2 to 8). Studio, eight hours. Study in painting and associated media. May be repeated for credit with consent of adviser. Letter grading.

272. Graduate Printmaking. (2 to 8). Studio, eight hours. Studies in traditional and experimental printmaking. Selected studies in intaglio, lithograph, woodcut, silk screen, photo printmaking, and mixed media. May be repeated for credit with consent of adviser. Letter grading.

273. Graduate Sculpture. (2 to 8). Studio, eight hours. Studies in sculpture with specific attention to ongoing nature, specificity, and approach to each student's 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 students' artwork. Studio emphasis with adjacent 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.


276. Graduate Group Critique. (4). Discussion, four hours; tutorial, arranged. Group critique/discussion of students' research. Additional tutorial meetings arranged by 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 on development of significant body of original work reflecting student's expressive and theoretical concerns. May be repeated for credit. Letter grading.

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

C280. Seminar: Art. (4). Seminar, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psychoanalytic theory, commodification, and censorship. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

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

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

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

Required: Eleven upper division art history courses as follows:

A total of six courses (24 units) from the following 12 areas are required, distributed as follows: one course from three different areas in Group A (three courses total) and one course from three different areas in Group B (three courses total):


Five art history electives selected from courses 100 through 180C are required; course 197 may also be included.

Two additional terms of a foreign language are also required, which are in addition to the College foreign language requirement. For example, if French was used to satisfy the College foreign language requirement, two terms of either advanced French or any level of a second advanced language must be taken to satisfy the foreign language requirement for the major.

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

Honors Program

The honors program is designed for 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.

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 courses 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.

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.

To enter the minor students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student affairs officer to plan a coherent program.

Required Lower Division Courses (15 units): Three courses selected from Art History 50, 51, 54, 55, 55A, 55B, 56A, 56B, 57.

Required Upper Division Courses (20 units): Five art history courses, with at least two from each group:


Art History 127 (4 units) may be taken as one of the five upper division courses required for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

By petition, one upper division course with substantial art historical content and methodology applied toward the students’ majors may also be applied toward this minor.

Each minor course must be taken for a letter grade, 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Art History offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Art History.

Art History

Lower Division Courses

50. 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.

51. Medieval Art. (5). Lecture, three hours; quiz, two hours. Early Christian, Byzantine, Islamic, Carolingian, Ottoman, Romanesque, and Gothic art and architecture. P/NP or letter grading.

54. 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.

55A. Introduction to 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.

55B. Introduction to Pre-Columbian Art. (5). Lecture, three hours; discussion, one hour; museum field trips. Survey of sequence of cultures that developed in area between (and including) Mexico and Peru from circa 1000 B.C. to Conquest. P/NP or letter grading.

56A. Art of India and Southeast Asia. (5). Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indian subcontinent and Southeast Asia using key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

56B. 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 artifacts in variety of media in their social and historical contexts. P/NP or letter grading.

57. Renaissance and Baroque Art and Ideology. (5). Lecture, three hours; discussion, one hour. Survey of Renaissance and baroque art and ideology to introduce students to basic tools of stylistic and iconographical analysis. Coverage of historical development of European art and architecture over period of almost 500 years and exploration of ways in which those in religious and secular power used images to promote their particular ideologies. P/NP or letter grading.

58. Architecture in Modern World. (5). Lecture, three hours; discussion, one hour. Introduction to historical and visual analysis of architecture from 1850 to present. Examination of ways that new architectural theories, economic and technological change, nationalism, and colonialism have shaped architecture and cities worldwide. P/NP or letter grading.
Upper Division Courses


M101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4). (Same as Ancient Near East CM101A) Lecture, three hours. Study of art, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4). (Same as Ancient Near East M101C) Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile’s eastern and western banks through festival processions, chronological changes in function and form of Theban temples through time, and study of an entire program of individual temples. P/NP or letter grading.

M102A. Minoan Art and Archaeology. (4). (Same as Classics M153A) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture in Minoan Crete from circa 3000 to 1000 B.C. P/NP or letter grading.

M102B. Mycenaean Art and Archaeology. (4). (Same as Classics M153B) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture in Mycenaean Greece from circa 2000 to 1000 B.C. P/NP or letter grading.

M102C. Archaic Greek Art and Archaeology. (4). (Same as Classics M153C) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 800 through 490 B.C. P/NP or letter grading.

M102D. Classical Greek Art and Archaeology. (4). (Same as Classics M153D) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 490 through 350 B.C. P/NP or letter grading.

M102E. Hellenistic Greek Art and Archaeology. (4). (Same as Classics M153E) Lecture, three hours. Requisite: course 50 or Classics 10 or 51A. Study of development of art and architecture of Greek world from middle of 4th century B.C., including transmittal of Greek art forms to Romans, P/NP or letter grading.

M102F. Etruscan Art. (4). (Same as Classics M153F) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Arts of Italic peninsula from circa 1000 B.C. to end of Roman Republic. P/NP or letter grading.

M102G. Roman Art and Archaeology. (4). (Same as Classics M153G) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Art and architecture of Rome and its Empire from circa 300 B.C. to A.D. 300. P/NP or letter grading.

M102H. Late Roman Art. (4). (Same as Classics M135H) Lecture, three hours. Requisite: course 50 or Classics 20 or 51B. Art of Roman Empire from 2nd to 4th century (A.D.). P/NP or letter grading.

M102J-M102K. Classical Archaeology. (4-4). (Same as Classics M135J-M135K) Lecture, three hours. Requisite: one course from 50, Classics 10, 50B, 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.

M102L. Greco-Roman Architecture. P/NP or letter grading.


M103A. Lecture, three hours; demonstrations/field trips. Introduction to historical evolution of museums and museology, theories and methods of their operations, historical and critical relationships between museology, art history, and new technologies for archiving and exhibiting artifacts and historical materials. C103B. Lecture, three hours; demonstrations/field trips. Lectures and discussions organized to foster active critical engagement with museum policies, operations, and productions involving focused study and on-site research on particular museum institutions and exhibitions.

C103C. Museum Studies Practicum. (2 to 4). Lecture, three hours. Requisites: courses C103A, C103B. On-site examination and discussion of selected artworks, exhibitions, and associated published and distributed materials, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C203C. Letter grading.

C103D. Preservation of Art. (4). Lecture, three hours. Designed for Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and cultural reference to changing values, illustrating how cultural materials may have been treated differently according to those values. Concurrently scheduled with course C203E. P/NP or letter grading.

C103F. Art: Fakes, Forgeries, and Authenticity. (4). Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept in series of discussions based on objects from variety of cultures. Introduction to subject of fakes and account of three different areas of connoisseurship that is 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 some examples from modern art. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis of another study of paintings. Some of the many new 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 C103B. P/NP or letter grading.

104A. Western 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.

C104C. Problems in Islamic Art. (4). Seminar, three hours. Monuments or theoretical problems related to Islamic art and cultural production. May be repeated for credit with consent of adviser. Concurrently scheduled with course C214. P/NP or letter grading.

M104D. Introduction to Islamic Archaeology. (4). Lecture, three hours. Concurrently scheduled with courses C153A-C153B. P/NP or letter grading.


M106D. Late Renaissance Art: Counter-Reformation. (4). Lecture, three hours. Requisite: course 57. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.


M108C. From Bruegel to Rubens. (4). Lecture, three hours. Requisite: course 57. Art and history in Spanish southern Netherlands (i.e., present-day Belgium), circa 1550 to 1650, in context of Spanish rule and revolt against it (1568 to 1585), truce with northern independent (Dutch) Netherlands (1609 to 1621), and renewal of war (1621 to 1648). P/NP or letter grading.

C109A. Baroque Art. (4). Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C209A. P/NP or letter grading.


M109C. European Art of 18th Century. (4). Lecture, three hours. Requisite: course 57. Painting, architecture, and sculpture of 18th century examined in light
of political and intellectual developments. Special emphasis on effect of rise of democratic institutions, esp. French Revolution. P/N or letter grading.

110C. European Art of 19th and 20th Centuries: England and Germany. P/N or letter grading.


M110D. Cultural and Intellectual History of Modern Europe, 19th Century. (Same as History M122E.) Lecture, three hours: discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on social and political developments of time in historical context. P/N or letter grading.

110F. Selected Topics in Modern Art. (4). Lecture, three hours. Requisite: course 54. Changing topics in modern art (post-1780) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. P/N or letter grading.


C110H. Latin American Art of 20th Century. (4). Lecture, three hours: discussion, one hour (when scheduled). Mainstream modern and contemporary art and architecture of selected Latin American countries, including both modernist and postmodernist forms, considered in context of social and political concerns, both national and international. Concurrently scheduled with course C254. P/N or letter grading.

C110L. Mexican Art in Modern Age. (4). Lecture, three hours. Mexican art of 19th and 20th centuries, from Romanticism to present day. Study of art and revolution, muralism, surrealism, indigenism, postcolonialism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C252. P/N or letter grading.

110J. Variable Topics in Western Art. (4). Lecture, three hours. Selected Topics in arts of Western peoples that reflect interests of individual regular and visiting faculty members. May be repeated for credit with topic change. P/N or letter grading.

C112A. 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 C212A. P/N or letter grading.

C112B. American Art in Gilded Age, 1860 to 1900. (4). Lecture, three hours. Painting, sculpture, and architecture in the U.S. toward turn of century. Concurrently scheduled with course C212B. P/N or letter grading.

C112C. American Art, 1900 to 1945. (4). Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to World War II. Concurrently scheduled with course C212C. P/N or letter grading.


113A. Architecture in U.S. (4), lecture, three hours; one hour discussion. Introduction to architecture built in U.S. over last 5,000 years. Architecture as vehicle for political and cultural authority, citizenship, ethnic and social identity; its role in defining place and our relationship to natural environment and as vehicle for asserting human control over natural world; its place in world of work and commerce; and its status as professional and aesthetic pursuit. P/N or letter grading.

113B. 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/N or letter grading.

113C. American Houses. (4). Lecture, three hours. Many historians consider single-family houses to be one of two most American contributions to world architecture (next to skyscrapers). Examination of this claim critically by placing single-family houses in broader context of varied dwellings built and occupied by residents of present-day U.S. over last 500 years, including both aesthetically ambitious houses and ordinary (or vernacular) houses, houses of indigenous peoples and those of immigrants of many sorts, urban and rural houses, and single-family houses and multiplex dwellings of all sorts. Offered ways to think about houses we occupy and to understand how they relate to major themes in history of American architecture. P/N or letter grading.

114A. Early Art of India. (4). Lecture, three hours. Not open to freshmen. Survey of Indian art from Indus Valley cultures to 10th century. Emphasis on Buddhist and Hindu backgrounds of arts. P/N or letter grading.


114D. 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 efflorescence of Hindu architecture, Muslim painting and architecture, and Rajput painting. P/N or letter grading.

114E. Arts of Korea. (4). Lecture, three hours. Art and archaeology of Korea from Neolithic Period through Yi dynasty. Particular emphasis on early archeology and state formation, Buddhist art, Koryo ceramics, and Yi literati painting. P/N or letter grading.


115A. Advanced Indian Art. (4). Lecture, three hours. Requisite: course 114A. Study in Indian sculpture and architecture. Concurrently scheduled with course C257. P/N or letter grading.


115D. Art and Material Culture, Neolithic to 21st B.C. (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 C261A. P/N or letter grading.

115E. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 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 C261B. P/N or letter grading.

115F. 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 C261C. P/N or letter grading.


115I. 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. Concurrently scheduled with course C261E. P/N or letter grading.

115J. Fieldwork in Archaeology. (8). Fieldwork, eight hours. Course takes place at Yangguanzhai Village, Jing River Valley, approximately 25 kilometers north of ancient city of Xi’An in northwestern China, as collaborative project between Cotsen Institute of Archaeology at UCLA, Shaanxi Institute of Archaeology, and Xaibei University in Xi’An China. Students spend first week in Xi’An for five days of lectures and museum instructional tours. Following four weeks are spent in field participating in excavation and laboratory work at Shaanxi Institute of Archaeology’s Jingwei Research Base near Yangguanzhai site. Concurrently scheduled with course C212J. P/N or letter grading.

C117A. Pre-Columbian Art of Mexico. (4). Lecture, three hours. Requisite: course 55B. Study of art of selected cultures of northern Mesoamerica from circa 1200 B.C. to Conquest, with emphasis on historical and iconographic problems. Concurrently scheduled with course C218A. P/N or letter grading.

C117B. Pre-Columbian Art of Maya. (4). Lecture, three hours. Requisite: course 55B. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 B.C. to Conquest, with particular emphasis on history and iconography of art of Pre-Classic period. Concurrently scheduled with course C218B. P/N or letter grading.

C117C. Pre-Columbian Art of Andes. (4). Lecture, three hours: discussion, one hour. Requisite: course 55B. Study of art of selected cultures of Colombia, Ecuador, Peru, and Bolivia from circa 4000 B.C. to Conquest, with particular emphasis on history and iconography of art of Pre-Inca period. Concurrently scheduled with course C218C. P/N or letter grading.
C117D. Aztec Art. (4). Lecture, three hours. Requisite: course 55B or C117A. Painting, sculpture, architecture, and other arts of Nahua-speaking peoples of central Mexico. Survey of architectural and monumental art in various geographic regions of Mexico, from the earliest Aztec period to the fall of the Aztec Empire. Includes study of Aztec art in the imperial capital of Tenochtitlan, the Aztec state in its formative period, and the postconquest period, with emphasis on their social and historical context and major scholarly debates. Concurrency required with course C216D. P/NP or letter grading.

C119C. Contemporary Arts of Africa. (4). Lecture, three hours; discussion, one hour (when scheduled). Survey of African visual culture from the mid-20th century to the present with special emphasis on changing meaning of art in contemporary African society. Study of contemporary African art and its influences and contributions to global art. Concurrency required with course C216C. P/NP or letter grading.

C119D. Architecture and Urbanism in Africa. (4). Lecture, three hours. Survey of African built environment at various points in time and in different places from about 200 B.C.E. to present, with emphasis on cultural, political, and social contexts of architecture. Concurrency required with course C216D. P/NP or letter grading.

C119E. African Civilizations. (4). Lecture, three hours. Development of very different African civilizations through their arts from 100 B.C.E. to present. P/NP or letter grading.

127. Undergraduate Seminar. (4). Seminar, three hours. Designed for juniors/seniors. Selected aspects of art history explored through readings, discussion, research papers, and oral presentations. May be repeated twice. P/NP or letter grading.


C140C. History of Korean Buddhist Art. (4). Lecture, three hours. Requisite: course 114E. History of Korean Buddhist art from Three Kingdom period to Choson dynasty, with special emphasis on Buddhist sculpture, painting, and architecture. Concurrency required with course C242C. P/NP or letter grading.

C140D. Selected Topics in Korean Art. (4). Lecture, three hours. Requisite: course 114E. Variable topics in Korean art. May be repeated for credit. Concurrently scheduled with course C242D. P/NP or letter grading.

C147. Modern Art, 1900 to 1950. (4). Lecture, three hours. Inquiry into 20th-century modernism from Fauvism to abstract expressionism. Topics include prehistorical, 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; antismodernism and feminism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrency required with course C247. P/NP or letter grading.

C149A. Dada, 1915 to 1923. (4). Lecture, three hours; discussion, one hour (when scheduled). Introduction to modernism and historical avant-garde of early 20th century. Topics include: history 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 C249A. P/NP or letter grading.

C149B. 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 philosopher Georges Bataille, as well as to challenge to art history posed by surrealism’s engagement with lessons of psychoanalysis. Concurrently scheduled with course C249B. P/NP or letter grading.

C150A. Contemporary Art, 1940s to 1950s. (4). Lecture, three hours. Requisite: course 54. Study of major artistic and cultural trends following World War II in U.S. and Europe, covering abstract expressionism to pop art. Concurrency required with course C250A. P/NP or letter grading.


C150C. Contemporary Art, 1980s to Present. (4). Lecture, three hours; discussion, one hour (when scheduled). Study of politics of representation at end of century, covering dominant strategies and trends in postmodernism to current developments. Concurrently scheduled with course C250C. P/NP or letter grading.

150D. Selected Topics in Contemporary Art. (4). Lecture, three hours. Requisite: course 54. 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.


C171B. 1910 to Present. Lecture, three hours; discussion, one hour. History of photography in 20th century, with special attention to photography’s entrance into project of avant-garde and its role in formation of postmodern aesthetic. C171C. Selected Topics. Lecture, three hours. Variable topics in history of photography that reflect interests of individual regular and/or visiting faculty members.

M172. Armenian Painting, 17th to 20th Century. (4). (Same as Armenian M172.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.


C180A. Art and Empire. (4). Lecture, three hours. Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C180B. P/NP or letter grading.

C180C. Modern and Contemporary South Asian Art. (4). (Formerly numbered C180C.) Lecture, three hours; discussion, one hour (when scheduled). Topics in modern and contemporary South Asian art from 1947 to present. Concurrently scheduled with course C250C. P/NP or letter grading.

195. Museum Studies Internship. (2 to 4). Tutorial, four hours; fieldwork, three hours. Requisite: course C103A or C103B. Limited to junior/senior Art History majors, internship in supervised setting at participating host museum at UCLA or in greater Los Angeles area. Participation in ongoing museum projects and operations, with specific work to be determined by host institution in consultation with faculty mentor. Course or educational, community, or public relations, and development work may be included, as well as assistance at public programs and related events. Students meet on regular basis with faculty mentor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty mentor required. P/NP grading.

197. Individual Studies in Art History. (2 to 4). Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual intensive study for majors, with scheduled meetings to be arranged between faculty and student. As assigned reading and tangible evidence of mastery of subject matter required. May be repeated for maximum of 8 units. Eight units may be applied toward major. Individual contract required. P/NP or letter grading.
Graduate Courses

200. Art Historical Theories and Methodologies. (4). Seminar, three hours. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts from antiquity to present. May be repeated for credit with consent of adviser. S/U or letter grading.

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

202. Topics in Theory and Criticism in Art History. (4). Seminar, three hours. Focused studies of various theoretical and critical traditions within art history, concentrating on particular issues, authors, or methodologies. May be repeated with consent of adviser. S/U or letter grading.

203. Conservation and Management of Art. (4). Seminar, two hours. Laboratory, four hours. Conservation and technical methods by which material constituents of works of art are studied. Development of basic theoretical knowledge on dating, connoisseurship, authorship, and authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept in series of discussions based on objects from various cultures. Introduction to subject of fakes and account of three different areas of connoisseurship that are essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship described in many examples from Renaissance and earlier panel paintings, as well as antiques and traditional African arts. Background of art restoration and art conservation discussed in relationship to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship 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 C103D. Letter grading.


205. Imaging Black African History, Art History, and Art. (4). Seminar, two hours. Laboratory, two hours. Basic and advanced techniques on digital photography, computer-aided recording/text recording tools, art to determine and document condition (defects) and technological features of anthropological and ethnographic material. Development of basic theoretical knowledge on imaging and photographic processes of black African American artists whose works provide insightful critical analysis of black visual production and racism. Concurrently scheduled with course CM112F. Letter grading.

211. Topics in Aegean Art. (4). Seminar, two hours. May be repeated for credit with consent of adviser. Concurrently scheduled with course C109A. S/U or letter grading.

210. Egyptian Art. (4). Seminar, two hours. Requisites: courses M101A, M101B, M102A. Art in Egypt during Late period and Greco-Roman period. Students should be ready to prepare for every meeting by 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.

211. Topics in Aegean Art. (4). Seminar, two hours. Requisites: courses M101A, M101B, M102A. Art and architecture of Aegean Bronze Age (3000 to 1000 B.C.). Monuments or theoretical problems related to art and culture of ancient Greece, Cyclades, or Western Anatolia. May be repeated for credit with consent of adviser. S/U or letter grading.

212A. American Art before Civil War. (4). Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112A. S/U or letter grading.

212B. 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. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112B. S/U or letter grading.

212C. American Art, 1900 to 1945. (4). Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. May be repeated for credit with consent of adviser. Concurrently scheduled with course C112C. S/U or letter grading.

212D. African American Art. (4). (Same as African American Studies CM212D.) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists. May be repeated for credit with consent of adviser. Concurrently scheduled with course CM112D. S/U or letter grading.

212F. Imaging Black Popular Culture. (4). (Same as African American Studies CM212F.) Lecture, three hours. Critical examination of media ranging from African American painting and sculpture to MTV and advertising, with emphasis on relationship between black visual production and racism. Documenting, political resistance, and notions of blackness. Concurrently scheduled with course CM112F. S/U or letter grading.

213. Advanced Studies in Islamic Art. (4). Seminar, two hours. Art and architecture of Islamic world (Spain to Iran) from 7th to 17th century. Monuments or theoretical problems related to Islamic culture and artistic production. May be repeated for credit with consent of adviser. S/U or letter grading.

214. Problems in Islamic Art. (4). Seminar, three hours. Monuments or theoretical problems related to Islamic art and artistic production. May be repeated for credit with consent of adviser. Concurrently scheduled with course C104C. S/U or letter grading.

215J. Fieldwork in Archaeology. (8). Fieldwork, eight hours. Course may be repeated every other year, once in the vicinity of Los Angeles. May be repeated for credit with consent of adviser. Concurrently scheduled with course C104C. S/U or letter grading.
spent in field participating in excavation and labora-

C216C. Contemporary Arts of Africa. (4). Lecture, three hours; discussion, one hour (when scheduled). Surveys African visual practices since mid-20th cen-
tury, with special emphasis on changing meaning of art object, status of African artist, global reception of contemporary African art, and very definitions of cont-
emporary African art. Concurrently scheduled with course C119C. S/U or letter grading.

C216D. Architecture and Urbanism in Africa. (4). Lecture, three hours. Survey of African built environ-
ment at various moments and in different places from about 200 C.E. to present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concur-
rently scheduled with course C119D. S/U or letter grading.

217. Primitivism and Art. (4). Lecture, three hours. History of primitivism in visual arts and its institutional base from ancient Greece to present, with emphasis on relevance to contemporary issues, critiques, and theory. May be repeated for credit with consent of ad-
viser. S/U or letter grading.

C218A. Pre-Columbian Art of Mexico. (4). Lecture, three hours. Requisite: course 55B. Study of art of se-
lected Maya-speaking cultures from circa 1200 B.C. to Conquest, with emphasis on historical and iconographic problems. May be repeated for credit with consent of adviser. Concurrently sched-
uled with course C117A. S/U or letter grading.

C218B. Pre-Columbian Art of Maya. (4). Lecture, three hours. Requisite: course 55B. Study of art of se-
lected Maya-speaking cultures of southern Meso-
america from circa 2000 B.C. to Conquest, with par-\nticular emphasis on iconography. May be repeated for credit with consent of adviser. Concurrently sched-
uled with course C117B. S/U or letter grading.

C218C. Pre-Columbian Art of Andes. (4). Lecture, three hours; discussion, one hour. Requisite: course 55B. Study of art of selected cultures of Colombia, Ecuador, Peru, and Bolivia from circa 4000 B.C. to Conquest, with particular emphasis on history and iconography of art of Peru. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117C. S/U or letter grading.

C218D. Aztec Art. (4). Lecture, three hours. Requi-
site: course 55B. Study of art of Mexico. Painting, sculp-
ture, and other arts of Nahua-speaking peoples of central Mexico in centuries before Spanish con-
quest, with emphasis on their social and historical contexts and major scholarly debates. May be re-
peated for credit with consent of adviser. Concurrently sched-
uled with course C117D. S/U or letter grading.

218E. Colonial Latin American Art. (4). Lecture, three hours. Hybrid visual cultures created in after-
math of this cultural collision in Mexico, former Vice-
royalty of New Spain, from 16th to 18th century. Topics include theories of conquest and colonization; role of art and architecture in conquest, conversion, and colonization; indigenous artistic responses and creation of hybrid visual practices in featherwork, manuscripts, painting, sculpture, and architecture; maps and geography of colonization; urban planning and utopian ideals; Counter-Reformation and politics of representation; saints' cults and gender ideologies; Aztec and Hispanic Catholic blood sacrifice imagery; processions; and alchemical iconography. May be repeated for credit with consent of adviser. Concurrently scheduled with course C117E. S/U or letter grading.

219A. Oceanic Art. (4). Seminar, three hours. Studies in selected topics in art of Pacific Islands. May be re-
peated for credit with consent of adviser. S/U or letter grading.

219B. Pre-Columbian Art. (4). Seminar, three hours. Studies in selected topics in art of pre-Hispanic Latin America. May be repeated for credit with consent of adviser. S/U or letter grading.

219C. 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.

219D. Native North American Art. (4). Seminar, three hours. Studies in selected topics in art of Amer-
ican Indians. May be repeated for credit with consent of adviser. S/U or letter grading.


225. Medieval Art. (4). Seminar, two hours. Preparation: knowledge of Latin, working knowledge of Late, Workshop approach to documents pertaining to artistic commissions from 15th to 17th century in Italy to study various aspects of handwriting in official and private deeds, corre-
spendence, treatises, and inscriptions. May be re-
peated for credit with consent of adviser. S/U or letter grading.

229. Renaissance and Baroque Paleography. (4). Seminar, two hours. Preparation: knowledge of Italian, working knowledge of Late, Workshop approach to documents pertaining to artistic commissions from 15th to 17th century in Italy to study various aspects of handwriting in official and private deeds, corre-
spendence, treatises, and inscriptions. May be re-
peated for credit with consent of adviser. S/U or letter grading.

230. Italian Renaissance Art. (4). Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardo's theoretical app-
proach to art in terms of sources and impact on followers. May be re-
peated for credit with consent of adviser. S/U or letter grading.

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

235. 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.

240. Baroque Art. (4). Seminar, two 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.

241A-M241B. Seminars: Modern European His-
tory (4-4). (Same as History M230A-M230B.) Sem-
inar, three hours. Course M241A is requisite to M241B. May be repeated for credit with consent of adviser. In Progress (M241A and S/U or Letter (M241B) grade).

242A. History of Korean Painting. (4). Lecture, three hours. Preparation: course 114E. Korean painting his-
tory from Three Kingdom period to 19th century, with special emphasis on Choson dynasty (1392 to 1910). Concurrently scheduled with course C140A. S/U or letter grading.

242B. History of Korean Ceramics. (4). Lecture, three hours. Preparation: course 114E. History of Ko-
rean ceramics from Neolithic period to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C140B. S/U or letter grading.

242C. History of Korean Buddhist Art. (4). Lecture, three hours. Preparation: course 114E. History of Ko-
rean Buddhist art from Three Kingdom period to Choson dynasty, with emphasis on Buddhist sculpture, painting, and architecture. Concurrently scheduled with course C140C. S/U or letter grading.

242D. Selected Topics in Korean Art. (4). Lecture, three hours. Preparation: course 114E. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. Concurrently sched-
uled with course C140D. S/U or letter grading.

243. Topics in European Art, 1700 to 1900. (4). Seminar, two to three hours. May be repeated for credit with consent of adviser. S/U or letter grading.

245. European Art, 1700 to 1900. (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.

246. 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-

C247. 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-

C248. Surrealism, 1924 to 1939. (4). Lecture, three hours; discussion, one hour (when scheduled). Study of art, literature, and film associated with surrealist movement in France, with special attention to dissi-

C249. 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 geographic locales during and after World War I. Visual art, literature, film, and per-
formance addressed, with special attention to inven-
tion of series of avant-garde strategies crucial to Dada: ready-made, collage, montage, and ready-made; rise of automatism and chance procedures; art, utopia, and political revolu-
tion; antimodernism and fascism; mass culture, ma-

C250. Contemporary Art, 1940s to 1950s. (4). Lecture, three hours. Preparation: knowledge of Late, Workshop approach to documents pertaining to artistic commissions from 15th to 17th century in Italy to study various aspects of handwriting in official and private deeds, corre-
spendence, treatises, and inscriptions. May be re-
peated for credit with consent of adviser. S/U or letter grading.

C251. Contemporary Art, 1960s to 1970s. (4). Lecture, three hours. Preparation: course 54. Study of major artistic and cultural trends following World War II in U.S. and Europe, covering abstract expres-
sionism to pop art. Concurrently scheduled with course C150A. S/U or letter grading.


252C. Mexican Art in the Modern Age. (4). Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1785 to present day. Study of art and revolution, muralism, surrealism, indigenism, modernism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C110L. S/U or letter grading.

253. Modern Art. (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.

254. Latin American Art of 20th Century. (4). Lecture, three hours; discussion, one hour (when scheduled). Mainstream modern and contemporary art and architecture of selected Latin American countries, including both modernist and postmodernist forms, considered in context of social and political concerns, both national and international. May be repeated for credit with consent of adviser. Concurrently scheduled with course C110H. S/U or letter grading.


M256. Topics in African American Art. (4). (Same as African American Studies M256.) Seminar, three hours. Requisite: course CM112D or CM112E or CM112F. Topics in African American art from 18th century to present. May be repeated for credit with consent of adviser. S/U or letter grading.

257. Advanced Indian Art. (4). Lecture, three hours. Requisite: course 114A. Study in Indian sculpture and architecture. May be repeated for credit with consent of adviser. Concurrently scheduled with course C115A. S/U or letter grading.


260A. Indian Art. (4), Lecture, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. S/U or letter grading.


260C. Japanese Art. (4), Lecture, two hours. Advanced studies in secular and religious artistic traditions of Japan. May be repeated for credit with consent of adviser. S/U or letter grading.

C251A. Art and Material Culture, Neolithic to 210 B.C. (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). May be repeated for credit with consent of adviser. Concurrently scheduled with course C115D. Extensive research paper required of graduate students. S/U or letter grading.

C261B. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906. (4). Lecture, three hours. Palaces and tombs of early imperial dynasties, impact of Buddhist art (cave temples), rise of new media and technologies. May be repeated for credit with consent of adviser. Concurrently scheduled with course C115E. S/U or letter grading.

C261C. 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 (lace, porcelain, textiles, jade, bronze, furniture, wood and bamboo carving, etc.). May be repeated for credit with consent of adviser. Concurrently scheduled with course C115F. S/U or letter grading.

C261D. Art in Modern China. (4), Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradition, and continuity. Consideration of recent developments in Chinese art in global context. Concurrently scheduled with course C115G. S/U or letter grading.

C261E. 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. Concurrently scheduled with course C115I. S/U or letter grading.

M262A. Topics in Asian Archaeology. (4). (Same as Anthropology M216.) Lecture, 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, archaology of language dispersal, cultural contact and nature of cultural “influence.” Letter grading.

265. Fieldwork in Archaeology. (2 to 8). Fieldwork, to be arranged. Participation in archaeological excavations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.

C271A-C271B-C271C. History of Photography. (4-4-4). Lecture, three hours; discussion, one hour. Concurrently scheduled with courses C171A-C171B-C171C. S/U or letter grading.

C271A. 1839 to 1910. Study of origin, social functions, and development of photography in 19th and early 20th centuries, from Niépce to Atget. C271B. 1910 to Present. History of photography in 20th century, with special attention to photography’s entrance into project of avant-garde and its role in formation of postmodern aesthetic. C271C. Selected Topics. Variable topics in history of photography that reflect interests of individual regular and/or visiting faculty members.


C280A. Art and Empire. (4). Lecture, three hours. Examination of relationship between imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C180A. Letter grading.

280C. Modern and Contemporary South Asian Art. (4). (Formerly numbered C280C.) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to present. 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. Described for graduate students. Required of all new teaching assistants during Fall Quarter of their teaching assistant appointment. Workshop/seminar in teaching techniques and pedagogical issues, consisting of readings, discussions, and guest speakers on selected topics from fall quarter through M.A. or Ph.D. course requirements. S/U grading.
lics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, and visual arts. P/NP or letter grading.

M192. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4), (Formerly numbered 192.) Seminar, three hours. Required courses: courses M102, M112. Limited to juniors/seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Study projects for individual contract needs for personal enrichment by preparing them either for advanced graduate studies or for life after college as citizens, employees, and entrepreneurs.

Jerry Kang, J.D. (Korea Times-Hankook Ilbo Endowed Professor of Korean American Studies and Law)
Jinqi Ling, Ph.D.
Valerie J. Matsumoto, Ph.D.
Paul M. Ong, Ph.D.
Shu-mei Shih, Ph.D.
Renee E. Tijerina-Fehr, B.A. (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
Lois M. Takahashi, Ph.D.
David K. Yoo, Ph.D.
Min Zhou, Ph.D. (Walter and Shirley Wang Professor of U.S./China Relations and Communications)

Professors Emeriti
Snehendu B. Kar, Dr.P.H., M.Sc.
Don T. Nakanishi, Ph.D.

Associate Professors
Victor Bascara, Ph.D.
Lucy M. Burns, Ph.D.
Keith Lujan Camacho, Ph.D.
Grace Kyungwon Hong, Ph.D.
Vinay Lai, Ph.D.
Anna S. Lau, Ph.D.
David Wong Louie, M.F.A.
Purnima Maniak, Ph.D.
Allee Moon, Ph.D.
Vinit Mukhija, Ph.D.
Thu-huong Nguyen-vio, Ph.D.
Kyeoung Park, Ph.D.
Robert Chao Romero, J.D., Ph.D.

Lecturers
Stewart Kowth, J.D.
Glenn K. Omanstu, M.A.
Duong Pham, Ph.D.

Adjunct Assistant Professor
Tritia Toyota, Ph.D.

Scope and Objectives
The Department of Asian American Studies, founded in 2004, is a national and international leader in promoting the study of Asian and Pacific Islander Americans across a number of fields and disciplines.

Jerry Kang, J.D. (Korea Times-Hankook Ilbo Endowed Professor of Korean American Studies and Law)
Jinqi Ling, Ph.D.
Valerie J. Matsumoto, Ph.D.
Paul M. Ong, Ph.D.
Shu-mei Shih, Ph.D.
Renee E. Tijerina-Fehr, B.A. (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
Lois M. Takahashi, Ph.D.
David K. Yoo, Ph.D.
Min Zhou, Ph.D. (Walter and Shirley Wang Professor of U.S./China Relations and Communications)

Professors Emeriti
Snehendu B. Kar, Dr.P.H., M.Sc.
Don T. Nakanishi, Ph.D.

Associate Professors
Victor Bascara, Ph.D.
Lucy M. Burns, Ph.D.
Keith Lujan Camacho, Ph.D.
Grace Kyungwon Hong, Ph.D.
Vinay Lai, Ph.D.
Anna S. Lau, Ph.D.
David Wong Louie, M.F.A.
Purnima Maniak, Ph.D.
Allee Moon, Ph.D.
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Follow ing the tradition of civil rights struggles of the 1960s and 1970s, the department values the social relevance of its curriculum and its ability to address the needs of students and the community. The department also grants two concurrent M.A. degrees—one jointly with the Fielding School of Public Health and one with the Social Welfare Department. The teaching and research methods used by faculty members in the department have been interdisciplinary and comparative, with a healthy mix of quantitative, qualitative, interpretive, and applied approaches. These methods develop out of the 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 Study
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 American and/or Pacific Islander 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 Americans and/or Pacific Islanders. 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.

Asian American Studies B.A. Capstone Major
The B.A. 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 Pacific Americans. An overall grade-point average of 2.0 or better is required for admission to the major.
Asian American Studies

Preparation for the Major
Required: Two courses from Asian American Studies 10 or 10W, 20, 30 or 30W, 40, 50.

Transfer Students
Transfer applicants to the Asian American Studies major with 90 or more units must complete as many of the following courses as possible prior to admission to UCLA: two lower division Asian American studies courses or two courses that focus on Asian Americans.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: A total of 12 upper division courses, including one scholarly and creative communications in Asian American studies course (Asian American Studies 101); one multidisciplinarity course selected from 103 through M129 and M172C; one creative expression course selected from 112C, 120, 121B, 142A, 142B, 142C; one diversity course selected from 115, M116, 120, 130A, M130B, M130C, 143B, M143C, M165, 167, 168, 174A, 175A; one global/transnational course selected from 122A, 123, 170, 171A, 171B, 171C, M172C, 174B, 175B; one engaged scholarship course selected from 140SL, 141A, 141B, M143A, 195; five Asian American Studies elective courses selected from 103 through 199; and one capstone project course selected from 185 or 187.

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), and each must be at least 4 units.

Honor's Program
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 and one upper division research methods course selected from a list maintained in the Student Advising Office. Applications must be submitted no later than the end of the fifth week of classes during Winter Quarter each academic year. For application forms and further information, contact the undergraduate counselors.

Requirements
Honors students must take Asian American Studies 198A during Spring Quarter of the junior year. During Fall and Winter Quarters of the senior year, they take courses 198B and 198C, in which they write a thesis or its equivalent under the direction of a faculty member.

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.

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 undergraduate counselors, Asian American Studies Department, 3336 Rolfe Hall.

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

Required Upper Division Courses (20 units):
A total of five upper division courses as follows: one multidisciplinarity course selected from Asian American Studies 103 through M129 and M172C; one creative expression course selected from 112C, 120, 121B, 142A, 142B, 142C; one diversity course selected from 115, M116, 120, 130A, M130B, M130C, 143B, M143C, M165, 167, 168, 174A, 175A; one global/transnational course selected from 122A, 123, 170, 171A, 171B, 171C, M172C; and one engaged scholarship course selected from 140SL, 141A, 141B, M143A, 195.

No more than 4 graded units of Asian American Studies 195, 197, 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 (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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaaa /library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Asian American Studies offers the Master of Arts (M.A.) degree in Asian American Studies. Two concurrent degree programs (Asian American Studies M.A./Public Health M.P.H. and Asian American Studies M.A./Social Welfare M.S.W.) are also offered.

Asian American Studies
Lower Division Courses
10. History of Asian Americans. (5). Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. P/NP or letter grading.

10A. History of Asian Americans. (5). Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. Satisfies Writing II requirement. Letter grading.

20. Contemporary Asian American Communities. (5). Lecture, three hours; discussion, one hour. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethnic relations. P/NP or letter grading.

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

30W. Asian American Literature and Culture. (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. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. Satisfies Writing II requirement. Letter grading.


50. Asian American Women. (5). Lecture, three hours; discussion, one hour. Overview of history of feminist theory and intersection of gender, class, race/ethnicity from cross-cultural perspectives, with focus on Asian American women’s lived experiences in U.S. Topics include Asian American women’s roles in family life, work, community organization, social change, and cultural creativity. Examination of broader structural forces that affect women in society, such as racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. P/NP or letter grading.

97. Variable Topics in Asian American Studies. (1 to 2). Tutorial, one to two hours. Current topics and particular research methods in Asian American studies through readings and other assignments. May be repeated for credit. P/NP grading.

Upper Division Courses
101. Scholarly and Creative Communication in Asian American Studies. (4). Lecture, three hours. Requisites: course 10 or 10W or 20, and either 10 (or 10W) or 20, or one additional course from 30, 30W, 40, or 50. Designed for advanced junior/senior Asian American Studies majors and minors. Examination of alternative modes of expression to effectively reach academic and nonacademic audiences, including written text, visual materials, and performance. Explo-
ration of scholarly works by looking at how narratives are developed, ideas and values are framed, or knowledge is generated and transmitted, through either traditional or electronic mediums. It involves the use of discursive and popular forms, stylistic patterns, and communicative practices. Themes and content vary by term. Independent research related to course objective may be pursued with guidance from instructor. Sharing and critiquing of other student works in progress. P/NP or letter grading.


104A. Internships in Asian Pacific Communities. (4). Fieldwork, eight hours minimum. Requisite: course 104A or another Asian American studies course (except 195). Integrates academic and ethno-cultural variables. Not open to students who have used wide range of sources that may include archival materials, oral history, material culture, and more. P/NP or letter grading.

105. Historical Research Methods. (4). Seminar, three hours. Requisite: course 10. Introduction to methods used to locate and analyze source materials for research on Asian American history. Historians have used wide variety of sources that may include archival materials, oral history, material culture, and more. P/NP or letter grading.

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 history, oral history, and Hollywood films to anti-war propaganda to political speeches, Supreme Court decisions, and protest culture, to evaluate relationships between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

112A. Historical Survey of Asian American Literature. (5). [Same as English M102A.] Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature either produced from or thematically reflecting pre-1980 period. Issues include immigration, diaspora, generational conflict, appropriation of cultural traditions, ethnic/student/migration, interethnic dynamics, and social movement. Works by such authors as Edith Euston, Younghill Kang, Carlos Bulosan, Bao-Ni Huynh, Victor T. Ng, John Okada, Frank Yen, and Maxine Hong Kingston. P/NP or letter grading.

112B. Contemporary Asian American Literature. (6). Lecture, four hours. Study of Asian American plays, students required to compose one act based on their own experience using lessons learned in class. Exploration of scene study and acting exercises. 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 several dimensions of Asian American society, including politics and political relevance to current issues. How movement participants linked struggle for change with own personal transformation and growth. P/NP or letter grading.

113. Asian Americans and Law. (4). Lecture, four hours. Survey of major federal and California case and legislative law directly or specifically toward Asian Americans from 1850 to World War II and incarceration. Major subject areas include anti-Asian labor legislation, legal prohibitions against Asians’ right to testify, Executive Order 9066, and equal educational opportunity for Asians. P/NP or letter grading.

114. Asian American Education and Schooling. (4). (Same as Education M103.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.


116. Asian American Social Movements. (4). (Same as Labor and Workplace Studies M116E.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movements, social justice, environmental justice, and women’s issues. Focus on works of Asian American studies critique builds. Emphasis on works that approach study of empire through comparative racial formation, postcolonialism, transnationalism, and studies of migration. P/NP or letter grading.

117. Asian American Personality and Mental Health. (4). (Same as Psychology M107.) Lecture, four hours. Condition of Asian American mental health. Topics include culture, family patterns, achievements, stressors, resources, and immigrant and minority group status. P/NP or letter grading.

118. Asian American Religious History. (4). Lecture, four hours. Examination of religion as thematic thread within context of Asian American history, primarily during period before World War II. Basic groundings in early religions, development of role of religion in various communities. P/NP or letter grading.

119. Asian American and Pacific Islander Labor Issues. (4). [Same as Workplace Studies M119.] Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American student/ workers can play in supporting labor struggles of low-income immigrants. P/NP or letter grading.

120. Asian American History through Lenses. (4). Lecture, three hours. Exploration of documentary film, both as genre and as vehicle to present Asian American perspectives on history of Asian American individuals, communities, and cultures. 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, film screenings, guest speakers, and writing 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. Enforced requisite: course 122A. Exploration of rise of film in Pacific Islands during 20th century, with attention to history of gender and to films that engage students in textual and visual readings of feature-length films about Pacific. Discussions, film screenings, and guest speakers, with focus on aesthetics, culture, economics, gender, political, and cultural dimensions of films. P/NP or letter grading.


129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4). [Same as Community Health Sciences M140.] Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. Letter grading.


130C. Chinese Immigration. (4). [Same as Sociology M153.] Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.


133. Filipino American Experience. (4). Lecture, three hours. Not open to freshmen. Survey of immigration history, settlement patterns, and experiences of Filipino Americans. Examination of historical and con-
temporary sociocultural, economic, and political issues as they affect status of Filipino Americans and their community. P/NP or letter grading.


140SL. Power to People: Asian American and Pacific Islander Community-Based Learning. (4). Lecture, two hours; fieldwork, four hours. Enforced requisite: course 10 or 20 or 40. Service-learning course to engage and critically examine community organizing and community-based organizations (CBOs) in Asian American and Pacific Islander communities related to issues such as arts and culture, community health, and applied research. P/NP or letter grading.

141A. Asian American and Pacific Islander Leadership Development Project Part I: Leadership. (4). 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 theories, models, and skills. Progress grading (credit to be given only on completion of course 141B).”

141B. Asian American and Pacific Islander Leadership Development Project Part II: Field Studies. (4). Lecture, three hours; fieldwork, three hours. Enforced requisite: course 141A. Limited to juniors/seniors. Second term of two-term series on leadership development, with focus on Asian American, Pacific Islander, and other ethnic communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance, P/NP or letter grading.

142A. Ethnocommunications I: Introduction to Creating Community Media. (4). Seminar, three hours. Introduction to ethnocommunications theory and methodology, developed to allow diverse peoples and cultures to reclaim and promote their histories. Viewing of films from mainstream and alternative independent media for critique and discussion and basic instruction in use of digital video technology to preserve culture, communities, and experiences. P/NP or letter grading.

142B. Ethnocommunications II: Intermediate Creating Community Media. (4). Laboratory, three hours. Continuing instruction in use of digital technology and concepts and methods of Asian Pacific American community preservation. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, film editing, and editing. Completion of community profile project required. P/NP or letter grading.

142C. Ethnocommunications III: Advanced Creating Community Media. (2 to 4). Laboratory, two to three hours. Enforced requisite: course 142B. Advanced instruction in use of digital technology and concepts and methods of Asian Pacific American community preservation. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, film editing, and editing. Completion of community profile project required. P/NP or letter grading.

142D. Visualizing History: Introduction to Creating Community Media. (4). Laboratory, three hours. Rapid developments in video and digital technologies have made possible the mass production of previously neglected or submerged communities to visually document issues around their migration, settlement, cultural imagery, and artistic expressions. Introduction to ethnocommunications theory and methodology, developed to allow diverse peoples and cultures to reclaim and promote their histories, experiences, and contributions through study, analysis, and vigorous usage of new media technologies. P/NP or letter grading.

143A. Fieldwork in Asian American and Pacific Islander Communities. (4). (Formerly numbered 143A) (Same as Anthropology M139P) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, migration, multi-cultural histories, and social and political issues.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawaii. (4). Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai‘i. Investigation of historical, economic, and political contexts of migration and experiences of Asian and ethnic groups. P/NP or letter grading.

143C. Ethnic Identity and Ethnic Relations in Hawai‘i. (4). (Formerly numbered 143C) (Same as Anthropology M177P) Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai‘i. Overview of theoretical approaches to and development 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.

M160. Culture, Media, and Los Angeles. (6). (Same as African American Studies M102 and Honors Colloquium M102.) Lecture, four hours; screenings, two hours. Designed for seniors. Role of media in social construction of the self; ethnic identity; and media representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.


M164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4). (Same as Gender Studies M164A.) 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 Filipinos, Vietnamese, Singaporeans, and South Asians. Letter grading.

M165. 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) and their interconnected spheres affecting both minority and majority populations in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4). (Same as Chicana and Chicano Studies M156A and Labor and Workplace Studies M166A) Seminar, three hours. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students’ role in social movements, 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.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4). (Same as Chicana and Chicano Studies M156B and Labor and Workplace Studies M166B) Seminar, two hours. Students conduct oral histories, family histories, research on issue of immigrant students in higher education, and engage in organizing work with local immigrant rights group targeting specific immigrant populations. Letter grading.

M166C. Worker Center Movement. New Wave Organizing for Justice for Immigrant Workers. (4). (Same as African American Studies M167, Chicana and Chicano Studies M130, and Labor and Workplace Studies M167) Seminar, three hours. Development of theoretical and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker center movement in promoting multilingual and multiracial campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. Letter grading.


M168. Student-Initiated Retention and Outreach Issues in Higher Education. (4). (Same as African American Studies M118, American Indian Studies M118, and Chicana and Chicano Studies M118) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on student voice. May be repeated twice for credit. Letter grading.

M169. Constructing Race. (4). (Same as African American Studies M159P and Anthropology M159P) Lecture, three hours. Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, and contemporary experiences of various people in Hawai‘i. Investigation of historical, economic, and political contexts of migration and relations between indigenous peoples, migrants, and existing racial and ethnic groups. 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. Assignment curated for juniors/seniors. Examination of transformations that have occurred in Asian America in last four decades as consequence of global economic restructuring and new immigration. Introduction to and survey of recent studies on understanding these changes in postmodern Asian Pacific American communities, using theories of transnationalism and Asian American political and racial history. Readings and discussion on transnational aspects of wide range of historical and contemporary topics in context of Asian/Asian American experience. Building of linkages between roots of social constructions of race and multiracial social processes that now constitute globalization Asian America. Theoretical readings assigned. P/NP or letter grading.


17.1. Critical Issues in U.S.-Korea Relations. (4). Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Korea relations in areas of political economy; security; and defense cooperation. May be repeated for credit. P/NP or letter grading.

M171D. Critical Issues in U.S.-Philippine Relations. (4). (Same as History M144C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended for seniors/juniors. Examination of complex interrelationships between U.S. colonialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in 20th century. P/NP or letter grading.


M172A. Indian Identity in U.S. and Diaspora. (4). (Same as History M172A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergency conditions; and cultural forms such as bhangra 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.

17.2B. Gender in South Asian Communities at Home and Abroad. (4). Seminar, three hours. Examination of centrality of gender to histories and identities of men and women of South Asian affiliation across multiple historical and geopolitical contexts. Focus on colonial South Asia, South Asian diasporas in U.K., South Asian Americans in U.S., and transnational South Asian public cultures. Theoretical approaches to study of South Asian in comparative frame and consideration of how transnational perpectives enable revisioning South Asian American experiences and to rethink relationship between Asian American studies, diaspora studies, and area studies. P/NP or letter grading.

M172C. Transnational Bollywood. (4). (Formerly numbered 172C) (Same as Communication Studies M172C.) Lecture, three hours; discussion, one hour. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberalization in South Asia, and in diaspora, with Asian communities in North America, U.K., and Africa. Examination of how complex relationships between Bollywood and transnational South Asian diasporas enable us to better understand South Asian American communities. P/NP or letter grading.

M173. Topics in Vietnamese Cinema and/or Literature. (4). (Same as Vietnamese M155S.) Lecture, three hours; discussion, one hour. Kith and Ethnology of Vietnam 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 not available to interested students. P/NP or letter grading.

18.5. Capstone Community-Based Research. (4). Seminar, one hour; fieldwork, three hours. Limited to senior departmental majors and minors. Designed to serve as complement to service learning requirement for major and minor and may be used to fulfill 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 collaborations collaboratively determined by instructor, students, and sponsoring organizations. Readings determined in consultation with instructor. Letter grading.

18.7. 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 pursue independent work related to course theme with guidance from instructor, then share and critique other student work in progress. Letter grading.

18.7A. Special Courses in Research Methodologies. (4, 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.

18.7B. Special Courses in Asian American Themes. (4). Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

18.7D. Special Courses in Comparative Race, Ethnicity, Gender, and Sexuality. (4). Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected issues on race, ethnicity, gender, and sexuality from comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

18.7E. Special Courses in Transnationalism and Diasporas. (4). Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

19.1A. 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.

19.1B. Topics in Asian American Themes. (4). Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

19.1C. Topics in Asian American Populations and Communities. (4). Seminar, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

19.1D. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4). Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected issues on race, ethnicity, gender, and sexuality from comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

19.1E. 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.

19.1F. Topics in Asian American Literature. (5). (Same as English M191C.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3P. Variable topics in interdisciplinary Asian American literature. Topics may include genres (auto-biography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; theories of transnational narratives and representations; intercultural, interstitial, and inter-racial 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. Training and 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. May not be applied toward departmental major or minor requirements. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Asian American Studies. (4). Tutorial, two hours; fieldwork, eight hours. Requisites: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students must select a field in which they wish to participate 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). (Same as African American Studies M195CE, American Indian Studies M195CE, Chicana and Chicano Studies M195CE, and Gender Studies M195CE.) Tutorial, one hour; fieldwork, eight to ten hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Comparative study of race, gender, and interconnections between social and work place dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Research Apprenticeship in Asian American Studies. (2 to 4). Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for undergraduates under guidance of faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Asian American Studies. (2 to 4). Tutorial, three hours. Requisites: courses 10 or 10W or 20 or comparable knowledge in Asian American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Direct 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 required. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. P/NP grading.

198A. Honors Research in Asian American Studies. (4). Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, or 30 (or 30W) and one course from 104A through M108, 187A, or 191A. Introduction to research techniques and applications of methodology in Asian American studies. Limited to seniors in U.S. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP grading.

198B-198C. Honors Researh in Asian American Studies. (4-). Tutorial, three hours. Limited to seniors in U.S. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP grading.
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 M215A/B 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 project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses


200D. Asian American Literature and Culture. (4). Seminar, three hours. Examination of questions arising from Asian American literary and cultural criticism from mid-1980s to present, with focus on assumptions, possibilities, and limitations of certain theoretical perspectives and positions that have become important in Asian American critical practice. S/U or letter grading.


215A-215B. Asian American Jurisprudence. (215A: 3 or 4/215B: 1 or 2). (Formerly numbered M215A.) Lecture, three hours. Course 215A is enforced requisite to 215B. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how American law has functioned as methods of social control, order, and surveillance in Asia and Pacific. S/U or letter grading.


M239. Race, Ethnicity, and Culture as Concepts in Praxis and Research. (4). (Same as Community-Health Sciences M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to foster designing culturally based public health programs and train culturally competent practitioners. Letter grading.

M260. Topics in Asian American Literature. (4). (Same as English M260A.) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

M261. Theorizing Third World. (4). (Same as Comparative Literature M271A.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


297B. Asian Migration to U.S. (4) Seminar, three hours. Emphasis on Asia as main regional source for international migrants. Topics include patterns and theories of international migration and their relevance to Asian experience, sending and receiving country perspectives, research and policy issues. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, three hours. Preparation: apprentice personnel 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. Unit credit may be applied toward full-time equivalence but not toward 11-course requirement for M.A. May be repeated for credit. S/U grading.

490. Writing Workshop for Graduate Students. (2). Lecture, one hour; discussion, one hour. Practice in writing reports, grant proposals, abstracts, theses, and article-length research papers. Analyzing rhetorical and stylistic features of essays in various Asian American journals helps students improve both their prose style and editorial abilities. Four units may be applied toward M.A. degree requirements. May be repeated once for credit. S/U grading.

495. Supervised Teaching of Asian American Studies. (4). Seminar, three hours. Preparation: apprentice personnel appointment as teaching assistant in Asian American studies. Designed for graduate students. Required of all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques for teaching introductory Asian American studies courses. Unit credit may be applied toward full-time equivalence but not toward course requirements for M.A. S/U grading.

596. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. S/U or letter grading.


ASIAN LANGUAGES AND CULTURES

College of Letters and Science

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Professors

William M. Bodiford, Ph.D.
Robert A. Buswell, Ph.D. (Living and Jean Stone Endowed Professor of Humanities)

Jane B. Choi, Ph.D.

Professors Emeriti

Noriko Akatsuka, Ph.D.
Ben Befu, Ph.D.
Robert C. Epp, Ph.D.
Shoichi Iwasaki, Ph.D.
Theodore D. Huters, Ph.D.
Can Lao, B.A.
Peter H. Lee, Ph.D.
Richard C. Rudolph, Ph.D.
Hartmut E.F. Scharfe, Ph.D.
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Namhee Lee, Ph.D.
Seiji M. Lippit, Ph.D.
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Sung-Deuk Oak, Th.D.

Assistant Professors

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Min Li, Ph.D.

Lecturers S.O.E.

Y.C. Chu, M.A., Emeritus
Kuo-yi Pao, M.A., M.S., Emeritus

Lecturers

Supa Angkurawaranon, Ph.D.
Chuc V. Bui, M.A.
Liancheng Chief, Ph.D.
Jane B. Choi, Ph.D.
Nenita P. Domingo, Ph.D.
Eishi Ikeda, M.A.
Seonkyung Jeon, Ph.D.
Yumiko Kawaniishi, Ph.D.
Gyanam Mahajan, Ph.D.
Jae-eun I. Mitsunaga, Ph.D.
Thu Ba Nguyen-Hoai, Ph.D.
Yoko Nogami, M.A.
Scopes and Objectives

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. Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers Master of Arts and Ph.D. degrees. At all levels of study, various major fields are possible.

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 provide 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 honors program.

At the graduate level, the department offers a program leading to an M.A. degree in several fields of Asian culture. The M.A. degree is preparatory to entrance into the Ph.D. program. The Ph.D. program, which is very selective, trains research scholars for academic careers in specialized fields.

Courses for Nonmajors

The department offers many courses in which knowledge of Asian languages is not required. A current list is available in the department office (290 Royce Hall) and at http://www.alc.ucla.edu.

Undergraduate Study

The department offers two majors in the study of Asian cultures—B.A. in Asian Humanities and B.A. in Asian Religions—and three majors in Asian literatures—B.A. in Chinese, B.A. in Japanese, and B.A. in Korean. Each course in the majors must be taken for a letter grade. The department also offers two minors—Asian Humanities minor and Asian Languages minor. Each course in the minors must be taken for a letter grade.

Students considering a major or minor in the department should consult the departmental undergraduate adviser as soon as possible in their University career, but in no case later than the point at which they are about to begin taking upper division courses. Students should select courses to fulfill major or minor requirements in consultation with the undergraduate adviser. The approved list of courses for each category of major or minor requirements is available in the department office (290 Royce Hall) and at http://www.alc.ucla.edu.

At least 24 upper division units required for the majors must be completed successfully while in residence at UCLA.

Placement in Language Courses

Students are not placed in Chinese, Japanese, and Korean 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 http://www.alc.ucla.edu 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.

Asian Humanities B.A.

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 6, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and 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) within the department.

Transfer Students

Transfer applicants to the Asian Humanities major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, 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 at http://www.admissions.ucla.edu/prospect/adm _tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper division language courses in one Asian language offered by the department and eight upper division electives within the department, including at least one course from at least four of the following areas: China, Japan, Korea, South Asia, or Southeast Asia.

Asian Religions B.A.

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 6, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

Transfer Students

Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese, or one year of Sanskrit, and one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm _tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper division language courses in one Asian language offered by the department; six upper division Asian religions courses within the department, including at least one course each concerning religions in China, Japan, Korea, and either South Asia or Southeast Asia; and two electives within the department.

Chinese B.A.

Preparation for the Major

Required: Chinese 6 or 6A or 10 or equivalent, and one course from 50, M60, M60W, 70, or 70W.

Transfer Students

Transfer applicants to the Chinese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm _tr.htm for up-to-date information regarding transfer selection for admission.
The Major

Required: Eleven courses (42 to 44 units) as follows: (1) five language courses selected from either modern Chinese (Chinese 100A and 100B and 100C or 101I, 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; (2) one literature course selected from 130A, 130B, 131, 135, 140A through 140D, C150A, 150B, 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.

Japanese B.A.

Preparation for the Major

Required: Japanese 6 or 10 or equivalent, and 50 or 70.

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 Korean civilization course.

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 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.

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.

Required Lower Division Courses (10 units): Two courses from Asian M60, M60W, M61, Chinese 50, M60, M60W, Japanese 50, 70, Korean 50, M60, South Asian M60, Southeast Asian M60.

Required Upper Division Courses (20 units): Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies). A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Asian Languages and Cultures
Required Lower Division Courses (10 units): Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 50, Japanese 50, Korean 50) or one civilization course (e.g., Chinese 5Q, Japanese 5Q, Korean 5Q) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) 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.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Asian Languages and Cultures offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Asian Languages and Cultures.

Asian

Lower Division Courses

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 B.C. 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. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/NP or letter grading.

M60. Introduction to Buddhism. (5). (Formerly numbered 60W.) (Same as Religion M60W.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3 or 3C. Knowledge of Asian languages not required. General survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

M60W. Introduction to Buddhism. (5). (Formerly numbered 60W.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3 or 3C. Knowledge of Asian languages not required. General survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

M61. Introduction to Zen Buddhism. (5). (Formerly numbered 61L.) (Same as Religion M61L.) 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.

120. Languages and Cultures of East Asia. (4). Lecture, three hours; discussion, one hour. Recommended preparation: course M60 (or Religion M60A) and knowledge of one Asian language. History and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/NP or letter grading.

120L. 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.

121. Field Methods in Asian Languages and Cultures. (4). (Formerly numbered Southeast Asian 120.) Lecture, three hours; discussion, one hour. Recommended preparation: at least one year of one Asian language. Examination and application of methodologies to better understand development and nature of culture and language by working directly with native speaker of Asian language and/or through available materials. One language per term to be selected from languages spoken in Southeast Asia, South Asia, and East Asia. May be repeated for credit. P/NP or letter grading.


126. Topics in East Asian Religions. (4). Lecture, three hours. Knowledge of Asian languages not required. In-depth examination of selected topics in one or more religious traditions of Asia. Topics vary, but may include death, gender, and state and religion. May be repeated for credit with topic change. Letter grading.

161. Buddhism across Boundaries. (4). Lecture, two hours; discussion, one hour. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Investigation of various themes in development of Buddhist traditions across historical periods as well as national and cultural boundaries, including issues of praxis, politics, and translation. Letter grading.

162. Buddhist Meditation Traditions. (4). Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of meditation in Buddhism, with emphasis on Theravada and Zen schools. Topics include various typologies of meditation, symbolic relationship between meditation and soteriology, and processes by which doctrinal innovation prompts changes in meditative praxis. Letter grading.

170A. Approaches to Study of Religion. (4). Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, historical, and philosophical approaches. Readings from primary and secondary sources of modern scholarship. Concurrently scheduled with course C270. Letter grading.

190. Research Colloquia in Asian Languages and Cultures. (1). Seminar, one hour. Corequisite: course 198A or 198B or 198C or 199. Designed to bring together advanced undergraduate students undertaking individual supervised tutorial research in seminars setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191A. Variable Topics Research Seminars: Life Writing in East Asia. (4). Seminar, three hours. Research seminar on selected topics. Readings of biographical and autobiographical work as elements of East Asian cultural traditions, with focus rotating between China, Japan, and Korea. Readings in English and relevant East Asian languages, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Buddhist Studies. (4). Seminar, three hours. Limited to juniors/seniors. Research seminar on selected topics in Buddhist studies. Readings and research leading to develop-ment of culminating project. May be repeated for credit. Letter grading.


193. Speaker Series Seminars: Asian Languages and Cultures. (2). Seminar, two hours. Limited to Undergraduate students. Introduction to latest scholarship on each of Asian studies. May be selected as an On-campus seminar presented by a guest speaker, as selected by seminar coordinator or as a selected scholarly presentation, as well as sessions with faculty adviser to discuss presentations and published works of speakers. May be repeated for credit. P/NP grading.
195. Community Internships in Asian Languages and Cultures. (4). Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community cultural or organizational setting. Students meet on regular basis with instructor and provide periodic journal reports of their experience. Final paper that combines academic research and knowledge gained from community experience required. Individual contract with supervising faculty member required. P/NP or letter grading.

198A-198B-198C. Honors Research in Asian Languages and Cultures. (4-4-4). Tutorial, three hours. Limited to junior/senior departmental majors. May be repeated for credit. Individual contract required. 198A. Preparation: one undergraduate departmental seminar. Development of honors thesis under direct supervision of faculty member. Letter grading. 198B. Enforced requisite: course 198A. Continuation of work initiated in course 198A. Presentation of research and relevant progress to supervising faculty member. 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 once with consent of 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.

202. Proseminar: Functional Approaches to Japanese/Korean Linguistics. (4). Seminar, four hours. Preparation: three years of Japanese or Korean, one year of any East Asian language, one functional linguistics course, and native ability in the language. Credit cannot be given for both this course and one of ACHJ 299 or JAS 299.

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 studies. Preparation: knowledge of one Asian language. Credit cannot be given for this course and one of ACHJ 299 or JAS 299. May be repeated for credit.


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.

210. Proseminar: Cultural and Comparative Studies. (4). Seminar, three hours. Designed for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian cultures in modern period. Readings include Western theoretical works balanced with texts taking congruent approaches to East Asian topics. S/U or letter grading.


216. Seminar: History and Asia. (4). Seminar, three hours. Designed for graduate students. Readings and discussion of major historiographical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annales school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subalterns, 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 specific topics selected by instructors. May be repeated for credit. In Progress (220A) and letter (220B) grading.

223A-223B. Seminars: Corpus Linguistics. (4-4). Formerly numbered 222A-222B. (Same as Applied Linguistics M225A-M225B). Seminar, three hours. Construction and exploitation of computerized language corpora for study of 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 (M222A) and S/U or letter (M222B) grading.

230A-230B. Seminars: Theoretical Topics in East Asian Literature. (4-4). Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Credit cannot be given for this course and one of ACHJ 299 or JAS 299. May be repeated for credit. 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. Credit cannot be given for this course and one of ACHJ 299 or JAS 299. May be repeated for credit. 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 debate probes relevance of these issues to East Asia, including theories of modernity. Focus on East 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 (Japanese, Korean, Thai) not required but not required. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian nation, and/or Southeast Asian diasporas. Critical and historical examination of literary and/or film representations connected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


265A-265B. Seminars: Selected Topics in Buddhist Studies. (4-4). Seminar, three hours. Coverage varies. May be repeated for credit. In Progress (265A) and letter (265B) grading.

270. Approaches to Study of Religion. (4). Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, political, reductionist, and other approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.

281A-281B. Field Methods for Study of East Asian Oral Traditions. (4-4). Seminar, three hours. Description and evaluation of modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural setting. Follows hands-on experience in fieldwork and archiving methods. Consideration of approaches ranging from written transcription and textualization to audio and video preservation. In Progress (281A) and S/U or letter (281B) grading.

282. Japan in Age of Empire. (4). Same as Anthropology M275 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 hardly explored area. Cross-references to anthropological, sociological, psychological, phenomenological, political, reductionist, and other approaches. Critical reading and discussion of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, phenomenological, political, reductionist, and other approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.


299. Independent Study. (2 to 6). Tutorial, to be arranged. Designed for graduate students. Guided research. In the initial year, research paper may be repeated, but only 4 units may be applied toward M.A. degree. May not be applied toward Ph.D. degree. 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.

495. Teaching Asian Languages at College Level. (4). Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures or South and Southeast Asian languages and cultures. Study in team-teaching setting, developing methodology, developing course materials, and testing. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U or letter grading.

496C. Computer Technologies for Teaching College-Level Chinese. (2). Lecture, two hours. Intended for current or potential teaching assistants in Chinese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to
current computer software and web resources. May not be applied toward degree requirements. S/U grading.

496E. Computer Technologies for Teaching College-Level East Asian Languages. (2) Lecture, two hours. Intended for current or potential teaching assistants in Korean. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

496K. Computer Technologies for Teaching College-Level Japanese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Japanese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged; 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.


598. Research for and Preparation of M.A. Thesis. (4 to 8) Tutorial, to be arranged. Maximum of 8 units may be applied toward M.A. degree requirements. S/U grading.


Chinese

Lower Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Required preparation: placement test. Designed for students who are beginners. (For students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intro-duction 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. P/NP or letter grading.

2A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1A. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better or Chinese placement test. Designed for 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. (3) 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.

4. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 3 or B with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

4A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five 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. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, five 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 4. P/NP or letter grading.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five 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 4A. P/NP or letter grading.

5C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced prerequisite: course 5 or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin. P/NP or letter grading.

6. Intermediate Modern Chinese. (5) Lecture, five 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.

6A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five 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.

6C. 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 pronunciation of standard Mandarin dialect. Completion of course 6C is equivalent to completion of course 6. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who already 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, 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. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1A, 2A, and 3A. Designed for students who already have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended prerequisite: course 3A, 4A, or 5A. Chinese placement test or courses 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 course equivalent to courses 4, 5, and 6. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course 10 is equivalent to completion of course 6. Offered in summer only. P/NP or letter grading.

50. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Knowledge of Chinese not required. Introduction and most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early scientific and technological innovation. P/NP or letter grading.

50W. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Knowledge of Chinese not required. Introduction and most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early scientific and technological innovation. Satisfies Writing II requirement. Letter grading.

M60. Introduction to Chinese Religions. (5) (Formerly numbered 60) (Same as Religion M60B) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Introduction to Chinese religions and theories 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.

M60W. Introduction to Chinese Religions. (5) (Formerly numbered 60W) (Same as Religion M61W) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 3A or 3B. Not open for credit to students with credit for course M60. 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. Satisfies Writing II requirement. Letter grading.
70. Classics of Asian Languages and Culture. (5). Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 70W. Prior knowledge of Chinese language or language other than English is not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. P/NP or letter grading.

70W. Classics of Asian Languages and Culture. (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 language or language other than English is not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. Sample texts. Letter grading.

80. Chinese Cinema: Pictures, Frames, Products, Projections. (5). Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Introduction to history and major themes of Chinese cinema. Representative films studied in contexts of culture, society, politics, and economics, with reflections on changing meanings of both Chinese and cinema. May not be repeated for credit. P/NP or letter grading.

89. Variable Topics in Chinese Culture. (4). Lecture, three hours. Knowledge of Chinese language or culture not required. Variable topics course covering many different aspects of Chinese culture. Schedule of offerings to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

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: course 100B with grade of C or better or Chinese placement test is enforced requisite to 100C. Third-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with emphasis on social sciences. Texts analyzed for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. P/NP or letter grading.

100D-100E-100F. Advanced Modern Chinese for Heritage speakers. (4-4-4). Lecture, three hours; discussion, two hours. Enforced requisite: course 6A with grade of C or better or Chinese placement test. Course 100D with grade of C or better or Chinese placement test is enforced requisite to 100E; course 100E with grade of C or better or Chinese placement test is enforced requisite to 100F. Third-year Chinese for heritage speakers. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with emphasis on social sciences. Texts analyzed for their linguistic features and social and cultural background. Readings, compositions, informal debates on topical issues, and oral presentations. P/NP or letter grading.

101A-101B. Advanced Readings in Modern Chinese. (4-4). Lecture, two hours; discussion, two hours. Enforced requisite: course 100C or 100I or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced work or research on China. Topics from magazines, journals, and books related to humanities and social sciences. Each course may be taken independently for credit. Letter grading.

102A. Advanced International Business. (4). Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Designed to improve student language skills. Topics include ground language learning in authentic social cultural settings. Oral and written business communication, social etiquettes in business conduct, Chinese economic and political background, business law and regulations, resources and environment, and business case studies. May be taken independently for credit. Letter grading.


103. Topics in Chinese Language and Culture. (4). Lecture, three hours. Chinese language and culture for special purposes. May be repeated for credit, P/NP or letter grading.

107A-C107B. Academic/Professional Chinese. (4-4). Lecture, three hours; discussion, one hour. Enforced requisite: course 101B or Chinese placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied general Chinese at advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C207A-C207B. P/NP or letter grading.

108FL. Special Studies: Readings in Chinese. (2). Seminar, two hours. Enforced requisite: course 100C or 100I or Chinese placement test. Students must be concurrently enrolled in 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. Course 110A is enforced requisite to 110B, which is enforced requisite to 110C. Grammar and readings in selected premodern texts. P/NP or letter grading.


130A-130B. Readings in Modern Chinese Literature. (4-4). Lecture, three hours; discussion, one hour. Enforced requisite: course 100B or Chinese placement test. Readings and discussion of works of modern Chinese literature. Each course may be taken independently for credit. Letter grading.

131. Writing from Margin: Global Politics of Sino-phone Literature. (4). Lecture, three hours; discussion, one hour. Readings in original language. Explores Chinese cinema as analytic trajectory for literature written in Sinitic languages by ethnic minority writers in and outside China, especially in Taiwan, Hong Kong, Malaysia, and U.S. Letter grading.

135. Language Film and Culture. (4). Lecture, two hours; discussion, one hour; film viewing, three hours. Enforced requisite: course 100C or 100I or Chinese placement test. Viewing and discussion of Chinese films, along with relevant readings in Chinese. Letter grading.


151. Chinese Literature in Translation: Modern Literature. (4). Lecture, three hours; discussion, one hour. Requisite: English Composition 1A, 1B, 1C, 1D. Knowledge of Chinese not required. Lectures and 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 Chinese postmodernism, nativism, feminism, mass culture, 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 mainland China. Examination of film style and aesthetics, as well as contextual factors of gender, politics, culture, and society. May not be repeated for credit. Letter grading.
155. Topics in Chinese Cinema. (4). Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Critical study of films from China, Hong Kong, Taiwan, and Chinese diaspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and political histories. May be repeated for credit with topic change. P/NP or letter grading.


157. Contemporary Chinese Popular Culture. (4). Lecture, three hours; discussion, one hour. Examination of various aspects of modern and contemporary popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media include literature, print culture, cinema, martial arts film and fiction, television, radio, pop music, visual arts, fashion, advertising, and cyberculture. P/NP or letter grading.


165. Introduction to Chinese Buddhist Texts. (4). Lecture, three hours; discussion, one hour. Recommended requisite: course 100A or 110B or Japanese 110 or Korean 100A or Chinese placement test. Readings in premodern Buddhist texts written in literary Chinese and translated from Sanskrit, and indigenous exegetical materials, Chinese apocryphal scriptures, and Ch'an writings. Problems in translation from Indic-European languages into Chinese; evolution of Chinese Buddhist terminology. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.


C175. Introduction to Chinese Thought. (4). Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of Chinese thought as represented in the period leading up to the early Han periods (circa 1000 to 200 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. Concurrently scheduled with course C275. Letter grading.

176. Neo-Confucianism. (4). Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Examination of movement to revitalize and reinterpret 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 mythology, with focus on examples preserved in variety of early texts, with evidences 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. Explores origins of trade and piracy at the heath of globalization (13th to 17th century), with focus on continuity and transformation in Asian trade network in response to early global trade. Examination 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 production and trade with international piracy in traditional historiography generates new angle for understanding dynamics of early global trade and industries. Letter grading.

183. Archaeological Landscapes of China. (4). (Same as Anthropology M116A.) Lecture, three hours; discussion, one hour. Declasified space images from Cold War era and open remote sensing data of 21st century provide new opportunities for studying landscape from prehistory to modernity. Examination of landscape from satellite images and on-ground 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. 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 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. Topics include: 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 Western literature. Letter grading.


186. Archaeology in China. (4). Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Early Chinese study of their own past, types of artifacts, beginnings of scientific archaeology, and surveys of major excavations of sites at all periods. Letter grading.

187. Chinese Etymology and Calligraphy. (4). Lecture, three hours; discussion, one hour. Recommended requisite: course 3. Coverage of (1) development of Chinese writing from pottery inscriptions 6,000 years ago to modern simplified forms and studies of six scripts that were used to form Chinese characters and (2) aesthetic training of calligraphic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common form of handwriting. Letter grading.


191B. Variable Topics Research Seminars: 20th-Century China and Taiwan. (4). Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in modern and contemporary literature and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Chinese. (4). Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized instruction in Chinese. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. See undergraduate adviser. P/NP or letter grading.

199. Variable Topics Research Seminars: Asian Languages and Cultures. (4-4). Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cinema. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, major genres and artists, other arts and

Graduate Courses

200A. Research Methods in Chinese. (4). Seminar, three hours; field work. Required for research and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliographies; biographical, biographical, and historical sources; encyclopedias; anthologies; rare editions; illustrated matter and calligraphy. Letter grading.

200B. Proseminar: Premodern Chinese Literature. (4). Seminar, three hours; film viewing. Major bibliographical and methodological resources in field of premodern Chinese literature, with focus on research tools in field and on scholarship in English on major literary genres, periods, and authors. Letter grading.

200C. Proseminar: Modern Chinese Literature and Cinema. (4). Seminar, three hours. Introduction to major bibliographical and methodological resources in fields of modern Chinese literary and cinematic studies, with focus on theoretical tools, historical knowledge, and critical trends. Letter grading.


202. China Studies: Discipline, Methods, Debates. (2). (Same as History M202.) Seminar, two hours. Introduction to major methodologies practiced in humanities and social sciences disciplines. S/U grading.


C207A-C207B. Academic/Professional Chinese. (4-4). Lecture, three hours; discussion, one hour. Enforced requisite: course 101B or Chinese placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied general Chinese at advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C107A-C107B. S/U or letter grading.

209. Issues in Sinophone Literature. (4). Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, written in Sinitic languages by ethnic minority writers in China, and literature written by those living outside China across world, especially in Malaysia, Taiwan, Singapore, and the U.S. S/U or letter grading.


211A-211B. Seminars: Classical Chinese Poetry. (4-4). Seminar, three hours. Preparation: reading knowledge of literary Chinese. Topics rotate among major textual traditions and chronological periods. Emphasis on philological, critical, and historical approaches. May be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.

212. Topics in Chinese Poetry. (4). Readings/discussion, three hours. Selected readings from classical poetic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit with consent of instructor. Letter grading.

213A-213B. Chinese-Language Cinemas. (4-4). Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cinema. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, major genres and artists, other arts and
1. **Introductory Filipino.** (5) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. **Introductory Filipino.** (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. **Introductory Filipino.** (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. **Intermediate Filipino.** (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. **Intermediate Filipino.** (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. **Intermediate Filipino.** (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

7. **Elementary Filipino:** Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equiva- lent 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.

**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 toward greater proficiency and fluency 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 subject competence in spoken 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 short stories view themselves and society, historically and diachronically. Sample of short stories

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**Filipino Lower Division Courses**

1. Introduction to Chinese, (5) Lecture, two hours; discussion, three hours. Coverage of classical Chinese literature, art, and culture. Readings in classical Chinese literature. May be repeated for credit with topic change. Concurrently scheduled with course C115. Letter grading.


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**Filipino 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 toward greater proficiency and fluency 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 subject competence in spoken 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 short stories 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.


Hindi-Urdu Lower Division Courses

1. Introductory Hindi-Urdu. (5). 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. Introductory Hindi-Urdu. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Hindi-Urdu. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Hindi-Urdu. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Hindi-Urdu. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Hindi-Urdu. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Indonesian. (4-4-4). Lecture, three hours. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students read authentic materials in Indonesian concerning various issues. P/NP or letter grading.


Japanese Lower Division Courses

1. Elementary Modern Japanese. (5). Lecture, two hours; discussion, three hours. Not open to students who have learned enough Japanese to qualify for more advanced courses. Coverage of basic Japanese grammar, with emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

2. Introductory Indonesian. (5). Lecture, five hours. Enforced 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. Introductory Indonesian. (5). Lecture, five hours. Enforced 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. 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.

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.


70. Images of Japan: Literature and Film. (5). Lecture, three hours; discussion, one hour. Knowledge of Japanese language or literature not required. Introduction to visual and textual images of Japan’s literary heritage, including documentary films and feature films based on Japan’s literary classics. Letter grading.

90. Japanese Civilization. (5). Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Introduction to Japanese aesthetics in theory and practice, including study of ritual and specific trends in Japanese aesthetics such as imperfection, asymmetry, suggestion, miniaturization, indirectness, wabi, sabi, hiekare, yugen, as reflected and practiced in tea ceremony. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Japanese. (4-4-4). Lecture, five hours; Enforced requisite: course 6 or with grade of C or better or Japanese placement test. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students read authentic materials in modern Japanese, with emphasis on comprehension and structural analysis. Offered in summer only. P/NP or letter grading.


110. Intermediate Modern Japanese: Intensive. (5). Lecture, ten hours; discussion, ten 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.

115. Japanese Civilization. (5). Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Introduction to Japanese aesthetics in theory and practice, including study of ritual and specific trends in Japanese aesthetics such as imperfection, asymmetry, suggestion, miniaturization, indirectness, wabi, sabi, hiekare, yugen, as reflected and practiced in tea ceremony. P/NP or letter grading.
vanced courses. May be taken concurrently with course 100A. Development of overall competency in understanding grammar and practical expression in written and oral Japanese, as well as expansion of knowledge in social, cultural, and historical aspects of Japanese society. (4).

104. Business Japanese. (4) (Formerly numbered 103.) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S or Japanese placement test. Designed to improve skills in Japa- nese-English business communication, as well as to bring students to a sufficient level of Japanese to be able to function effectively in business situations in Japanese. Should not be taken by students who have already completed course 100A or 100B. Letter grading.

108FL. Special Studies: Readings in Japanese. (2) Seminar, two hours. Enforced requisite: course 100C or 100I or Japanese placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Japanese to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.


110A. Introduction to Classical Japanese: Basic Grammar. (4) (Formerly numbered 110.) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S or Japanese placement test. Introduc- tion to fundamentals of classical Japanese. Grammar and reading of selected premodern texts. P/NP or letter grading.

110B. Introduction to Classical Japanese: Reading Proficiency. (4) (Formerly numbered 110.) Lecture, three hours; discussion, one hour. Enforced requisite: course 100A or 100S or Japanese placement test. Further development of advanced knowledge of classical Japanese grammar with emphasis on reading of selected premodern texts. P/NP or letter grading.


M120. Introduction to Japanese Linguistics. (4) (Same as Linguistics M116.) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or 100S or Japanese placement test. To familiarize student with Japanese language, grammar and linguistic expressions. P/NP or letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4). Seminar, three hours. Enforced requisite: course 100C or 100I or Japanese placement test. Readings and discussion of works by modern Japanese writers. Each course may be taken independently for credit. Letter grading.

C131. Nation in Modern Japanese Intellectual Dis- course. (4) Lecture, three hours. Enforced requisite: course 100C or 100I or Japanese placement test. Reading of texts in original Japanese, with focus on late Taisho and early Showa periods. Various ways that modern Japanese thought (mizuko) course through discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C231. Letter grading.


151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Requi- site: 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.

154. Postwar Japanese Cinema through Literature. (4) Lecture, three hours; discussion, one hour. Requi- site: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D, Knowledge of Japanese not required. Use of fiction and film to ex- plore Japanese culture in postwar era in broad cross-disciplinary and cross-cultural context. P/NP or letter grading.


M156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.

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130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4). Seminar, three hours. Enforced requisite: course 100C or 100I or Japanese placement test. Readings and discussion of works by modern Japanese writers. Each course may be taken independently for credit. 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 kitsune, Buddha, bodhisattvas, Yin-yang diviners, ghosts, various types of demons, shape-shifting foxes and raccoon dogs, snakes, and dragons. Exploration of different cultural representations of the supernatural 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 100A or Chinese 165 or Japanese placement test. Examination of broad selection of popular fiction and theater from late 17th to early 19th centuries. Focuses on historical and cultural context (e.g., rise of floating world genre) of entertainment, including pleasure quarters, theater district, and realm of fiction. Letter grading.

C173. Imperial Culture in Ancient Japan. (4). Lecture, three hours; discussion, one hour. Requisite: course 100A or Chinese 165 or Japanese not required; basic knowledge of Japanese history and culture assumed. Examination of formation of imperial-style state and its culture in Asuka, Nara, and Heian periods (7th- to 10th-century Japan). Literary genres include myths, historical narrative, poetry, short tales, and diaries. Concurrently scheduled with course C273. Letter grading.


175. Introduction to Japanese Thought. (4). Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. General survey of Japanese thought from early to modern times, including analyses of Shinto mythology, forms of Confucianism, ethic of bushido, Noh Theatre, Meiji School, and modern Japanese in losophers such as Nishida Kitaro and Watsuji Tetsuro. Attention also to representative types of contemporary thinking about Japanese thought, especially questions of "national" as recognized by "Japane- se" in aesthetics, ethics, and philosophy. Letter grading.


191B. Variable Topics Research Seminars: Modern Japan. (4). Seminar, three hours. Research seminar on selected topics on modern Japan. Reading, dis- cussion, and development of culminating project. May be repeated for credit. Letter grading.


197. Individual Studies in Japanese. (4). Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized in- struction 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


201A-201B. Introduction to Reading Japanese Acad- emic Texts. (4-4). Lecture, three hours. Requisite: course 7 or 100A. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern Japanese-language academic texts, both prewar and postwar, with focus only on reading; stu- dents who have already improved other skills should take additional courses. S/U or letter grading.


224A-224B. Seminars: Selected Topics in Japa- nese Discourse Linguistics. (4-4). Lecture, three hours. Requisite: course CM122. Critical reading and discussion of selected topics in Japanese discourse linguistics. May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

225A-225B. Seminars: Linguistic Analysis of Ja- panese Narratives. (4-4). Seminar, three hours. Requi- site: course CM122. Analysis of selected modern and classical Japanese narratives on exploration of how grammatical features such as tense, as- pect, voice, and point of view are utilized to achieve desired literary effects. May be repeated for credit with consent of instructor. In Progress (225A) and letter (225B) grading.

226. Survey of Functional Linguistics. (4). Lecture, four hours. Survey of recent empirical and theoretical research in several areas of functional linguistics, that has served as backbone for development of Japa- nese discourse linguistics. May be repeated for credit with consent of instructor. S/U or letter grading.


228. Fundamentals in Discourse Data Analysis. (4). Lecture, three hours. Designed to prepare students to conduct research in natural discourse data, both spoken and written, focusing on research of discourse taxonomy, data collection methodolo- gies, data organization, analytical frameworks. Letter grading.

C231. Nation in Modern Japanese Intellectual Dis- course. (4). Lecture, three hours. Enforced requisite: course 100C or 100L or Japanese placement test. Reading of texts in original Japanese, with focus on late Taisho and early Showa, looking at ways that nation (minzoku) was discussed in intellectual discourses of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course CM121. Letter grading.

235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4-4). Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.
M276. Reading Modern Bodies. (4). (Same as Comparative Literature M276.) Seminar, three hours. Designed for graduate students. Exploration of construction of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japan. S/U or letter 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.


C27A-C27B. Seminars: Japanese Ritual Arts. (4-4). Seminar, three hours. Reading knowledge of Japanese not required. Designed for graduate students. Examination of changes related to notion of kaihitsu (kias of music, dance, storytelling, visual and auditory presentation, drama, mimetic and competitive acrobatic arts, with special emphasis on religious magical purposes and symbolic structure of these arts. In Progress (270A) and letter (270B) 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. Continuation of course 1. P/NP or letter grading.

2. Intermediate Korean for Korean-Heritage Speakers. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students who are from Korean-speaking family background and have some limited knowledge of Korean. Emphasis on formal aspects of standard Korean (basic grammar, reading, daily conversation, polite forms, basic writing). P/NP or letter grading.

3. Elementary Modern Korean. (5). Lecture, two hours; discussion, three hours (when scheduled). 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.

4. Intermediate Modern Korean. (5). Lecture, three hours; discussion, two 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. Conversation, composition, and readings with structural analysis in modern Korean. P/NP or letter grading.

5. Intermediate Modern Korean. (5). Lecture, three hours; discussion, two hours. Enforced requisite: course 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. Designed for students who seek training in written components of standard Korean (spelling, writing, reading, and grammar) at intermediate level. Continuation of course 4A. P/NP or letter grading.

6. Intermediate Modern Korean. (5). Lecture, three hours; discussion, two hours. Enforced requisite: course 5 with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (spelling, grammar, readings, and conversation in modern Korean). P/NP or letter grading.

7. Intermediate Modern Korean. (5). Lecture, five hours. Enforced requisite: course 4A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students who seek training in written components of standard Korean (spelling, writing, reading, and grammar) at intermediate level. Continuation of course 5. P/NP or letter grading.

8. Intermediate Modern Korean. (5). Lecture, five hours. Enforced requisite: course 5 with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (spelling, grammar, readings, and conversation in modern Korean). P/NP or letter grading.

9. Intermediate Modern Korean. (5). Lecture, five hours. Enforced requisite: course 4A with grade of C or better or Korean placement test. Not open to students who attended elementary school in Korea for more than one year or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (spelling, grammar, readings, and conversation in modern Korean). P/NP or letter grading.
rean). Continuation of course 5A. Completion of course 6A is equivalent to completion of course 6. P/NP or letter grading.

8. Elementary Korean: Intensive. (15). Lecture, 10 hours; discussion, 10 hours. Open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Conversation, composition, and readings with structural analysis in modern Korean. Offered in summer only. P/NP or letter grading.

10. Intermediate Modern Korean: Intensive. (15). Lecture, 10 hours; discussion, 10 hours. Recommended preparation: course 3, 5A, or 5B, or Korean placement test, or courses equivalent to elementary-level Korean, Second-year Korean, for students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6.


40. Korean Wave: Globalization of South Korean Popular Culture. (5). Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of South Korean popular culture in transnational social and political contexts. P/NP or letter grading.

8. Elementary Korean: Intensive. (15). Lecture, 10 hours; discussion, 10 hours. Open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Conversation, composition, and readings with structural analysis in modern Korean. Offered in summer only. P/NP or letter grading.

40. Korean Wave: Globalization of South Korean Popular Culture. (5). Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of South Korean popular culture in transnational social and political contexts. P/NP or letter grading.


M60. Introduction to Korean Religions. (5). Formerly numbered 60). (Same as Religion M60C.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, Tonghak, and some new religions—with focus on religious discourse, religious rituals, and religious practices. P/NP or letter grading.

103A-103B-103C. Readings in Sino-Korean Characters. (4-4-4). Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Exposure to transnational social and political contexts. P/NP or letter grading.


CM120. Structure of Korean. (4). Formerly numbered C150. (Same as Linguistics CM120.) Lecture, two hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean as a linguistic universal, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course CM220. Letter grading.


150. Korean Literature in Translation: Classical. (4). Lecture, three hours. Recommended preparation: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Reading and discussion of major modern Korean literary texts. Each course may be taken independently for credit. P/NP or letter grading.


154. Introduction to Korean Cinema. (4). Lecture, two hours; discussion, one hour; film viewing, two hours. Knowledge of Korean not required. Critical and historical examination of Korean cinema from its inception to present. P/NP or letter grading.


165. Introduction to Korean Buddhist Texts. (4). Lecture, three hours; discussion, one hour. Recommended preparation: course 100A or Chinese 110C or Korean placement test. Introduction to reading pre-modern Korean Buddhist texts written in Sino-Korean.
and taken from indigenous doxographic materials and philosophical writings, Korean Buddhist apocryphal scriptures, native exegetical commentaries, and Son (Zen) texts. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. Letter grading.

172. Topics in Korean Christianity. (4). Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical development of Christi-anity in Korea, beliefs and practices, impact of Christi-anity on modern Korean culture and society. Cov-erage varies. May be repeated for credit with consent of instructor. Letter grading.

175. Introduction to Traditional Korean Thought. (4). Lecture, three hours; discussion, one hour. Knowl-edge of Korean not required. General survey of Ko-rean thought from earliest records to 19th century, in-cluding shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4). Lecture, three hours. Enforced prerequisite: course 100C or Chinese 110C or Korean placement test. Reading in premodern Koryo and Choson texts on politics, soci-ety, and human values. Texts may be read in either Sino-Korean or literary Chinese. May be re-peated with consent of instructor. P/NP or letter grading.


180A-180B-180C. Cultural History of Korea. (4-4-4). Lecture, three hours; discussion, one hour. Requis-ite: course 100C. Knowledge of Korean not required. Survey of Korean thought in late 19th and 20th centuries, in-cluding religious thought, political thought, feminism, nationalism, and economic thinking and practice. P/NP or letter grading.


191A. Variable Topics Research Seminars: Tradi-tional Korea. (4). Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through mid-19th century. Coverage varies from term to term and includes such topics as state formation, international relations, or "sprouts of capitalism" thesis. Reading, discussion, and development of culminating project. May be re-peated for credit. Letter grading.

191B. Variable Topics Research Seminars: Con-temporary Korean Society and Culture. (4). Sem-inar, three hours. Prerequisite: course 177 or 180C. Re-search seminar on selected topics in modern Korean history. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Korean. (4). Tutorial, to be arranged. Limited to juniors/seniors and graduate stu-dents who desire more advanced or specialized in-struction in Korean. 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.

184. Women of Premodern Korea. (4). Lecture, three hours; discussion, one hour. Knowledge of Ko-rean not required. Examination of premodern Korean history from 1260 through 1876; women’s roles in soci-ety within context of political and institutional in-stitutions. Consideration of how gender roles and identities were socially (re)con-structed over time, with focus on continual negotia-tion by women and men within larger processes of political, social, and cultural changes such as forma-tion of centralized bureaucratic systems, rise of aris-tocratic social order, and propagation of Confucian social values. Letter grading.

186B. Women of Modern Korea. (4). Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of modern Korean history from perspective of women since mid-19th century. Consideration of how gender roles and identities were socially (re)constructed over time, with focus on con-tinual negotiation by women and men within larger processes of political, social, and cultural transforma-tions. Discussion of changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratiza-tion, and economic development. P/NP or letter grading.


M186. Korea and Vietnam: Comparative Modern Histories. (4). (Same as Vietnamese M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, by key themes that serve as basis for comparison. Modern experi-ences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transition to modernized societies within con-text of colonialism, and shared experiences of World War II. Both were also divided after war between communistic regime and anti-communis-tic 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.


201. Reading/Korean Language/History. (4). Seminar, three hours. Advanced course that explores Ko-rean cultural through in-depth reading of Korean-lang-ue texts and/or visual documents. Topics include literary essays, folk literature, history, language, and society. May be repeated for credit. S/U or letter grading.

202A-C202B-C202C. Reading Korean Academic Texts. (4-4-4). Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage of Korean texts on topics concerning Korean history, culture, and society. Each course may be taken independently for credit. Con-currently scheduled with courses C102A-C102B-C102C. S/U or letter grading.

210. Thought and Society in Korea. (4). Readings/ discussion. Three hours; discussion, one hour. Preparation: reading knowledge of Korean. Designed for graduate students. Critical analysis of list of topics that serve as basis for comparison. Modern experi-ences of colonized Korea and Vietnam have many significant parallels, including imposition of colonial control, transition to modernized societies within con-text of colonialism, and shared experiences of World War II. Both were also divided after war between communistic regime and anti-communis-tic 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.

212. 19th-Century Korea. (4). Seminar, three hours; discussion, one hour. Requisite: course 180B or 180C. Seminar covering crucial period from coro-nation of Sunjo in 1800 to annexation of Korea by Japan in 1910, including major historical scholarship on political, diplomatic, social, economic, intellectual, and cultural history. Letter grading.

215. Korean Literary History. (4). Lecture, three hours. Designed for graduate students. Critical history of de-vlopment of traditional Korean literature, with em-phasis on canon and ideology, literary systems, hier-archy of genres, rise of literary kinds and forms, peri-odization, and critical issues in literary history. One area of particular focus to be national 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 consent of instructor. Knowledge of modern Korean expected. Consideration of basic features of Korean language texts and/or visual documents. Topics may include modern Korean literature, and survey of basic bibliographical material. In addition, introduc-tion to most important primary sources in student’s field of specialization. Letter grading.

250A-250B-250C. Topics in Korean Cultural History. (4). Seminar, three hours. Advanced course that explores Ko-rean culture through in-depth reading of Korean-lang-ue texts and/or visual documents. Topics include literature, folklore, folk literature, history, language, and society. May be repeated for credit. S/U or letter grading.

C220A-C220B-C220C. Seminars: Selected Topics in Korean Linguistics. (4-4-4). 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.


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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 produce publishable translations. May be repeated once with consent of instructor. In Progress (230A) and letter (230B) 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 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.


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 Course

M60. Religion in Classical India. Introduction. (5). (Formerly numbered 60). (Same as Religion M80D). Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhism—paying equal attention to the words what learned Buddhists wrote and ordinary Buddhists said, and how it compares to other modern writing systems. P/NP or letter grading.

110A. Elementary Sanskrit. (4). Lecture, three hours. Introduction to script and grammar, with reading exercises and attention to Sanskrit for understanding of other Indo-European languages. P/NP or letter grading.


110C. Advanced Sanskrit. (4). Lecture, three hours. Requisite: course 110B. Reading of entire Bhagavadgita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Readings in Sanskrit. (4). Lecture, three hours. Requisite: course 110C. Extensive reading in such texts as best serve students needs. May be repeated for credit with consent of instructor. P/NP or letter grading.

150. Classical Indian Literature in Translation. (4). Lecture, three hours. Knowledge of Sanskrit language not required. Survey of some landmarks of classical Indian literature from second millennium B.C.E. into second millennium C.E., including both poetry and prose, “high” art and more popular genres, and secular and religious texts, examined in their social and institutional contexts. P/NP or letter grading.


CM160. Buddhism in India. (4). (Formerly numbered C160). (Same as Religion M161D). Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but on archaeological, art historical, and inscriptive sources. Examination of both formal doctrine and actual practices and on what learned Buddhists did and what ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Southeast Asian Lower Division Courses


M60. Religious Traditions in Southeast Asia. (4). (Formerly numbered 60). (Same as Religion M20E). 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.

70. Modern Thai Language and Literature. (5). Lecture, three hours; discussion, one hour. Introduction to modern literatures of Southeast Asia. Designed to expose students to range of literatures, predominantly novels and short stories, that were written across this region in response to dramatic changes caused by colonialism and its aftermath. P/NP or letter grading.

70. Modern Southeast Asian Literature. (4). Lecture, three hours. Knowledge of Southeast Asian languages not required. Exploration of diversity of Southeast Asian literatures in such areas as traditional culture, modernization, politics, and literature through modern literary texts. P/NP or letter grading.

Upper Division Courses

130. Topics in Southeast Asian Literature. (4). Lecture, three hours. Requisite: one course from Comparative Literature 1A, 1B, 1C, 1D, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Knowledge of Southeast Asian languages not required. Advanced exploration of Southeast Asia through in-depth reading of texts from region. Topics include censorship, politics, language, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4). Lecture, three hours; discussion, one hour. Critical issues related to major religious traditions in Southeast Asia, with emphasis on reading and reflecting on recent scholarship regarding complex interactions between religion, state, and society in contemporary Southeast Asia. P/NP or letter grading.

140. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4). Lecture, three hours; discussion, one hour. Recommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. P/NP or letter grading.

157. Gender Issues in Southeast Asia. (4). Seminar, three hours. Critical examination of gender issues in one or more Southeast Asian countries as they connect to social historical contexts nationally, regionally, or globally. May be repeated for credit. P/NP or letter grading.

170A-170B-170C. Topics in Southeast Asian Studies. (4-4-4). Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and/or visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

197. Individual Study in Southeast Asian. (4). Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or specialized treatment of one language offered in program beyond introductory and intermediate courses currently offered. 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 academic coordinator. P/NP or letter grading.

Vietnamese

Lower Division Courses

1. Introductory Vietnamese. (5). Lecture, five hours. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Vietnamese. (5). Lecture, five hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Thai. (5). Lecture, five hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3R. Thai Scripts. (5). Lecture, five hours. Recommended preparation: speaking and listening skills in Thai and Thai placement test. Training in reading and writing at introductory level. Completion of course 3R is equivalent to completion of one year of college-level Thai. P/NP or letter grading.

4. Intermediate Thai. (5). Lecture, five hours. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Thai. (5). Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5R. Thai Speech. (5). Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Advanced Thai. (4-4-4). Lecture, three hours. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Thai grammar and vocabulary acquired at beginning and intermediate levels. Coverage of more advanced topics on various aspects of Thai society. Broadening of skills in conversation and composition. Reading of selected texts and authentic materials. P/NP or letter grading.

100. Advanced Tutorial Instruction in Thai. (2). Tutorial, two hours. Requisite: course 6 or Thai placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading.


102. Intermediate Vietnamese. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition. Reading of selected texts. P/NP or letter grading.

103. Intermediate Vietnamese. (5). Lecture, two hours; discussion, three hours. Enforced requisite: course 6 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition. Reading of selected texts. P/NP or letter grading.

104. War in Vietnamese Popular Culture. (5). Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporas. Materials include theoretical and other scholarly texts, as well as literature, music, visual art, films, and comics. Reading of scholarly writings for argument, date, and methods, and learning to apply theoretical frameworks in readings and lectures to analysis of popular cultural productions. P/NP or letter grading.

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. Each course may be taken independently for credit. P/NP or letter grading.
109. Advanced Tutorial Instruction in Vietnamese. (2) Tutorial, two hours. Requisite: course 5 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.

M155. Topics in Vietnamese Cinema and/or Literature. (4) (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. P/NP or letter grading.

155FL. Readings in Vietnamese. (2) Seminar, two hours. Requisite: course M155. Additional work in Vietnamese to augment work assigned in course M155, including reading, writing, and other exercises in Vietnamese. P/NP 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 notions 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 1858. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture from origins 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, 1858 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 during period of extended 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, relation 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 anticom- munist 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 Course

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.

ASTRONOMY

See Physics and Astronomy

ATMOSPHERIC AND OCEANIC SCIENCES

College of Letters and Science

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Professors

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Alexander D. Hall, Ph.D.
Kuo-Nan Liou, Ph.D.
Lawrence R. Lyons, Ph.D.
James C. McWilliams, Ph.D. (Louis B. Slichter Professor of Geophysics and Planetary Physics)
Carlos R. Mechoso, Ph.D.
J. David Neelin, Ph.D.
Yongkang Xue, Ph.D.

Professors Emeriti

Akio Arakawa, D.Sc.
James G. Edinger, Ph.D.
Michael Ghil, Ph.D.
George L. Slosce, Ph.D.
Richard P. Turco, Ph.D.

Associate Professors

Curtis A. Deutsch, Ph.D.
Qinbin Li, Ph.D.

Assistant Professors

Jasper F. Kok, Ph.D.
Jonathan L. Mitchell, Ph.D.
Ulrike Seibt, Ph.D.
Andrew L. Stewart, Ph.D.
Aradhna K. Tripati, Ph.D.

Lecturer

Jeffrey K. Lew, Ph.D.

Adjunct Professors

Yi Chao, Ph.D.
Randall R. Friedl, Ph.D.
Lawrence W. Harding, Ph.D.
Duane E. Waliser, Ph.D.

Adjunct Assistant Professors

Holger F. Brix, Ph.D.
Wolfgang Buermann, Ph.D.
Aradhna K. Tripati, Ph.D.
Anita Leinweber, Ph.D.

Scope and Objectives

The atmospheric and oceanic sciences present a wide variety of problems of compelling scientific interest and increasing social concern. This is exemplified by efforts to improve air quality, dependences caused by severe storms and floods, attempts to control or modify weather phenomena, problems of long-range weather forecasts, climate change, and predictions, and expanding scientific frontiers into our outer atmosphere and atmospheres of other planets.

The Department of Atmospheric and Oceanic Sciences offers a broad curriculum in dynamic and synoptic meteorology, atmospheric physics and chemistry, and upper atmosphere and space physics.

The Bachelor of Science degree qualifies students for entry-level technical positions or representatives valuable background for training in other professions. Master of Science and Ph.D. degree holders work in universities, research centers, laboratories, and government services and, increasingly, in the rapidly burgeoning private sector.

Undergraduate Study

Atmospheric, Oceanic, and Environmental Sciences B.S.

Preparation for the Major

Required: Two courses from Atmospheric and Oceanic Sciences 1/1L, 2/2L, 3/3L; Chemistry and Biochemistry 14A and 14B, or 20A and 20B; Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, 32B, 33A, and 33B; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, and 4BL, or 6A, 6B, and 6C; Program in Computing 10A.

Students interested in pursuing graduate studies in atmospheric and oceanic sciences or obtaining employment with the National Weather Service or other government agencies are strongly urged to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

Transfer Students

Transfer applicants to the Atmospheric, Oceanic, and Environmental Sciences major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, and one C++ programming course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admission transfer.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Four courses from Atmospheric and Oceanic Sciences 101, 102, 103, 104, 105, 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.

Students preparing for graduate studies in atmospheric chemistry should take Chemistry and Biochemistry 20B, 103, Mathematics 115A, 136, Physics 131, 132; students preparing for graduate studies in atmosphere and space physics should take Mathematics 115A, Physics 110A, 110B, M122; students preparing for graduate studies in atmospheric
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.

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 appropriate courses from within the department and related disciplines. For further information, contact the department at (310) 825-1217.

Required Courses (28 units): Seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, C110, C115, M120, 125, 130, 141, 145, 150, C160, C170, 180 and (2) four additional courses, two of which must be upper division, from any of the above atmospheric and oceanic sciences courses beyond the minimum four required or from Atmospheric and Oceanic Sciences 1, 2, 3, 186 (must be taken twice), Chemistry and Biochemistry 103, 110A, 110B, 113A, C113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 122, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 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, C113B, 114; (2) atmospheric and oceanic sciences 101, 104, Ecology and Evolutionary Biology 109, C119A, 122; (3) atmospheric dynamics: Atmospheric and Oceanic Sciences 101, 102, 125, Physics 112, 131, 132; (4) atmospheric dynamics and mathematical modeling: Atmospheric and Oceanic Sciences 101, 125, 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.

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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, course descriptions, and notices of the schools, departments, and programs.

Graduate Degrees

The Department of Atmospheric and Oceanic Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Atmospheric and Oceanic Sciences.

Atmospheric and Oceanic Sciences

Lower Division Courses

1. Climate Change: From Puzzles to Policy. (4). Lecture, three hours; discussion, one hour. Overview of fundamentals of Earth’s climate, including greenhouse effect, water and chemical cycles, outstanding features of atmospheric and ocean circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and El Niño. Importance of climate science and prediction to society, with emphasis on science’s role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/N or letter grading.

2. Air Pollution. (4). Lecture, three hours; discussion, one hour. Causes and effects of high concentrations of pollution in atmosphere. Topics include nature and sources of gaseous and particulate pollutants, their transport, dispersion, modification, and removal, with emphasis on atmospheric processes on scales ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/N or letter grading.


4. Introduction to Atmospheric Environment Laboratory. (1). Lecture, one hour. Enforced corequisite: course 3. Investigations and demonstrations supporting material in course 3, including greenhouse effect, atmosphere and ocean circulation, past, present, and future climates, and role of science in climate change politics. P/N or letter grading.

5. Climates of Other Worlds. (4). Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and their satellites in solar system using information obtained 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/N or letter grading.

Upper Division Courses

M100. Earth and Its Environment. (4). Same as Environment M111). Lecture, three hours. Overview of Earth as system of distinct physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

98. Lower Division Seminar. (4). Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/N or 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. Options to gain an understanding of new science of climate modeling to understand and predict these changes. Physical processes in climate system. Atmospheric and oceanic circulation. El Niño and year to year climate prediction. Greenhouse effect and global warming. P/N or letter grading.


104. Fundamentals of Air and Water Pollution. (4). Lecture, three hours; discussion, one hour. Requisite: Chemistry 14B or 20B. Chemistry and physics of air and water pollution, including photochemistry, acid rain, air pollution meteorology and dispersion, groundwater and surface water pollution, chemical cycling, air/water interface, global atmospheric change. Letter grading.

M105. Introduction to Chemical Oceanography. (4), Same as Ecology and Evolutionary Biology M139.) Lecture, three hours; discussion, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of
physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes, and internal geologic processes.


C115. Mesoscale Meteorology. (4). Lecture, three hours. Requisite: course 110. Illustrations of phenomena with talent levels ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design of field project. Concurrently scheduled with course C228. P/NP or letter grading.


145. Atmospheric Physics: Radiation, Clouds, and Aerosols. (4). Lecture, three hours; discussion, one hour. Requisites: Physics 1A, 1B, and 1C, or 6A, 6B, and 6C. Theory and application of atmospheric radiation, cloud physics, and atmospheric processes. Topics include radiative transport, cloud and rain formation, aerosol properties, impact of aerosol and clouds on climate. Letter grading.

150. Oceanic and Atmospheric Sciences Laboratory. (5). Lecture, one hour; laboratory, six hours. Requisites: Mathematics 3B or 31B, Physics 1B and 1C (or 6B and 6C). Many of today's environmental problems, such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were first discovered and investigated using accurate observational techniques. Direct experimental observations remain crucial component in today's efforts to better understand weather, climate, and pollution of atmosphere and ocean. Introduction to experimental/approaches in atmospheric and oceanic sciences. Students work in small groups to gain hands-on experience with phenomena of atmosphere and ocean, and replace development of different experiments. Introduction to underlying principles of these experimental methods and basic data analysis tools. 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 ecosystem, oceans, atmosphere, and hydrosphere. 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.

160. Remote Sensing. (4). Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing, atmospheric spectroscopy, methods to remove atmospheric correction, and extinction processes; passive and active techniques; inversion methods; remote sensing of terrestrial meteorological parameters and trace constituents; remote sensing of surface and canopy transpiration; remote sensing of planes and features within the atmosphere. Concurrently scheduled with course C240B. P/NP or letter grading.


C182. Data Analysis in Atmospheric and Oceanic Sciences. (4). Lecture, three hours; laboratory, one hour. Enforced requisite: course 101 through 110 or M105. Recommended: one probability course. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal components, canonical orthogonal coordinate systems (rotation), time-series analysis, and clustering methods. Model validation and evaluation, significance tests, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C280. P/NP or letter grading.

186. Operational Meteorology. (2). Laboratory, six hours. Requisite: course C110. Limited to junior/se- nior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting, satellite interpretation, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radio-dioxide, and radar installations. Letter grading.

197. Individual Studies in Atmospheric and Oceanic Sciences. (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 work completed. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Atmospheric and Oceanic Sciences. (2 to 4). Tutorial, to be arranged. Limited to seniors for Mathematics/Aerosol and Oceanic and Atmospheric Sciences majors. Super- vised individual research or investigation under guid- ance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


200B. Introduction to Dynamics of Earth System. (4). Lecture, three hours. Overview of general circula- tion of atmosphere and ocean; global energy bal- ances; coupled circulations (such as el niño); meso- scale, synoptic, and tropical phenomena; boundary layers, clouds, and convection; biogeochemical cy- cles; climate variability and change. S/U or letter grading.


201C. Atmospheric and Oceanic Turbulence. (4). Lecture, three hours. Requisite: course 200A. Recom- mended: course 201A. Turbulent flows that occur on relatively small scales (<~10 km) in both atmosphere and ocean. Classical homogeneous, shear, convec- tive, and boundary-layer turbulence and its geophys- ical and engineering implications. Direct numerical simulations, and water phase changes. S/U or letter grading.


M203A. Introduction to Atmospheric Chemistry. (4). (Same as Civil Engineering M262A.) Lecture, three hours. Requisite: undergraduate Chemistry 20B. Principles of chemical kinetics, thermochromy, spectroscopy, and photochemistry; chemical compo- sition and history of Earth's atmosphere; biogeo- chemical cycles of key atmospheric constituents; basic photochemistry of troposphere and strato- sphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

M203B. Introduction to Ocean Chemistry. (4). Lecture, three hours; discussion, one hour. Principles of radiative transfer, absorption, emission, and scat- tering of solar and infrared radiation; radiation budget considerations; aerosols and cloud processes; principles of water droplet and ice crystal formation; diffusion and accretion; precipitation processes; radiative forcings of clouds/aerosols and climate feedback. S/U or letter grading.
205A. Introduction to Solar System Plasmas. (4). Lecture, three hours; discussion, one hour. Introduc-
tion to basic plasma physical processes occurring in sun, solar corona, interplanetary space, and lithosphere of planets, using simple fluid (magneto-hydrodynamic) models as well as individual particle (radiation belt dy-
namics) approach. Solar-planetary coupling pro-
ceses. Geomagnetic, auroral, Magnetospheric. Con-
currently scheduled with course C170. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205B. Introduction to Solar-Terrestrial Physics. (4). Lecture, three hours; discussion, one hour. Solar, inter-
planetary, magnetospheric, auroral, geomagnetic phenomenological and theoretical background for studies in space physics. Contextual understanding and literacy in space physics termsi-
nology provided. S/U (for majors with consent of in-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205C. Planetary Upper Atmospheres. (4). Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of Earth and other planets and some of their satellites—thermospheric structure and morphol-
y, circulation, and disturbances; ionospheres as collisional-ionized layers, and ionospheric and magnetospheric phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Air/Atmosphere Interactions. (4). (Same as Geography M206.) Lecture, two hours; laboratory, one hour; reading, one hour. Designed for graduate students. Presenta-
tion of introductory level for graduate students to current issues in projections of future anthropogenic climate change; design and use of resources from Coupled Model Intercomparison Projects (CMIPs), topics from current climate assessments including Intergovernmental Panel on Climate Change (IPCC), Issues in modeling current climate, including natural climate variability, paleoclimate, and global change under standardized scenarios for future an-
thropogenic 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

210. Dynamics of Planetary Circulations. (4). Lecture, three hours; requisites: course 201A. Mean at-
ospheric circulation and its low-frequency vari-
bility. Persistent anomalies and multiple flow re-
gimes. Fasciation in laboratory models of atmospheric flows and intraseasional oscillations. Wind-driven ocean circulation and its interannual vari-
bility. Hierarchical modeling of atmospheric and oce-
anic flows. 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.

211. Planetary Wave Dynamics and Teleconnec-
tions in Atmosphere/Ocean. (4). Lecture, three hours. Requisite: course 201C. Cloud con-
vection and the boundary layer in tropics. Clouds and mesoscale convection systems. Interac-
tion of cumulus convection with large-scale environment. Tropospheric and stratospheric meteo-
ology. 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 Modeling of Geophysical Fluid Dy-
namics. (4). Lecture, three hours. Requisite or coreq-
quisite: course 201A. Basic numerical methods for ini-
tial-boundary value problems in fluid dynamics, with emphasis on two-, three-dimensional ocean-
ographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational instability. Computation and modeling of baroclinic instabilities. Spectral methods. 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.

212B. Numerical Modeling of Atmosphere I. (4). Lecture, three hours. Requisites: courses 201B, 212A. Dynamics of numerical weather prediction and cli-
mate models and their computational design. Basic, governing equations. Vertical and horizontal coordi-
nates. Quasi-geostrophic and balanced models. Shallow-water equation model. Three-dimensional primitive equation model. Quality control area modeling. 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.

212C. Numerical Modeling of Atmosphere II. (4). Lecture, three hours. Requisite: course 201C. Formu-
lization of physical processes in numerical weather pre-
diction and climate models. Planetary boundary layer processes. Turbulence closure models. Conden-
sation processes. Parameterization of moist-convective pro-
cesses. Cloudiness parameterization. Parameteriza-
tion of precipitation. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

214. Theoretical Climatic Dynamics. (4). Lecture, three hours. Radiative transfer and energy-balance models (EBMs). Multiple equilibrium climates and their stability. Coupled EBMs of atmosphere and oceans. Climatic history of our planet. Continous mechanics of ice sheets and mantle. Oscillatory models of Quaternary glaciation cycles. Transitions from equilibrium to periodic and aperiodic climate behav-
ior. Examination of relationships between ocean circulations and smaller-scale motions and atmospheric flows, convection, stably stratified flows, and geos-
trophic motions. Examination of relationships be-
tween circulation and its transport effects on general circulations. 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.

215. Ocean Circulation. (4). Lecture, three hours. Requisites: courses 200A, 201A. Phenomena, theory, and modeling of ocean circulations with global to re-
gional scope. Circulation types include thermohaline and wind-driven currents. Examination of relation-
ships between ocean circulations and smaller-scale motions, atmospheric climate, and biogeochemical transport. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

216A. Tropical Motions with Moist Processes. (4). Lecture, three hours; requisites: course 201C. Cu-
mulonimbus and the convection boundary layer in tropics. Cloud layers and mesoscale convection systems. Interac-
tion of cumulus convection with large-scale environment. Tropospheric and stratospheric meteo-
ology. 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.

al wave disturbances. Tropical 50–day oscillation. Quasi-biennial and semiannual oscillations. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

217. Mesoclimates. (4). Lecture, three hours. Global distribution of climate regimes with spatial scales smaller than 100 km. Mechanisms maintaining meso-
climates against much larger-scale atmospheric gener-
bative motion and isolation of mesoscale-ecosystem interaction. S/U or letter grading.

218. Dynamics of Atmosphere/Ocean System. (4). Lecture, three hours. Transfer of properties between atmosphere and ocean; wind-driven ocean currents; coastal upwelling. Air/sea interactions. Effects of storms on oceans at climate. S/U (for majors with consent of in-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

220. Dynamics of Middle Atmosphere. (4). Lecture, three hours. Requisite: course 201A. Structure and composition of middle atmosphere. Waves in middle atmosphere, including tides, planetary waves, and gravity waves. Q. 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.

221. Geophysical Turbulence. (4). Lecture, three hours. Requisites: courses 200A, 201A. Phenomena, theory, and modeling of turbulence in Earth’s oceans and atmosphere—from fine structure to planetary scale motions. Regimes of turbulence and its transport effects on atmospheric and ocean behavior. Climatic predictability. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

224A. Atmospheric Turbulence. (4). Lecture, three hours. Kinematics of homogeneous and shear flow turbulences. Surface and planetary boundary layers, including heat transfer and turbulent convection. Survey of field and laboratory observations and the-
interpretation by theory. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

225. Thermodynamic Dispersion and Air Pollution. (4). (Same as Civil Engineering M262B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusiv-
ion from point, line, and areal sources. Pollutant dispersion in urban complexes; meteorological fac-
tors and air pollution potential; meteorological as-
pects of air pollution. 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.

227. Advanced Dynamic and Synoptic Meteorol-
y. (6). Laboratory, six hours. Requisite: course 101. Weather map analysis, thermodynamic diagrams, sat-
elite interpretation, severe weather forecasting, isen-
tropic analysis, frontogenesis, quasi-geostrophic omega equation. Concurrently scheduled with course C110. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

228. Mesoclimatology. (4). Lecture, three hours. Requisite: course 101. Observations of phenomena with length scales ranging from 20 km to 2,000 km. Topics include polar lows, armask thunderstorms, mesoscale and supercell tornadoes, tornados, downbursts, microbursts, and dry line. Discussions on design of field project. Concurrently scheduled with course C115. S/U (for majors with consent of inst-
structor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.
Atmospheric and Oceanic Sciences / 185

229. Mesoscale Modeling. (4). Lecture, three hours. Requisites: courses 201C, 222B. Numerical and analytical modeling of convective and mesoscale motions, from shallow heating sources to large complex systems. Model frameworks, assumptions, parameterizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and behavior of systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4). Lecture, three hours. Requisite: course 203CA. Photochemistry of troposphere; physical chemistry of surfaces and solutions; precipitation chemistry and acid rain; atmospheric organic chemistry; regional and global biogeochemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

230B. Atmospheric Chemistry II. (4). Lecture, three hours. Requisite: course 230A. Photochemistry of stratosphere and mesosphere; basic ionospheric processes; stratospheric pollution and ozone layer; physical chemistry of upper atmosphere clouds and aerosols; atmospheric chemistry of planetary atmospheres; observational techniques and results. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

232. Chemical Transport Modeling. (4). Lecture, three hours. Requisites: courses M203A, 230A, 230B. Equations of tracer transport and chemical kinetics model the transport of reactive tracers; dimensional; numerical techniques; coupled simulations of gas-phase and aerosol microphysics and chemistry; computational versus observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

234A. Cloud and Precipitation Physics I. (4). Lecture, three hours. Requisite: course 233B. Microstructure of atmospheric clouds; structure of three phases of water substance, including surface effects; thermodynamic theory for equilibrium between three phases of water substance; radiative forcing and surface effects; theory of homogeneous and heterogeneous nucleation of water drops and ice crystals. 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).

234B. Cloud and Precipitation Physics II. (4). Lecture, three hours. Requisite: course 234A. Theory of growth and evaporation of water drops and ice crystals by diffusion of water vapor; hydrodynamics of rigid bodies in viscous medium; hydrodynamics of cloud drops, rain drops, and atmospheric ice particles; growth of cloud drops and atmospheric ice particles by collision. 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).

M235. Ocean Biogeochemical Dynamics and Climate. (4). (Same as Ecology and Evolutionary Biology M238.) Lecture, three hours. Interaction of ocean biogeochemical cycles with climate, with emphasis on practical applications, with specific examples from oceanic, ice sheets and marine ice, lithosphere and mantle. Climatic impact of changes in constant solar, insolation, and volcanic eruptions. Radiative forcing in global climate models: clouds and aerosols. Role of radiation in numerical simulation of interannual variability. S/U or letter grading.

Upper Atmosphere and Space Physics

250A. Solar System Magnetohydrodynamics. (4). Lecture, three hours. Requisite: course C220A, Derivation of MHD equations with two fluid aspects, generalization of 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 (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

250B. Solar System Microscopic Plasma Processes. (4). Lecture, three hours. Requisite: course C250A. Adiabatic charged particle dynamics; incoherent radiation from large scale effects on plasma; propagation characteristics of electrostatic and electromagnetic waves; introduction to resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).

256. Ionospheric Electrodynamics. (4). Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric control of magnetospheric phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department or letter grading).


C260. Data Analysis in Atmospheric and Oceanic Sciences. (4). Lecture, three hours; laboratory, one hour. Enforced requisites: one course from 101 through M105. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods. Model validation and evaluation, significance tests, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C182. S/U or letter grading.

Special Studies

270. Seminar: Atmospheric Sciences. (2). Seminar, one hour. May be repeated for credit. S/U or letter grading.

271. Seminar: Atmospheric Dynamics. (2). Seminar, one hour. May be repeated for credit. S/U or letter grading.

M272A–M272B–M272C. Seminars: Climate Dynamics. (2 to 4 each). (Same as Earth, Planetary, and Space Sciences M270A-M270B-M270C.) Seminar, two hours. Archaeological, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems; ocean circulation, 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.

273. Seminar: Atmospheric Physics. (2). Seminar, one hour. May be repeated for credit. S/U or letter grading.

274. Seminar: Atmospheric Chemistry. (2). Seminar, one hour. May be repeated for credit. S/U or letter grading.

276. Seminar: Mesoscale Processes. (2), Seminar, one hour. Selected topics of current research interest in convection, extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.

277. Seminar: Coastal Ocean. (2), Seminar, one hour. Selected topics of current interdisciplinary research in marine and coastal sciences, including physical oceanography, biogeochemistry, marine biology, coastal engineering, atmospheric processes, and health-related issues. May be repeated for credit. S/U grading.

281. Special Topics in Dynamic Meteorology. (2 to 4), Lecture, two hours. Individual meetings with instructor to be arranged. Content varies from year to year. S/U or letter grading.

282. Special Topics in Oceanography. (2 to 4), Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

283. Special Topics in Atmospheric Physics. (2 to 4), Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

284. Special Topics in Atmospheric Chemistry. (2 to 4), Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

285. Special Topics in Solar Planetary Relations. (2 to 4), Lecture, two hours. Individual meetings with instructor to be arranged. Selected topics of current research interest in solar-wind, magnetospheric, or ionosphere physics. S/U or letter grading.

296A–296L. Advanced Topics in Atmospheric Sciences. (2 each), Discussion, two hours. Advanced study and analysis of current topics in atmospheric sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading:

296A. Numerical Modeling of Atmosphere.
296B. Boundary Layers, Clouds, and Climate.
296C. Numerical Mesoscale Modeling.
296D. Climate Dynamics.
296E. Numerical Modeling of Atmosphere and Ocean.
296F. Hierarchical Modeling of Ocean/Atmosphere System.
296G. Upper Atmosphere and Space Physics.
296H. Recent Advances in Atmospheric Chemistry.
296I. Upper Atmospheric Dynamics.
296J. Experimental Mesoscale Meteorology.
296K. Tropical Meteorology.
296L. Geophysical Fluid Dynamics, Oceanography, and Climate.
296M. Radiation and Remote Sensing.
296N. Tropospheric Chemistry and Climate Modeling and Analysis.
296P. Atmospheric Chemistry of Air Pollution, Aerosols, and Climate.

375. Teaching Apprentice Practicum. (1 to 4), Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Atmospheric and Oceanic Sciences. (2), Seminar, one hour; two-day intensive training session prior to Fall Quarter. Required of all new teaching assistants and recommended for new Ph.D. students and graduate students intending to be teaching assistants during academic year. Introduction to classroom teaching for general education and upper division departmental courses. Topics include pedagogical techniques, preparation, academic integrity, and integration of technology and electronic communications. S/U grading.

596. Directed Studies for Graduate Students. (2 to 8), Tutorial, to be arranged. S/U grading.

597. Preparation for M.S. Comprehensive Examination. (2 to 8), Tutorial, to be arranged. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 8), Tutorial, to be arranged. S/U grading.


**Bioengineering**

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Daniel T. Kamei, Ph.D., Vice Chair

**Professors**

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Mark S. Cohen, Ph.D., D.B.A., in Residence
Ian Cook, Ph.D., in Residence
Linda L. Demer, M.D., Ph.D.
Timothy J. Deming, Ph.D.
James C. Dunn, M.D., Ph.D.
Robin L. Garrett, Ph.D.
Warren S. Grundfest, M.D., FACS
Chih-Ming Ho, Ph.D. (Ben Rich Lockheed Martin Professor of Aeronautics)
Dean Ho, Ph.D.
Bahram Jafari, Ph.D.
Chang-Jin Kim, Ph.D.
Deibiao Li, Ph.D., in Residence
James C. Liao, Ph.D. (Ralph M. Parsons Foundation Professor of Chemical Engineering)
Wentai Liu, Ph.D.
Aydogan Ozcan, Ph.D.
Kalyanam Shivkumar, M.D., Ph.D., in Residence
Ren Sun, Ph.D.
Yi Tang, Ph.D.
Michael A. Teitel, Ph.D.
Cun-Yu Wang, D.D.S., Ph.D.
Gerard C.L. Wong, Ph.D.
Benjamin M. Wu, D.D.S., Ph.D.
Yang Yang, Ph.D.

**Professor Emeritus**

Edward R.B. McCabe, M.D., Ph.D. (Mattel Executive Endowed Professor Emeritus of Pediatrics)

**Associate Professors**

Pei-Yu Chiou, Ph.D.
Chi On Chui, Ph.D.
Dino Di Carlo, Ph.D.
Daniel B. Ennis, Ph.D., in Residence
Daniel T. Kamei, Ph.D.
Jacob J. Schmidt, Ph.D.

**Assistant Professors**

Andrea M. Kasko, Ph.D.
Stephanie K. Seidlits, Ph.D.

**Adjunct Professor**

Howard Winet, Ph.D.

**Adjunct Associate Professor**

Bill J. Tawil, M.B.A., Ph.D.

**Adjunct Assistant Professors**

Kayan Niazi, Ph.D.
Thomas A. Zangle, Ph.D.

**Scope and Objectives**

Faculty members in the Department of Bioengineering believe that the interface between biology and engineering is an exciting area for discovery and technology development in the twenty-first century. They have developed an innovative curriculum and created state-of-the-art facilities for cutting-edge research.

The bioengineering program is structured offering of unique forward-looking courses dedicated to producing graduates who are well-grounded in the fundamental sciences and highly proficient in rigorous analytical engineering tools necessary for lifelong success in the wide range of possible bioengineering careers. Combined with a strong emphasis on research, the program provides a unique engineering educational experience that responds to the growing needs and demands of bioengineering.

**Undergraduate Study**

The bioengineering program is accredited by the Engineering Accreditation Commission of ABET. See http://www.abet.org.

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.

**Bioengineering B.S. Capstone Major**

**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 2 (satisfies HSSEAS GE life sciences requirement), 3, 23L; 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, 165EW (or Engineering 183EW or 185EW), 167L, 176, 180, Electrical Engineering 100; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Bioengineering 177A, 177B)

2. Two major field elective courses (8 units) from Bioengineering C101, C106, C131, C155, M260 (a petition is required for M260)
Upper Division Courses


CM102. Human Physiological Systems for Bioengineering I. (4). (Formerly numbered Biomedical Engineering C102.) (Same as Physiology Science C102.) Lecture, three hours; discussion, one hour; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiology Science majors. Broad overview of basic biological activities and processes in human systems. (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspects of biological systems included. Actual demonstration of physiological systems, as well as visits to biomedical facilities. Concurrently scheduled with course CM202. Letter grading.

CM103. Human Physiological Systems for Bioengineering II. (4). (Formerly numbered Biomedical Engineering C103.) (Same as Physiology Science C103.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiology Science majors. Molecular-level understanding of human anatomy and physiology in selected organ systems (digestive, skin, musculoskeletal, endocrine, immune, urinary, reproductive). System-specific modeling/simulation of wound healing, muscle mechanics and energetics, acid-base balance, excretion. Functional basis of biomedical instrumentation (dialysis, artificial skin, pathogen detectors, ultrasound, magnetic resonance). Concurrently scheduled with course C203. Letter grading.

C104. Physical Chemistry of Biomacromolecules. (4). (Formerly numbered M104.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20A, Life Sciences 2, 3, 23L. 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 engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation and characterization of biomacromolecules. Concurrently scheduled with course C204. Letter grading.

C105. Engineering of Bioconjugates. (4). (Formerly numbered M105.) 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. Diagonostics may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application, such as degradable vehicles, nondegradable linkers, and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C205. Letter grading.

C106. Topics in Bioengineering. (4). (Formerly numbered M106.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: Chemistry 20B, Life Sciences 2, 3, 23L, Mathematics 32B, 107B. Coverage in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic principles governing electrodynamics in dielectric media, building on complexity to ultimately address action potentials and signal propagation in nerves. Topics include Nernst/Planck and Poisson/Boltzmann equations, Nernst potential, Donnann equilibrium, GHK equations, energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conduction, electrodlectic integration. Concurrently scheduled with course C206. Letter grading.

C107. Polymer Chemistry for Bioengineers. (4). (Formerly numbered M107.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course C104 or C105. 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 molecular weight, chain-end functionality, chain copolymerization, and stereochemistry in polymerizations. Presentation of applications of use different polymerization techniques. Concepts of synergetic 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 C207. Letter grading.

110. Biortransplant and Bioreaction Processes. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 100, Mathematics 32B. Introduction to analysis of fluid flow, heat transfer, mass transfer, binding events, and biochemical reactions in systems of interest to bioengineers, including cells, tissues, organs, human body, extracorporeal devices, tissue engineering systems, and bioartificial organs. Introduction to pharmacokinetic analysis. Letter grading.


C131. Nanopore Sensing. (4). (Formerly numbered M131.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 2, 3, 23L, Physics 1A, 1B, 1C. Analysis of sensors based on measurements of fluctuating ionic conductance through artificial or protein nanopores. Physics of pore conductance. Application to single molecule detection, DNA sequencing. Review of current literature and technological applications. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolytes, nanopore fabrication, ionic conductance through pores and GHK equation, patch clamp and single channel measurements and instrumentation, noise issues, protein engineering, molecular basis of DNA sequencing, DNA sequencing through nanopore, and future directions of field. Concurrently scheduled with course C231. 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 materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different basic types of biomolecules, including proteins, nucleic acids, carbohydrates, lipids, and lipoproteins. Application of these ideas using examples from bioengineering and biomedical 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 required to take C139B. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different basic types of biomolecules, including proteins, nucleic acids, carbohydrates, lipids, and lipoproteins. Application of these ideas using examples from bioengineering and biomedical engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

CM140. Introduction to Biomechanics. (4). (Formerly numbered Biomedical Engineering CM140.) (Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: Mechatronics and Robotics CM102, Fluid Mechanics APME 101, and APME 156A or 166A. Introduction to biomechanics as a broad field of study that concerns the mechanical properties of living systems. Focus on the physics of human systems and the use of engineering principles to understand and design prostheses. Preparation of drawings and consideration of design, manufacture, and testing of biomedical devices. Examination of complex procedures to current biomedical engineering research and development of tissue-engineering devices. Concurrently scheduled with course C247. Letter grading.

CM150. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4). (Formerly numbered Biomedical Engineering CM150.) (Same as Electrical Engineering CM150L and Mechanical and Aerospace Engineering CM150L.) Lecture, two hours; discussion, one hour; outside study, seven hours. Enforced requisites: course CM150L, Physics 20A, 20L, and Chemistry 1A, 1B, 1C, 4AL, 4BL. Introduction to micromachining technologies and microfabrication (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsystems, and microactuators. Students go through process of fabricating MEMS devices. Concurrently scheduled with course CM250A. Letter grading.

C155. Fluid-Particle and Fluid-Structure Interactions in Micromachined Flow Problems. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 110. Introduction to Navier/Stokes equations, assumptions, and simplifications. Analytical and numerical techniques for calculating simple flows and numerical methods to solve and gain intuition for complex flows. Forces on particles in Stokes flow and finite-inertia flows. Flows induced around particles with and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particles in confined flows. Particle separations by fluid dynamic forces: field-flow fractionation, inertial focusing, and structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary to take more advanced courses in micromachined biofluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and particles behave in arbitrarily structured microchannels over range of scales. Concurrently scheduled with course CM255. Letter grading.

165EW. Bioengineering Ethics. (4). Lecture, four hours; discussion, three hours; outside study, five hours. All professions have ethical rules that derive from moral theory. Bioethics is well-established discipline that addresses ethical problems of the field. Enforced requisites: courses 167L, 176. Lectures, seminars, and project management. Working in teams, students complete research projects. Exploration of different experimental and clinical research designs, intellectual property, entrepreneurship, regulatory requirements, and project management. Working in teams, students complete research projects. May be taken independently for credit. Concurrently scheduled with course CM245. Letter grading.

C147. Applied Tissue Engineering: Clinical and Industrial Perspective. (4). (Formerly numbered Biomedical Engineering CM147.) Lecture, three hours; discussion, two hours; outside study, seven hours. Emphasis on research and writing within engineering environments. Preparation of drawings and consideration of design, manufacture, and testing of biomedical devices. Examination of complex procedures to current biomedical engineering research and development of tissue-engineering devices. Concurrently scheduled with course CM147. Letter grading.


C172. Design of Minimally Invasive Surgical Tools. (4). (Formerly numbered M172.) Lecture, three hours; discussion, two hours; outside study, seven hours. Required: course 110. Introduction to Navier/Stokes equations, assumptions, and simplifications. Analytical and numerical techniques for calculating simple flows and numerical methods to solve and gain intuition for complex flows. Forces on particles in Stokes flow and finite-inertia flows. Flows induced around particles with and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particles in confined flows. Particle separations by fluid dynamic forces: field-flow fractionation, inertial focusing, and structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary to take more advanced courses in micromachined biofluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and particles behave in arbitrarily structured microchannels over range of scales. Concurrently scheduled with course CM271. Letter grading.

C177. Bioengineering Capstone Design I. (4). (Formerly numbered 182B.) Lecture, two hours; laboratory, six hours; outside study, four hours. Required: courses 167L, 176. Lectures, seminars, and discussions on topics of biomedical device and therapeutic design, including topics such as need finding, intellectual property, entrepreneurship, regulation, and project management. Working in teams, students develop innovative solutions to current 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.

C178. Bioengineering Capstone Design II. (4). (Formerly numbered 182C.) Lecture, two hours; laboratory, six hours; outside study, four hours. Required: introduction to tissue engineering and biocompatibility. Course for physical sciences, life sciences, and engineering majors. Introduction to optical spectroscopy principles, design of spectroscopic measurement devices, optical properties of tissues, and fluorescence and biocomputing. Concurrently scheduled with course CM272. Letter grading.
students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research laboratory. Analysis of concepts related to both modeling and experimentation of endocytosis and intracellular trafficking mechanisms. Analysis of diffusion of drugs, coupled with computational and engineering mathematics approaches. Concurrently scheduled with course C101. Letter grading.

CM202. Human Physiological Systems for Bioengineering II. (4). (Formerly numbered Biomedical Engineering C202.) (Same as Physiology Science CM202.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiology 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 CM102. Letter grading.


CM204. Topics in Bioelectricity for Bioengineers. (4). (Formerly numbered Biomedical Engineering C204.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules such as protein or DNA can be analyzable functional. Principles for designing and understanding delivery of genes and drug conjugates. New therapeutics require comprehensive understanding of complex biological systems and drug release. Introduc- tion to host cellular response to biomaterials: vascular response, inter- face, and clotting, biocompatibility, animal models, in- flammation, infection, human microarray, microarray technology, and role of mechanical forces. Concurrently scheduled with course C207. Letter grading.

CM205. Topics in Bioelectricity for Bioengineers. (4). (Formerly numbered Biomedical Engineering C205.) Lecture, three 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 such as protein or DNA can be analyzable functional. Principles for designing and understanding delivery of genes and drug conjugates. New therapeutics require comprehensive understanding of complex biological systems and drug release. Introduc- tion to host cellular response to biomaterials: vascular response, inter- face, and clotting, biocompatibility, animal models, in- flammation, infection, human microarray, microarray technology, and role of mechanical forces. Concurrently scheduled with course C207. Letter grading.

CM206. Topics in Bioelectricity for Bioengineers. (4). (Formerly numbered Biomedical Engineering C206.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules such as protein or DNA can be analyzable functional. Principles for designing and understanding delivery of genes and drug conjugates. New therapeutics require comprehensive understanding of complex biological systems and drug release. Introduc- tion to host cellular response to biomaterials: vascular response, inter- face, and clotting, biocompatibility, animal models, in- flammation, infection, human microarray, microarray technology, and role of mechanical forces. Concurrently scheduled with course C207. Letter grading.
C207. Polymer Chemistry for Bioengineers. (4). (Formerly numbered Biomedical Engineering C207.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: 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 chain-end 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 C106. Letter grading.


M215. Biochemical Reaction Engineering. (4). (Formerly numbered Biomedical Engineering M215.) Lecture, four hours; discussion, one hour. For graduate students. Provided for credit for undergraduate students with permission of departmental adviser. Introduction 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. Common medical ontologies, coding schemes, and standardized indices/terminologies (SNOMED, UMLS). Letter grading.

M221. Human Anatomy and Physiology for Medical Imaging Informatics. (4). (Formerly numbered Biomedical Engineering 221.) Lecture, four hours; discussion, eight hours. Requisite: course 220A. Overview of human anatomy and physiology, with particular emphasis on understanding and visualization of anatomy and physiology through medical images. Topics relevant to acquisition, representation, and visualization of medical knowledge in computerized clinical applications. Topics include heart, cardiac, neurology, gastrointestinal/generative, endocrine, and musculoskeletal systems. Emphasis on understanding and visualization of anatomy and physiology. Letter grading.

M222A-222B-222C. Laboratory Programs for Medical Imaging Informatics 1, II, III (4-4-4). (Formerly numbered Biomedical Engineering M222A-222B-222C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 221C. Laboratory programs to support coursework in other medical imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques used in image processing and medical information system infrastructures. Letter grading. Requisite: course 221B. Requisite: Computer Science 31, 32, Program in Computing 20A, 20B. Course 222A is required to be taken with course 221A. Credit is not allowed for both courses 222A and 222B. Course 222B is required to be taken with course 221B. Comparisons of algorithms for correlation, and 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 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 C106. Letter grading.

M223. Physics and Informatics of Medical Imaging. (4). (Formerly numbered Biomedical Engineering C231.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 221A. Overview of information retrieval technology and applications in medical informatics. Topics include signal generation, localization, and quantization. Image representation and analysis techniques such as Markov random fields, spatial characterization (atlasses), denoising, energy representation, and clinical imaging workstation design. Provides basic understanding of issues related to basic image formation (e.g., perception, presentation). Review of current literature and technological applications. History and instrumentation of resistive pulse sensors, telemetry, and instrumentation of electrical measurements in electro-
lytes, nanopore fabrication, ionic conductance through pores and GHRK equation, patch clamp and single channel measurements and instrumentation, noise, dendrites, permeability, molecular sensor, DNA sequencing, membrane engineering, and future directions of field. Concurrently scheduled with course C131. Letter grading.

233A. Developing and Implementing Medtech Solutions. (4). Lecture, three hours; discussion, three hours; outside study, six hours. Enforced requisite: course 233A. Designed for graduate and professional students in engineering, dentistry, and medicine to develop 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.

233B. Advancing Biomechanics innovations: Devel-опment and Integration of Micromechanical Systems (4). Lecture, three hours; outside study, nine hours. Enforced requisite: course 233A. Designed for graduate and professional students in engineering, dentistry, and medicine to develop and implement new medtech devices for unmet clinical needs previously identified in course 233A. 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 biomolecular materials science that concern materials aspects of molecular biology, cell biology, and physiology. Understanding of different types of interactions that exist between biomolecules, such as van der Waals interactions, tetramodulated 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 broad spectrum of bioengineering problems, such as those in drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239B. Letter grading.

C239B. Biomolecular Materials Science II. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include biophysical properties of biological materials, structure and operation. Emphasis on engineering design and development of tissue-engineering devices. Concurrently scheduled with course C2147. Letter grading.

M248. Introduction to Biological Imaging. (4). Formerly numbered Biomedical Engineering M248.) (Same as Biomedical Physics M248 and Pharmacology M248.) Lecture, four hours; laboratory, five hours; 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.

CM250A. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4). Formerly numbered Biomedical Engineering CM250A.) (Same as Electrical Engineering CM250A and Mechanical and Aerospace Engineering CM250A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include biophysical properties of biological materials, structure and operation. Emphasis on engineering design and development of tissue-engineering devices. Concurrently scheduled with course C2147. Letter grading.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4). Formerly numbered Biomedical Engineering M250B.) (Same as Electrical Engineering M250B and Mechanical and Aerospace Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course CM150 or CM250A. Advanced discussion of micromachining processes for MEMS. Overview of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual intrinsic stress. Letter grading.

CM250L. Introduction to Micromachining and Microelectromechanical Systems (MEMS) Labaro- ratory. (4). Formerly numbered Biomedical Engineering CM250L.) (Same as Electrical Engineering CM250L and Mechanical and Aerospace Engineering CM280L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Requisites: course CM250A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 1L, 4BL, 4BH.

Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods of micromachining and how these methods can be used to produce varieties of MEMS, including microstructures, microsensors, and microactuators. Students go through process of fabricating MEMS device. Concurrently scheduled with course CM150L. Letter grading.


M260. Neuroengineering. (4). Formerly numbered Biomedical Engineering M260.) (Same as Neuroscience Engineering M255 and Neuroscience M260.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 6B. Introduction to principles and technologies of bio- electricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, EOG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulus artifact removal), brain-machine interfaces, and prosthetics. Letter grading.


M263. Neuroanatomy: Structure and Function of Nervous System. (4). Formerly numbered Biomedical Engineering M263.) (Same as Neuroscience M263.) Lecture, three hours; discussion/laboratory.
three hours. Anatomy of central and peripheral nervous system at cellular histological and regional systems level, with emphasis on contemporary experimental approaches to morphological, neurochemical and macroscopic techniques for characterizing structure and properties of biomaterial interfaces, and methods for designing and fabricating biomaterials with prescribed structure and properties in vitro and in vivo. Letter grading.

C283. Targeted Drug Delivery and Controlled Drug Release. (4). (Formerly numbered Biomedical Engineering C283.) Lecture, four hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapeutics require comprehensive understanding of modern biology, physiology, pharmacology, targeted delivery of drugs and controlled release are important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics. Application of engineering principles (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacing properties. Exploration of both chemistry of materials and physical presentation of devices and components used in delivery and release. Concurrently scheduled with course C183. Letter grading.

C284. Functional Neuroimaging: Techniques and Applications. (4). (Formerly numbered Biomedical Engineering M284.) (Same as Biomedical Physics M285, Neuroscience M285, Psychiatry M285, and Psychology M272.) Lecture, three hours. In-depth examination of principles and physical properties of functional MR imaging, PET, SPECT and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding neural and systems interactions in the brain, imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

C295. Introduction to Tissue Engineering. (4). (Formerly numbered Biomedical Engineering C295.) 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 physical sciences with engineering approach to regenerate tissues and organs. Guiding principles for proper selection of three basic components for tissue engineering: cells, scaffolds, and molecular signals. Concurrently scheduled with course C185. Letter grading.

CM286. Computational Systems Biology: Model ing and Simulation of Biological Systems. (5). (Formerly numbered Biomedical Engineering CM296E.) (Same as Computer Science CM286.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Corequisites: Electrical Engineering 102. Dynamic systems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, multiparameter, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory and numerical simulation results. Focus on translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with model development in Matlab and PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

CM287. Research Communication in Computational and Systems Biology. (2 to 4). (Formerly numbered Biomedical Engineering CM287.) Lecture, four hours; outside study, eight hours. Requisite: course CM286. Closest directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current relevance in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM186. Letter grading.

C295A. Biomaterial Research.

C295B. Biomaterials and Tissue Engineering Research.

C295C. Biomimetic System Research.

C295D. Minimally Invasive and Laser Research.

C295E. Hybrid Device Research.

C295F. Molecular Cell Biomechanics Research.

C295G. Biopolymer Materials and Chemistry.

C295H. Biomicrofluidics and Bionanotechnology Research.

C295I. Biomimetic System Research.

CM296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4). (Formerly numbered Biomedical Engineering M296A.) (Same as Computer Science M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisites: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multiparametal, nonparametal, and input/output models, linear and nonlinear. Emphasis on model applications and limitations, and techniques used in medical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

CM296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4). (Formerly numbered Biomedical Engineering M296B.) (Same as Biostatistics M270, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisites: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multiparametal, nonparametal, and input/output models, linear and nonlinear. Emphasis on model applications and limitations, and techniques used in medical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

CM296C. Advanced Topics and Research in Biomechanics, Biomedical Systems Modeling and Computing. (4). (Formerly numbered Biomedical Engineering M296C.) (Same as Computer Science M296C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisites: course CM296B. Research techniques and experience on special topic involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Research problem searching and formulation. Approaches to solving real-life problems, translating modeling goals and data into mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with model development in Matlab and PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

CM296D. Introduction to Computational Cardiology. (4). (Formerly numbered Biomedical Engineering M296D.) (Same as Computer Science M296D.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological process, ion models of action potential (AP) theories and one- 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.

CM296E. Introduction to Tissue Engineering. (4). (Formerly numbered Biomedical Engineering C296E.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to tissue engineering approaches to study, eight hours. Requisite: course CM186. Introduction to tissue engineering approaches to study, eight hours. Requisite: course CM186.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gsasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Bioinformatics Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Bioinformatics.

Bioinformatics Graduate Courses

M202. Bioinformatics Interdisciplinary Research Seminar. (4). (Same as Chemistry M202.) 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.

M224. Computational Genomics. (4). (Same as Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: Computer Science 32 or Program in Computing 10C with grade of C+ or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in biology; development human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Letter grading.

M252. Seminar: Advanced Methods in Computational Biology. (3). (Same as Chemistry M252 and Human Genetics M252.) Seminar, one hour; discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology; development of novel methodologies. S/U or letter grading.

M260A. Introduction to Bioinformatics. (4). (Same as Chemistry CM260A, Computer Science CM221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Enforced requisites: Computer Science 32 or Program in Computing 10C with grade of C+ or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodology in bioinformatics. Focus is 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.

M260B. Algorithms in Bioinformatics and Systems Biology. (4). (Same as Chemistry CM260B and Computer Science CM222.) Lecture, four hours; discussion, two hours. Enforced requisites: Computer Science 32 or Program in Computing 10C with grade of C+ or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course M260A is not requisite to M260B. 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.

M271. 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 M260A 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.

296. Seminar: Research Topics in Bioinformatics. (2). Seminar, to be arranged; discussion, three hours. Advanced study and analysis of current research topics in bioinformatics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching 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 in Bioinformatics. (2 to 12). Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12). Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. M.S. Thesis Research and Writing. (2 to 12). Tutorial, to be arranged. May be repeated for credit. S/U grading.


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S. Larry Zipursky, Ph.D.

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John Edmond, Ph.D.

Peter A. Edwards, Ph.D.

Armand J. Fuclo, Ph.D.

Dohn G. Glitz, Ph.D.

Harvey R. Herschman, Ph.D. (Crump Professor Emeritus of Medical Engineering)

Bruce D. Howard, M.D.

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Kevin McEntee, Ph.D.

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Elizabeth F. Neufeld, Ph.D.

Sidney Roberts, Ph.D.

Patrice J. Zamenhof, Ph.D.

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Alison R. Frand, Ph.D.

Feng Guo, Ph.D.

Timothy F. Lane, Ph.D.

James A. Wohlschlegel, Ph.D.

Assistant Professors

Dulio D. Casscio, Ph.D.

Pascal F. Eega, Ph.D.

Jason Ernst, Ph.D.

Adjunct Professor

Lenore Arab, M.Sc., Ph.D.

Adjunct Assistant Professors

Michaela B. Elowitz, Ph.D.

Eryn Ujiia Lee, Ph.D.

Scope and Objectives

The biological chemistry graduate program prepares students for careers as independent research scientists and scholars. Laboratory research is the central element. Biological chemistry has grown to include studies of cellular, molecular, and developmental biology, molecular genetics and genetic engineering, and many aspects of the health sciences. The research activities of the department include these areas as well as the classic topics of metabolism, enzymology, and biomolecular structure. Courses and seminar programs are designed to provide students with the necessary background and approach to encourage their continuing growth in these rapidly changing areas of science.

Interaction with other graduate programs provides access to scientists in a variety of related disciplines. Through its primary affiliation with the Geffen School of Medicine, the Department of Biological Chemistry is also involved in the basic education of students who will be physicians, dentists, and other health professionals. Many of these students become involved in laboratory research in the department. In part because of this breadth of experiential students find careers in many aspects of basic and applied scientific research and education. The department emphasizes study for the Ph.D., but candidates for the M.S. degree may be accepted under special circumstances.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa图书馆/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Biological Chemistry offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biological Chemistry.

Biological Chemistry

Upper Division Courses

M140. Cell Biology: Cell Cycle. (3). (Same as Molecular Biology, Cell, and Developmental Biology M140.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, or 14BL, or 20A, 20B, and 20L, Life Sciences 3, 4, 23L. Not open for credit to students with credit for Molecular, Cell, and Developmental Biology 100, 165A, or 165B. Satisfies premedical requirements. Eukaryotic cellular structures and biochemistry at molecular level. Biochemical and genetic analysis of cell cycle, signal transduction, and their involvement in development and cancer. Protein sorting and transport across cell membranes. Cytoskeletal components and cell-attachment. 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 literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Directed Research or Senior Project in Biological Chemistry. (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 maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

201A-201B. Biological Chemistry. (5-5). 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's second 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.

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 deci- 
sion on their part in selection of thesis/research ad-
viser. 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 stu-
dents, as well as students from biological sciences and 
medical school. Introduction to current topics in 
bioinformatics, genomics, and computational ge-
etics and preparation for computational interdisci-
plinary research in genetics and genomics. Topics in-
clude genome analysis, regulatory genomics, associ-
ation analysis, association study design, isolated and 
admixed populations, population substructure, 
human structural variation, model organisms, and ge-
monic technologies. Computational techniques in-
clude 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 ogen-
esis and early embryogenesis, pattern formation and 
determination, nervous system development, cellular 
morphogenesis, and cell-cell and cell-matrix interac-
tions. S/U or letter grading.

M237. Molar and Molecular Basis of Disease. 
(4). (Same as Pathology M237.) Lecture, two hours; 
laboratory, two hours. Preparation: one course each 
in molecular biology, cell biology, and biological 
chemistry. Discussion of key issues in disease mech-
anism, with emphasis on experiments leading to un-
derstanding of these mechanisms. Identification of 
important questions still remaining unanswered. 
Letter grading.

251A-251B-251C. Seminars: Transcriptional Regu-
lation. (2-2-2). Seminar, two hours. Advanced 
courses on mechanisms of gene transcription in both 
eukaryotes and prokaryotes intended for students ac-
tively working or highly interested in transcription. S/U 
grading.

M263. Metabolism and Its Regulation. (4). (Same 
as Chemistry M263.) Lecture, three hours. Requisites: 
courses 201A and 201B, or Chemistry 110A and one 
course from 153B, 153C, or 156. Thermodynamic and 
kinetic aspects of metabolism; regulatory properties 
of enzymes; metabolic regulation; consideration of 
comparative aspects of metabolism in relation to physi-
ological function. S/U or letter grading.

266A-266B-266C. Seminars: Cell, Stem Cell, and 
Developmental Biology. (2-2-2). Seminar, two hours. 
Open to undergraduate students with consent of in-
structor. Advanced courses in cell, stem cell, and de-
velopmental biology intended for graduate students 
working or rotating in laboratories of new cell and de-
velopmental biology home area. S/U grading.

296. Research Seminar Series in Biological Chem-
istry. (1). Seminar, one hour. Limited to biological 
chemistry students. Research presentations from sec-
ond- through fourth-year graduate students re-
lated to their research. Designed to be highly interac-
tive, with time for questions from fellow graduate stu-
dents, postdoctoral students, and faculty members 
during and after presentations. May be repeated for 
credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4). Sem-
inar, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, 
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. 
May be repeated for credit. S/U grading.

596. Directed Individual Study and Research. 
(2 to 12). Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Examinations. (2 to 4). Tutorial, 
to be arranged. Individual study for Ph.D. qualifying 
examinations or M.S. comprehensive examination. 
S/U grading.

598. Preparation of M.S. Thesis. (4). Tutorial, to be 
arranged. Preparation of research data and writing of 

599. Research for and Preparation of Ph.D. Disser-
tation. (2 to 12). Tutorial, to be arranged. Preparation 
of research data and writing of Ph.D. dissertation. S/U 
grading.

BIOL

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See Ecology and Evolutionary Biology

BIOMATHMATICS

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Mary E. Sahl, M.D., Ph.D.

Adjunct Instructor

Jeffrey Gornbein, Dr.P.H.

Scope and Objectives

As biology advances rapidly in quantitative re-
search methods, both the need for and possi-
Bility of closely associated theoretical research 
increases. On numerous medical and medical 
science frontiers—such as genetics, molecular 
biology, oncology, pharmacology, neurosci-
ences, and physiology—biomathematics is 
contributing both in its basic research and the 
development of specialized computer software 
to support investigation and healthcare. UCLA 
has one of the few departments in this rapidly 
evolving field.

The department's orientation is away from ab-
stract modeling and toward theoretical re-
search vital to the advancement of current 
biomedical research frontiers. The doctoral 
program reflects this in requirements for ad-
vanced training in a biomedical research spe-
cially and for the mathematical and computing 
skills required to contend realistically with 
complex phenomena encountered in biology 
and medicine. The art of biomathematical re-
search is developed individually from the first 
year on. The master's program adapts to the 
needs of researchers desiring supplemental 
biomathematical training.

The Department of Biomathematics welcomes 
both undergraduate and graduate students in 
other majors to its courses in modeling, bio-
medical computing, and statistics. Premedical 
juniors with mathematical/computer interests 
can receive early guidance toward an M.D./ 
Ph.D. program in Biomathematics. The depart-
ment also provides statistical and biomathe-
matical training in the medical curriculum and 
postgraduate medical programs.

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA 
Graduate Degrees, available at the Graduate 
Division website, http://grad.ucla.edu/gasaa 
/library/pgmqrintro.htm. In many cases, more 
detailed guidelines may be outlined in an-
nouncements, other publications, and websites 
of the schools, departments, and programs.

Graduate Degrees

The Department of Biomathematics offers 
Master of Science (M.S.) and Doctor of Philos-
ophy (Ph.D.) degrees in Biomathematics and 
the Master of Science (M.S.) degree in Clinical 
Research.

Biomathematics

Upper Division Courses

1. Introduction to Cellular Modeling. (4). Lecture, 
four hours; computer laboratory, two hours. Prepara-
tion: some computer programming. Requisite: Mathe-
matics 32A. Designed for upper division science ma-
jors and biomedical graduate students. Introduction 
to modeling cells and cell systems, including intracel-
lular biochemical networks, applications to cancer re-
search. How to develop one's own computer models 
using IMSL mathematics subroutines. P/NP or letter 
grading.

Lecture, four hours; computer laboratory, two hours. 
Preparation: some computer programming. Requisite: 
Mathematics 32A. Designed for upper division sci-
ence majors and biomedical graduate students. Survey 
of wide variety of topics in neurobiological 
modeling, current neuronal modeling systems, Devel-
opment of skills to formulate and program one's own 
models using IMSL mathematics subroutines. P/NP or 
letter grading.

110. Elements of Biomathematics. (4). Lecture, 
three hours; laboratory, three hours. Preparation: cal-
culus. Analysis of deterministic models. Conditions 
under which deterministic and probabilistic descrip-

tions of biological phenomena are appropriate. Both approaches applied to selected examples in physiology and biology. P/NP or letter grading.

160. Introductory Biomathematics for Medical and Biological Research. [4]. Lecture, four hours; discussion, 90 minutes. Elementary statistics course that focuses on statistical concepts and critiques literature, with an emphasis on clinical research. Output from statistical computer packages discussed in class, but students do not use computer themselves. Topics include descriptive statistics, hypothesis testing, sample size and power, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination, article interpretation. P/NP or letter grading.

170A. Introductory Biomathematics for Medical Investigators. [4]. Lecture, three hours; discussion, one hour. Intensive elementary statistics course emphasizing design and applications to observational studies and experiments. Statistical topics include 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.

170B. Statistical and Mathematical Modeling in Medical and Biological Research. [4]. Lecture, four hours; discussion, one hour. Preparation: knowledge of calculus, differential equations, and partial differential equations. Introduction to mathematical biology, focusing on mathematical descriptions of biological systems, evolutionary principles, and approximations that describe structure and function of biological systems, evolutionary principles, and network design and dynamics. Topics include cancer initiation and progression, gene expression, epistasis, response to fluctuating environments, network structure, and functional traits. S/U or letter grading.

203. Stochastic Models in Biology. [4]. Same as Human Genetics M203X. Lecture, four hours. Required: knowledge of probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. [4]. Lecture, four hours. Quantity and quality of observations have been greatly enhanced by use of computers. Problem-oriented study of latest methods in statistical data analysis and use of such arising in laboratory and clinical research. S/U or letter grading.

204. Introduction to Mathematical Oncology. [4]. Lecture, four hours; computer laboratory, two hours. Preparation: ordinary differential equations, computer programming course. Deterministic and stochastic modeling of cell metabolism, colony growth, drug resistance, and immunotherapeutic agents applied to carcinogenesis, therapy, emergence of resistance to therapy. Simulation, optimization methods introduced. Current literature reviewed. Second course in mathematical methods. Topics include randomization methods, intermediate experimental design, contingency table analysis, analysis of variance, multiple linear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer software. Students have opportunity to design their own experiments and analyze them on computer, and to analyze previously collected data. P/NP or letter grading.

190HA-190HB. Honors Research in Biomathematics. [4-4]. Lecture, two hours. Limited to juniors/seniors. Individual research in some aspect of biotechnology designed to acquaint students in depth with mathematical models and computer applications in biology. Must be taken at least two terms and for total of at least 8 units. Thesis required. P/NP or letter grading.


204. Directed Research or Senior Project in Biomathematics. (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


201. Deterministic Models in Biology. [4]. Lecture, three hours; laboratory, three hours. Preparation: knowledge of linear algebra and differential equations. Examination of conditions under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and cellular/animal population models. S/U or letter grading.


M203. Stochastic Models in Biology. [4]. Same as Human Genetics M203X. Lecture, four hours. Required: knowledge of probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. [4]. Lecture, four hours. Quantity and quality of observations have been greatly enhanced by use of computers. Problem-oriented study of latest methods in statistical data analysis and use of such arising in laboratory and clinical research. S/U or letter grading.

204. Introduction to Mathematical Oncology. [4]. Lecture, four hours; computer laboratory, two hours. Preparation: ordinary differential equations, computer programming course. Deterministic and stochastic modeling of cell metabolism, colony growth, drug resistance, and immunotherapeutic agents applied to carcinogenesis, therapy, emergence of resistance to therapy. Simulation, optimization methods introduced. Current literature reviewed. Second course in mathematical methods. Topics include randomization methods, intermediate experimental design, contingency table analysis, analysis of variance, multiple linear regression, methods of classification, model checking, basic mathematical models including compartment models, and statistical computer software. Students have opportunity to design their own experiments and analyze them on computer, and to analyze previously collected data. P/NP or letter grading.

204. Theoretical Genetic Modeling. [4]. Same as Biostatistics M272 and Human Genetics M207A. Lecture, three hours; discussion, one hour. Required: knowledge of basic computer programming. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetic experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

207B. Applied Genetic Modeling. [4]. Same as Biostatistics M237 and Human Genetics M207B. Lecture, three hours; laboratory, one hour. Required: Requisites: Biostatistics 110A, 110B. Methods of computer-oriented human genetic analysis. 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.

208A. Modeling in Neurobiology for Mathematicians. [4]. Lecture, four hours; laboratory, two hours. Preparation: introductory ordinary partial differential equations, programming experience. Introduction to electrophysiology, ion channels, and neuronal function and mathematical and computational methods for studying this, appropriate for physicists, engineers, and mathematicians. Survey of current leading research areas and software systems. S/U or letter grading.

208B. Modeling in Neurobiology for Biologists. [4]. Lecture, four hours; laboratory, two hours. Preparation: lower division calculus, some elementary programming experience. Introduction to neuronal modeling, including how to formulate models and study them with existing computer software (e.g., NODUS) or one’s own simple programs that use IMSL subroutines. Survey of current leading research areas. S/U or letter grading.

209. Mechanisms and Modeling in Bioanalytical Assays. [4]. Lecture, three hours. Preparation: knowledge of basic physical mechanisms and mathematical and computational methods for studying this, appropriate for physicists, engineers, and mathematicians. Survey of current leading research areas and software systems. S/U or letter grading.

212. Nonlinear Dynamics in Biological Systems. [4]. Lecture, three hours; discussion, one hour. Required preparation: elementary knowledge of ordinary differential equations, partial differential equations, and computer programming. Mathematical bases of nonlinear dynamics and self-organization in temporal and spatial systems, with applications to biological systems. Topics range from bifurcation theory in low dimension to pattern formation in high dimension. Use of biologically important examples to illustrate applications of these dynamics, including gene regulation and protein-protein interaction networks, glycolysis, and metabolic oscillatory rhythms, cell cycle controls, intracellular calcium cycling, pattern formation in morphogenesis, and action potential models and electrical wave formation and propagation in nerve and cardiac systems. S/U or letter grading.


230. Computed Tomography: Theory and Applications. [4]. Same as Biomedical Physics M230. Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and is becoming active research area in biomedicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

231. Statistical Methods for Categorical Data. [4]. Same as Biostatistics M231. Lecture, three hours; discussion, one hour. Required: Biostatistics 100B or 110B, Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.

232. Statistical Analysis of Incomplete Data. [4]. Same as Biostatistics M232. Lecture, three hours; discussion, one hour. Required: Biostatistics 100B. Dis- cussion of statistical analysis of incomplete data sets, with material from sample survey, econometric, biometric, psychometric, and general statistical literature. Topics include treatment of missing data in statistical packages, missing data in ANOVA and regression imputation, weighing, likelihood-based methods,
and nonrandom nonresponse models. Emphasis on application of methods to applied problems, as well as on underlying theory. S/U or letter grading.

M234. Methodology in Clinical Trials. (4) (Same as Biostatistics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: Biostatistics 200A and 202B (or Statistics 100C). Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.


258. Introduction to Clinical Trials. (2) Lecture, two hours. Requisites: courses 170A, 266A. Limited to M.S. in Clinical Research students. Introduction to basic principles of good clinical trial design, trial implementation, and analysis. Letter grading.

259. Advanced Data Analysis. (4) Lecture, one hour; discussion, one hour. Preparation: completion of professional health sciences or M.D. degree. Required of all M.S. in Clinical Research students. Discussion of major data analysis methods. Students will analyze datasets of 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, (4-4). (Same as Medicine M260A-M260B) Lecture, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Requisites: courses 170A, 265A, and 266A, or permission of instructor. Application of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4). (Same as Medicine M260C.) Discussion, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative (CITI). Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychiatry M262.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writing and their general practice. Details of writing specific articles: methods, results, discussion, writing of review article. 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 sciences degree (M.D., D.D.S., D.N.Sc., or Ph.D.). Overview 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.

265A. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: M.D. or Ph.D. degree. Requisite: course 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include developing testable hypothesis, data management, and analysis strategies and written 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 presentation of findings (e.g., for master’s thesis and subsequent articles). Students are encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

265B. Data Analysis Strategies II. (2) Lecture, one hour; laboratory, one hour. Requisite: course 265A. Continuation of course 265A; use of SAS computer language. Letter grading.

266A. Applied Regression Analysis in Medical Sciences. (4). (Formerly numbered 171.) 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). (Formerly numbered 266B.) Lecture, three hours; discussion, one hour. Requisite: course 266A. Continuation of course 266A. Some traditional multivariate methods, such as principal component, factor analysis, cluster analysis, and more contemporary methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

M270. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisites: course 220 or Bioengineering CM286 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 M271 and Statistics M271.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Bioinformatics M260A or Statistics 100A or 100B. 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.

273. Stochastic Modeling in Molecular Cellular Biophysics. (4). Lecture, three hours; discussion, one hour. Requisite: Mathematics 170A or equivalent experience in probability, lower division physics, or physical chemistry. Most molecular systems are large collections of stochastic processes, and the behavior of such systems is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecular structures, and biological techniques that measure various biological processes. S/U or letter grading.


M282. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: Biostatistics 200A, one other 200-level biostatistics or statistics course. Longitudinal data analysis, graphing longitudinal data, specifying predictors, modeling variances and covariance, inference, computing hierarchical models, and random effects. S/U or letter grading.

M284. Methodology of Clinical Trials. (4). (Same as Biostatistics M238.) Lecture, three hours; discussion, two hours. Requisites: course M291, Biostatistics 200A. Methodological principles of clinical trials, actual practice and principles of trials. Considerable focus on phase two trials and multiclinical phase three trials. Emphasis on major inferential issues. 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. S/U or letter grading.

296A-296B. Advanced Topics in Clinical Pharmacology. (2-2). Lecture, one hour; discussion, one hour. Review of pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations, and contemporary drug development. S/U or letter grading.

299. Special Topics in Clinical Research. (2 to 6). Seminar, three hours. Requisites: courses M260A, M260B. In depth and advanced 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.

596. Directed Individual Study or Research in Bio- mathematics. (2 to 12). Tutorial, to be arranged. Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change. S/U or letter grading.

597. Preparation for M.S. or Ph.D. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8). Tutorial, to be arranged. Individual study. S/U grading.


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**Biomedical Physics**

**Interdepartmental Program**

**David Geffen School of Medicine**

**UCLA**

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**Michael McNitt-Gray, Ph.D., Chair**

Magnus Dahlbom, Ph.D., Graduate Adviser

**Faculty Committee**

Magnus Dahlbom, Ph.D. (Molecular and Medical Pharmacology)
Graduate Courses


200B. Nuclear Medicine Instrumentation. (4). Lecture, one hour; laboratory, three hours. Requisite: course 200A. Introduction to nuclear medicine instrumentation, including well ionization 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.

202A-202B. Applications of Medical Physics to Clinical Problems. (4-4-4). Clinic, four hours. Selected topics in clinical use of radioisotopes. S/U or letter grading.


205. Physics of Diagnostic Radiology. (4). Lecture, three hours; laboratory, one hour. Production of X-rays, basic interactions between X-rays and matter, X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, special procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.


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.


209. Digital Techniques in Radiological Sciences. (4). Lecture, three hours; discussion, one hour. Prerequisites: one course in C or another computer language. Basic principles of digital technology used in radiological sciences. Concepts and experience necessary to undertake radiological research in diverse computing environment. Discussion of relationship between computer and diagnostic equipment with regard to data acquisition, equipment interfacing, and data analysis. C language programming taught. 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 imaging, intravascular ultrasound, image postprocessing, immersion sonography, ultrasound physics, and physical properties of diagnostic ultrasound. 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 noninvasively by positron-emission tomography (PET). Validation of kinetic models to derive quantitative information from PET. Introduction to clinical and experimental application of PET. S/U or letter grading.

213. Quantitative Autoradiography. (4). Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart functions. Topics include 2-deoxyglucose method for metabolic rate; iodopyrine method for blood flow; amino acid method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation. S/U or letter grading.


217. Statistics and Data Analysis in Biomedical Physics. (2 to 4). Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulative paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.
218. Radiologic Functional Anatomy. (2), Lecture, two hours. Introduction to human anatomy, cell biology, and physiology as visualized through microscopy, molecular imaging, radiography, CT, MRI, ultrasound, PET, and SPECT. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4). (Formerly numbered 219.) (Same as Biocomputation M219.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, imaging 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 spectroscopy. 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. 220A. Biophysics; 220B. Medical Imaging; 220C. Therapeutic Medical Physics; 220D. Radiation Biology and Experimental Radiation Therapy.

221. Applied Health Physics. (4). Lecture, three hours; discussion, one hour. One course credit. Basics of radiation safety as applied to medical applications. Introduction to all regulatory issues pertaining to medical use of radiation. Letter grading.


223. Seminar: Radiation Biology. (4). Seminar, four hours. Exploration of physiologic and molecular mechanisms that impact on response of normal and malignant tissues to ionizing radiation, with particular emphasis on critical and high in-depth analysis of approaches through which such responses can be modified in therapeutic setting. Understanding of rationale for integrating biological information into process of treatment planning and delivery. S/U grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4). Lecture, four hours; discussion, one hour. One course credit. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, macromolecular-, tissue perfusion- and permeability-, advanced diffusion and q-space analysis, chemical exchange and magnetization transfer imagining, and relaxometry. 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 focus on interdisciplinary nature of this field. Exploration of two diseases in depth with detailed description of roles of physics-based diagnostic imaging and therapeutic options for each disease. Discussion of emerging future technologies as well as techniques that exploit interaction between diagnosis and therapy. Letter grading.

229. Advanced Topics in Magnetic Resonance Imaging. (4). Lecture, four hours. Enforced requisites: course 219, one course credit. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, macromolecular-, tissue perfusion- and permeability-, advanced diffusion and q-space analysis, chemical exchange and magnetization transfer imagining, and relaxometry. Letter grading.

228. Magnetism and Molecular Imaging. (4). Lecture, four hours; discussion, one hour. One course credit. Focus on microscale mechanisms of magnetic resonance imaging (MRI); implications for use of MRI in studies of macromolecules, molecular imaging, and molecular biology. Letter grading.

230. Computed Tomography: Theory and Applications. (4). (Same as Biocomputation M230.) Lecture, four hours; discussion, one hour. Overview of computerized tomography (CT) and magnetic resonance imaging (MRI) as imaging techniques. Letter grading.


M256. Functional Neuroimaging: Techniques and Applications. (3). (Same as Biocomputation M256 and Psychiatry M256.) Lecture, four hours; discussion, two hours. Advanced techniques for analyzing brain activation images. Letter grading.

M259. Microscopy in the Biological Sciences. (3). (Same as Chemistry and Biochemistry M259.) Lecture, one hour. One 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 medical and biological applications. Practical experience provided through series of imaging laboratories. Letter grading.


M268. Radiopharmaceutical Chemistry. (4). Lecture, four hours; discussion, two hours. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.

M269. Seminar: Medical Imaging. (1). Seminar, one hour. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.

M270. Medical Imaging. (1). Seminar, one hour. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.


M286. Radiopharmaceutical Chemistry. (4). Lecture, four hours; discussion, two hours. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2). (Same as Psychiatry M424.) Discussion, 90 minutes. Limited to 10 students. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.

M495. Special Studies in Biomedical Physics. (4). Seminar, two hours; laboratory, four hours. Preparation: successful completion of at least two of the following courses: Biomedical Physics 221, Magnetic Resonance Imaging 223, and Nuclear Physics 225. Letter grading.

Scope and Objectives

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 requirements.
Biostatistics

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Thomas R. Belin, Ph.D., Vice Chair

Professors
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William G. Cumberland, Ph.D.
Dorota M. Dabrowska, Ph.D.

Robert M. Elashoff, Ph.D.
Stefan Horvath, Ph.D., Sc.D.
Christina M. Ramirez Kitchen, Ph.D.
Dorota M. Dabrowska, Ph.D.
Gang Li, Ph.D.
Hongyu Liu, Ph.D.
Janet S. Sinhheimer, Ph.D.
Marc A. Suchard, Ph.D.
Robert E. Weiss, Ph.D.
Weng Kee Wong, Ph.D.

Professors Emeriti
Abdelmonem A. Affifi, Ph.D.
Nancy G. Berman, Ph.D.
Potter C. Chang, Ph.D.
Virginia A. Clark, Ph.D.
Frederick J. Dorey, Ph.D.
Donald Guthrie, Ph.D.
Robert I. Jennrich, Ph.D.

Associate Professors
Catherine M. Crespi, Ph.D., in Residence
Damil Senturk, Ph.D., in Residence
Catherine A. Sugar, Ph.D., in Residence

Assistant Professors
Donatello Teleca, Ph.D.

Lecturers
Jeffrey A. Gornbein, Dr.P.H.
Fei Yu, Ph.D.

Adjunct Professors
David Elashoff, Ph.D.
David W. Gjertson, Ph.D.
Martin L. Lee, Ph.D.
James W. Sayre, Dr.P.H.

Adjunct Assistant Professors
Karabi Nandy, Ph.D.
Angela P. Presson, Ph.D.

Scope and Objectives

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 M.S. and Ph.D. degrees in Biostatistics and, through the School of Public Health, the M.P.H. and Dr.P.H. degrees 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.

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 Study

Biomedical Research Minor

Admission to the Biomedical Research minor is competitive, and application follows completion of Biomedical Research 5HA, 10H, Honors College 70A, or an approved alternative course. Applications (see http://www.biomedresearchminor.ucla.edu) 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.

Required Lower Division Courses (9 units): Biomedical Research 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper Division Courses (24 units): 193H. Journal Club Seminars: Current Topics in Biomedical Research. (2), Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations based on recent literature in biomedicine. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2), Seminar, three hours. Limited to Biomedical Research minor students. Preparation of oral presentations on student laboratory research at UCLA. May be repeated for credit. Letter grading.

199, Directed Biomedical Research. (4), Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.

Biomedical Research

Lower Division Courses

5HA. Biomedical Research: Concepts and Strategies. (4), Lecture, three hours. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Letter grading.

5HB. Biomedical Research: Essential Skills and Concepts. (4), Lecture, three hours; discussion; one hour. Requisite: course 5HA. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Student investigation of one or more laboratories on campus and presentation of brief synopsis of single research project from one laboratory. Letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (6), Formerly numbered Life Sciences 10H). Lecture, 90 minutes; laboratory, six hours; computer laboratory, 90 minutes. Limited to 30 students. Basic training in biological research, including techniques in genetics, model organism, bioinformatics, functional genomics, electron microscopy. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

193H. Journal Club Seminars: Current Topics in Biomedical Research. (2), Seminar, three hours. Limited to Biomedical Research minor students. Preparation and discussion of recent papers from primary literature in biosciences. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2), Seminar, three hours. Requisite: course 193H. Limited to Biomedical Research minor students. Preparation of oral presentations based on student laboratory research at UCLA. May be repeated for credit. Letter grading.

199, Directed Biomedical Research. (4), Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.
Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Division. Available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Biostatistics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biostatistics.

Biostatistics
Upper Division Courses

100A. Introduction to Biostatistics. (4). Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one biological or physical sciences course. Suitable for juniors/seniors. Students who have completed courses in statistics may enroll only with consent of instructor. Not open for credit to students with credit for course 110A. Introduction to methods and concepts of statistical analysis. Sampling with special attention to those occurring in biological sciences. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4). Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 100A. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression. S/U or letter grading.

110A. Basic Biostatistics. (4). Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 110A. Designed for master’s and doctoral students in fields outside biostatistics. Topics in linear regression and other related methods. When and how to use linear regression and related methods and how to properly interpret results. Heavy emphasis on practical application as opposed to theoretical development. S/U.

110B. Topics in Applied Regression. (4). (Formerly numbered 201B.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 101A. Further studies in multiple linear regression, including applied multiple regression models, regression diagnostics and model assessment, factorial and repeated measure analysis of variance models, non-linear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedicine and public health scientific problems. Letter grading.

202A. Theoretical Principles of Biostatistics. (4). (Formerly numbered 295B.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of calculus and linear algebra. Introduction to main principles of probability, random variables, discrete and continuous distributions, bivariate distributions, and distributions of functions of random variables. Letter grading.


250A-250B:250C. Statistics in Psychiatric and Biobehavioral Research. (2-2-2). (Same as Psychiatry M266A-M266B-M268C.) Seminar, 90 minutes. Requisite: course 202B. Designed for graduate students. Examples from psychiatric literature used to illustrate statistical ideas and analysis strategies. Topics include experimental designs, sample size calculations, parametric versus nonparametric tests, regression, ANOVA, factor analysis, defining composite variables, causal inference. Computer used to illustrate basic data analysis. S/U or letter grading.


250C. Statistical Modeling in Epidemiology. (4). (Same as Epidemiology M212.) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Requisite: Epidemiology M204 or M211. Principles of modeling, including meanings of models, prior model specification, translation of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.

2510. Statistical Methods for Categorical Data. (4). (Same as Biostatistics M231.) Lecture, three hours; discussion, one hour. Prerequire: course 100B or 110B, Statistics 100B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.


M220. Advanced Experimental Statistics. (4). (Same as Psychological Science M217.) Lecture, four hours. 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.

230. Statistical Graphics. (4). Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: courses 110A, 110B. Graphical data analysis emphasizes use of visual displays of quantitative data to obtain insight into data structure by exploring patterns and relationships, and to enhance classical numerical analyses, especially assumption validity checking. Principles of graph construction, graphical methods, and perception issues. S/U or letter grading.

M232. Statistical Analysis of Incomplete Data. (4). (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisite: Statistics 100B. Discussion of statistical analysis of incomplete data sets, with material from sample survey, econometric, biometric, psychometric, and general statistical literature. Topics include treatment of missing data in statistical packages, missing data in ANOVA and regression imputation, weighting, likelihood-based methods, and non-random nonresponse models. Emphasis on application of methods to applied problems, as well as on underlying theory. S/U or letter grading.


M234. Applied Bayesian Inference. (4). (Same as Biostatistics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 200A, and 200B (or Statistics 100C). 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.

M236. Longitudinal Data. (4). (Same as Biomathematics M282.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: course 200A, one other 200-level biostatistics or statistics course. Longitudinal data analysis, graphing longitudinal data, specifying predictors, modeling variances and covariance, inference, computing, hierarchical models, and random effects. S/U or letter grading.

M237. Applied Genetic Modeling. (4). (Same as Biomathematics M207B and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: courses 1 T-S of computer analysis of genetic data; laboratory reports required. Course complements M272; students may take either and are encouraged to take both. S/U or letter grading.


M239. Mathematical and Statistical Phylogenetics. (4). (Same as Biomathematics M211 and Human Genetics M237.) Lecture, three hours; laboratory, one hour. Requisites: courses 110A, 110B, Mathematics 170A. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolution, tree reconstruction methods, studies of viral evolution, phylogeny, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

240. Master's Seminar and Research Resources for Graduating Biostatistics M.S. Students. (4). Seminar, three hours. Introduction to resources for finding statistical consulting, discussion of principles, and methods of making statistical presentations and how to write statistical reports, including writing abstracts and choice of key words. Discussion of journal article preparation and submission process. Focus on process to help students make progress on their master's reports. Letter grading.


250A-250B. Linear Statistical Models. (4-4). Lecture, three hours; discussion, one hour. Preparations: one upper division theoretical statistics course. Topics include linear algebra, applied to linear statistical models, distribution of quadratic forms, Gauss/Markov theorem, fixed and random component models, balanced and unbalanced designs. Letter grading.

251. Multivariate Biostatistics. (4). Lecture, three hours; discussion, one hour. Requisite: course 250A. Multivariate analysis as used in biological and medical situations. Topics from multivariate distributions, component analysis, factor analysis, discriminant analysis, MANOVA, MANCOVA, longitudinal models with random coefficients. S/U or letter grading.


256. Advanced Mathematical Statistics. (4). Lecture, three hours; discussion, one hour. Requisites: courses 202A, 202B, 255. Survey of advanced topics in mathematical statistics, with special emphasis on applications to biostatistics. Topics include finite sample and asymptotic criteria in decision theory, basic concepts from empirical processes theory, minimum distance estimation in parametric and nonparametric models, minimax and Bayes procedures, testing hypotheses and confidence procedures for discrete and continuous data. S/U or letter grading.


M272. Theoretical Genetic Modeling. (4). (Same as Biomathematics M207A and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.


285. Advanced Topics: Recent Developments. (4). Lecture, three hours; discussion, one hour. Advanced topics and developments in biostatistics not covered in Biostatistics M210 through 219 or 270 through 276 or in other courses. Possible topics include time-series analysis, classification procedures, correspondence analysis, etc. S/U or letter grading.


296. Seminar: Research Topics in Biostatistics. (1 to 4). Seminar, two hours. Advanced study and analysis of current topics in biostatistics. Discussion of current research and literature during the semester, speciality of faculty member teaching course. S/U grading.

400. Field Studies in Biostatistics. (2 or 4). Fieldwork, to be arranged. Field observation and studies in selected community organization to promote medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units may be applied toward 44-unit minimum total required for M.P.H. degree. Letter grading.

402A. Principles of Biostatistical Consulting. (2). Lecture, one hour; discussion, one hour. Requisite: course 100B or 110B. Introduction to practical issues in management and analysis of data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

405. Applied Multivariate Biostatistics. (4). Lecture, three hours; laboratory, one hour. Preparations: at least two upper division research courses. Requisites: course 100B. Use of multiple regression, principal components, factor analysis, discriminant function analysis, logistic regression, and canonical correlation in biomedical data analysis. S/U (optional only for nondivision majors) or letter grading.

409. Doctoral Statistical Consulting Seminar. (2). Seminar, one hour; laboratory, four hours. Designed for graduate students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators and develop design and protocol for data analysis, implement data protocol when data is obtained, and write up study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. (4). Lecture, three hours; discussion, two hours. Requisites: course 200A, 100B. Designed to assess antitumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of controls; prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials—administration, comparability, protocols, clinical standards, data collection and management. S/U (optional only for nondivision majors) or letter grading.

412. Statistical Methods for Case-Control Studies. (4). Lecture, three hours. Requisite: course 200A. Statistical designs, sampling statistics, and analytic models of case-control studies. Special topics such as exploratory analyses, multiplicity of analyses, cross-validation, small sample performances of variance estimators, measurement error in covariates, and incomplete data. S/U or letter grading.

413. Introduction to Pharmaceutical Statistics. (4). Lecture, three hours; discussion, one hour. Requisites: courses 100A, 100B. Exploration of various types of statistical techniques used in pharmaceutical and related industries. Topics include bioassay and other assay techniques (e.g., ELISAs and FACS analysis), quality control techniques, and pharmacokinetic and pharmacodynamic modeling. S/U or letter grading.


419. Special Topics: Applied Statistics. (4). Lecture, three hours; discussion, one hour. Requisite: course 100B. Special topics in applied statistics not covered in other courses in professional series. S/U or letter grading.

495. Teacher Preparation in Biostatistics. (2). Seminar, two hours. Preparation: consent of UCLA graduate advisor. Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. To be arranged. Preparation: consent of UCLA graduate advisor. Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. 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. Enforced requisites: courses 110A, 110B, 400, 402A. Students meet weekly with their advisor and also work independently on their proposed project. Course fosters abilities of students to select relevant design and analysis techniques, synthesize knowledge, and apply insights to address public health problems. Oral examination and written report describing how students have used biostatistical methods to assess data from public health study required. May be repeated for credit. S/U grading.

595. Effective Integration of Biostatistical Concepts in Public Health Research. (4). Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H., and M.S. minimum total course requirement. May be repeated for credit. Letter grading.

597. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 12). Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12). Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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**Chemical and Biomolecular Engineering**

**Henry Samueli School of Engineering and Applied Science**

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James C. Liao, Ph.D., Chair
Yi Tang, Ph.D., Vice Chair

**Professors**

Jane P. Chang, Ph.D. (William Frederick Sayer Professor of Materials Electrochemistry)
Panagiotis D. Christofides, Ph.D.
Yoram Cohen, Ph.D.
James F. Davis, Ph.D.
Robert F. Hicks, Ph.D.
James C. Liao, Ph.D. (Ralph M. Parsons Foundation Professor of Chemical Engineering)
Yurifeng Lu, Ph.D.
Vasilios I. Manousiouthakis, Ph.D.
Harold G. Monbouquet, Ph.D.
Selin M. Senkan, Ph.D.
Y. Tang, Ph.D.

**Professors Emeriti**

Louis J. Ignamo, Ph.D. (Nobel laureate, Jerome J. Belzer Professor Emeritus of Medical Research)
Eldon L. Knuth, Ph.D.
Ken Nobe, Ph.D.
William D. Van Vorst, Ph.D.
Vincent L. Vilker, Ph.D.
A.R. Frank Wazzan, Ph.D., Dean Emeritus

**Associate Professor**

Tatiana Segura, Ph.D.

**Assistant Professor**

Yvonne Y. Chen, Ph.D.

**Scope and Objectives**

The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of biomolecular engineering, systems engineering, and advanced materials processing and span the general themes of energy/environment and nanotechnology. Students are expected to be able to design a chemical or biological system, component, or process that meets technical and economical design objectives, with consideration of environmental, social, and ethical issues, as well as sustainable development goals. In addition, they should be able to apply their knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering to analysis and design of chemical and biochemical processes and products; function on multidisciplinary teams; identify, formulate, and solve complex chemical and biological engineering problems; and communicate effectively, both orally and in writing.

**Chemical Engineering B.S. Capstone Major**

The chemical engineering curricula provide a high quality, professionally oriented education in modern chemical engineering. The biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options provide students an opportunity for exposure to a subfield of chemical and biomolecular engineering. In all cases, balance is sought between engineering science and practice.

**Chemical Engineering Core Option**

**Preparation for the Major**

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1c, 14AL, 48L.

**The Major**

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; Life Sciences 2, 3; Chemistry 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Atmospheric and Oceanic Sciences 104, Chemistry and Biochemistry 113A, 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 two elective courses (8 units) from Chemical Engineering 113, 118, 119, 121, 125, 126, 135, 1340.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Biomedical Engineering Option
Preparation for the Major
Required: Chemical Engineering 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Chemistry 113A, 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 biomedical elective course (4 units) from Chemical Engineering C115, C121, C124, C125, CM127, C135, or CM145 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser).

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Biomolecular Engineering Option
Preparation for the Major
Required: Chemical Engineering 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Chemistry and Biochemistry 113A, 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 two elective courses (8 units) from Chemical Engineering 113, 118, 119, 121, 125, 135, C140 (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Degrees
The Department of Chemical and Biomolecular Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Chemical Engineering.

Chemical Engineering
Lower Division Courses
2. Technology and Environment. (4). Lecture, four hours; outside study, eight hours. Natural and anthropogenic flows of materials at global and regional scales. Case studies of natural cycles include global warming (CO2), cycles, stratospheric ozone depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow of materials in industrial economies compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

10. Introduction to Chemical and Biomolecular Engineering. (5). Lecture, four hours; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technological problems in production of microelectronic devices, design of chemical plants for minimum environmental impact, application of nanotechnology to chemical sensing, and genetic-level design of recombinant microbes for chemical synthesis. Letter grading.

Upper Division Courses
100. Fundamentals of Chemical and Biomolecular Engineering. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 32B (may be taken concurrently), P/NP. Introduction to analysis and design of industrial chemical processes. Material and energy balances. Introduction to programming in MATLAB. Letter grading.


101C. Mass Transfer. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of mass species transport. Fick law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to thermodynamics of chemical and biological processes. Work, energy, heat, and first law of thermodynamics. Second law, extremum principles, entropy, and free energy. Ideal and real gases, property evaluation. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. Letter grading.

103. Separation Processes. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101B. Application of principles of thermodynamics and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.

104A. Chemical and Biomolecular Engineering Laboratory II. (4). Formerly numbered 104AL. Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 100. Enforced corequisite: course 101B. Recommended: course 102B. For students who have completed the full Design and Performance of one original experimental study involving transport, separation, or another aspect of chemical and biomolecular engineering. Basic statistical theory needed. May be repeated for credit. Writing of sections of technical reports and their contents; writing clearly, concisely, and consistently; importance of word choices and punctuation in multilingual engineering environments and of following required formatting. Letter grading.

104B. Chemical and Biomolecular Engineering Laboratory II. (8). Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Enforced requisites: courses 101C, 103, 104A. Course consists of four experiments in chemical engineering unit operations, each of two weeks duration. Students present their results both written and orally. Written report includes sections on theory, experimental procedures, scaleup and process design, and error analysis. Letter grading.

104C. Semiconductor Processing. (3). Lecture, four hours; outside study, one hour. Enforced requisite: course 101C. Enforced corequisite: course 104CL. Basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, metallization, and statistical design of experiments and 3σ analysis. Presentation of student results in both written and oral form. Letter grading.

104CL. Semiconductor Processing Laboratory. (3). Laboratory, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced prerequisite: course 104C. Series of experiments that emphasize basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used to make CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, and metallization. Hands-on equipment includes transistors, diodes, and capacitors. Letter grading.


107. Process Dynamics and Control. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101C, 103 or 125, 106 or C115. Principles of dynamics modeling and start-up behavior of chemical engineering processes. Design and applications of chemical process computer control. Letter grading.

108A. Process Economics and Analysis. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 or (125), 104A, 106 or (C115). Integration of chemical engineering fundamentals such as transport phenomena, thermodynamics, operations, and reaction engineering and simple economic principles for purpose of designing chemical processes and evaluating alternatives. Letter grading.

108B. Chemical Process Computer-Aided Design and Analysis. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 or (C125), 106 or (C115), 108A. Civil and Environmental Engineering M20 (or Mechanical and Aerospace Engineering M20), Introduction to application of some mathematical and computing methods to chemical engineering design problems; use of simulation programs as automated method of performing steady state material and energy balance calculations. Letter grading.

109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20, Enforced corequisite: course 101A. Numerical methods for computation of solution of systems of linear algebraic equations, ordinary differential equations, and partial differential equations. Chemical and biomolecular engineering examples used throughout to illustrate application of these methods. Use of MATLAB as platform (programming environment) to write programs based on numerical methods to solve various problems arising in chemical engineering. Letter grading.

110. Intermediate Engineering Thermodynamics. (4). Lecture, four hours; outside study, eight hours. Enforced requisite: course 102B. Principles and engineering applications of statistical and phenomenological thermodynamics. Engineering applications of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and adsorption; nonequilibrium thermodynamics and coupled transport. Letter grading.

111. Cryogenics and Low-Temperature Processes. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenics and cryogenic engineering science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature refrigeration, liquefaction, compression, and storage. Cryogenic surfaces and other special conditions. Concurrently scheduled with course C211. Letter grading.


113. Air Pollution Engineering. (4). Lecture, four hours; preparation, four hours; outside study, seven hours. Enforced requisites: courses 101C, 102B, Integrated approach to air pollution, including concentration of atmospheric pollutants, air pollution standards, and pollution sources and control technology, and relationship of air quality to emission sources. Links air pollution to multimedia environmental assessment. Letter grading.

114. Electrochemical Processes and Corrosion. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102A, 102B (or Materials Science 130), Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes and metallic corrosion. Primary emphasis on fundamental approach to analysis of electrochemical and corrosion processes. Specific topics include corrosion of metals and semiconductors, metal and semiconductor surface finishing, passivity, electrodeposition, electrolecution, batteries and fuel cells, electrochemistry and bioelectrochemical processes. May be concurrently scheduled with course C214. Letter grading.

115. Biochemical Reaction Engineering. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course CM215. Letter grading.

116. Surface and Interface Engineering. (4). Lecture, four hours; discussion, one hour; outside study, five hours. Enforced requisite: course 101A. Microscopic and nanoscopic view of solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and molecular electronics. Concurrently scheduled with course C216. Letter grading.


C212. Membrane Science and Technology. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101C, 103. Fundamentals of membrane science and technology, separations at micro, nano, and molecular/angstrom scale with membranes. Relationship between structure/morphology of dense and porous membranes and their
separation characteristics. Use of nanotechnology for design of selective membranes and models of membrane transport (flux and selectivity). Examples provided from various fields/applications, including bioengineering, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C221. Letter grading.

C124. Cell Material Interactions. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Life Sciences 2, 3, 23L. Introduction to design and synthesis of biomaterials for regenerative medicine, tissue culture, and drug delivery. Biological principles of cellular microenvironment and design of extracellular matrix analogs using biological and engineering principles. Biomaterials for growth factor delivery and gene delivery and their application in tissue engineering and cellular imaging. May be concurrently scheduled with course CM245. Letter grading.

188. Special Courses in Chemical Engineering. (4). Seminar, four hours outside study, eight hours. Special topics in chemical engineering for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit with instructor change. Letter grading.

194. Research Group Seminars: Chemical Engineering. (4). Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit with instructor change. Letter grading.

199. Directed Research in Chemical Engineering. (2 to 8). Tutorial, to be arranged. Limited to juniors and seniors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culmination of project is required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4). Lecture, four hours; outside study, eight hours. Requisite: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with emphasis on materials science and chemical 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.

201L. Materials for Fuel Cells. (4). Lecture, four hours; outside study, eight hours. Requisite: course 200 or Chemistry C223A or Physics 215A. Modern simulation techniques for classical molecular systems. Monte Carlo and molecular dynamics in various ensembles. Applications to liquids, solids, and polymers. Letter grading.


211L. Cryogenic and Low-Temperature Processes. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenics and cryoenineering science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C111. Letter grading.


214. Electrochemical Processes and Corrosion. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes and metallic corrosion. Primary emphasis on fundamental approach to analysis of electrochemical and corrosion processes. Specific topics include corrosion of metals and semiconductor, electrochemical metal and semiconductor surface finishing, passivity, electrodeposition, electrodesposition, batteries and fuel cells, electrochemistry and biochemical processes. May be concurrently scheduled with course C115. Letter grading.

CM215. Biomedical Reaction Engineering. (4). (Same as Bioengineering M215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of chemical thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course C115. Letter grading.

C216. Surface and Interface Engineering. (4). Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: Chemistry 113A. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, 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 C114. Transport phenomena in electrochemical systems; relationships between molecular transport, convective and electrode kinetics, along with applications to industrial processes to industrial processes and technologies involving design, and modern battery technology. 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; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101C, 103. Fundamentals of membrane science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale with membranes. Relationship between structure and morphology of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective membranes and models of membrane transport (flux and selectivity) provided from various fields/applications, including bioengineering, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C121. Letter grading.


223. Design for Environment. (4). Lecture, four hours; outside study, eight hours. Limited to graduate chem- ical engineering, materials science and engineering, or Master of Engineering program students. Design of products for meeting environmental objectives; life- cycle inventories; lifecycle impact assessment; design for energy efficiency; design for waste minimization, computer-aided design tools, materials selection methods. Letter grading.


CM225. Bioseparations and Bioprocess Engineer- ing. (4). (Same as Bioengineering M225.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reac- tors. Concurrently scheduled with course C125. Letter grading.

CM227. Synthetic Biology for Biofuels. (4). (Same as Chemistry CM227.) Lecture, four hours; discus- sion, one hour; outside study, seven hours. Requi- sites: Course CM103 or Life Sciences 3 or 23L. En- gineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves de- signing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biological regula- tion and are aided by tools in bioinformatics, sys- tems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and func- tion, and bioinformatics. Use of systems modeling for metabolic networks to design microorganisms for en- ergy production. Concurrently scheduled with course CM127. S/U or letter grading.


234. Plasma Chemistry and Engineering. (4). Le- cture, four hours; outside study, eight hours. Designed for graduate students. Fundamentals of Appli- cation of chemistry, physics, and engineering princi- ples to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and etching of materials. Examination of atomic, molecu- lar, and ionic phenomena involved in plasma and ion-beam processing of semiconductors, etc. Letter grading.

C235. Advanced Process Control. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control. Topics include (1) Lyapu- nov stability for autonomous nonlinear systems in- cluding converse theorems, (2) input to state stability, interconnection systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control, linear systems, (5) advanced methods for tuning of classical controllers, and (6) in- troduction to control of distributed parameter sys- tems. Concurrently scheduled with course C135. Letter grading.

236. Chemical Vapor Deposition. (4). Lecture, four hours; outside study, eight hours. Enforced requisites: courses 210, 221E. Chemical vapor deposition is widely used to deposit thin films that comprise microelectronic de- vices. Topics include reactor design, transport phe- nomena, gas and surface chemical kinetics, structure and composition of deposited films, and relationship between process conditions and film properties. Letter grading.

C240. Fundamentals of Aerosol Technology. (4). Lecture, four hours; outside study, eight hours. En- forced requisite: course 101C. Technology of particle/ gas systems with applications to (1) gas depolymerization of fine particles, and catalysis. Particle transport and deposition, optical properties, experimental methods, dynamics and control of par- ticle formation, are concurrently scheduled with course C140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4). (Same as Bioengineering CM245.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Life Sciences 3, 23L. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular re- search, tools, protein expression, in vitro selection, di- rected mutagenesis and protein engineering, DNA- based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioin- formatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.


250. Computer-Aided Chemical Process Design. (4). Lecture, four hours; outside study, eight hours. Requisite: course 108B. Application of optimization methods in chemical process design; computer aids in process engineering; process modeling; systematic flowsheet invention; process synthesis; optimal de- sign and operation of large-scale chemical processing systems. Letter grading.


270. Principles of Reactor and Transport Phe- nomena. (4). Lecture, four hours; laboratory, eight hours. Fundamentals in transport phenomena, chem- ical reaction kinetics, and thermodynamics at molecu- lar level. Topics include Boltzmann equation, micro- scopic chemical kinetics, transition state theory, and statistical analysis. Examination of applications and calculations related to state-of-art research areas in chem- ical engineering. Letter grading.

270R. Advanced Research in Semiconductor Manufactur- ing. (6). Laboratory, nine hours; outside study, nine hours. Limited to graduate chemical engineering students in M.S. semiconductor manufacturing op- tion. Supervised research in processing semicon- ductor materials and devices. Letter grading.

M280A. Linear Dynamic Systems. (4). (Same as Electrical Engineering M280A and Mechanical and Aerospace Engineering M270A.) Lecture; four hours; outside study, eight hours. Requisite: Electrical Engi- neering 141 or Mechanical and Aerospace Engi- neering 141 or Aerospace Engineering M272A. State-space representations of linear systems: time- invariant (LTI) and time-varying (LTV) systems in con- tinuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Jordan/Hamiltonian form, solution of state equations; stability, controllability, ob- servability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function tech- niques. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4). Lecture, four hours; outside study, eight hours. Requisites: courses M280A, M282A. Designed for graduate students. Introduction to advanced dynamical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) linear operator and stability theory (basic results on Banach and Hilbert spaces, semigroups, convergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.
290. Special Topics. (2 to 4). Seminar, four hours. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis, polymers, optimization in chemical process design. May be repeated for credit with topic change. Letter grading.
M297. Seminar: Systems, Dynamics, and Control Topics. (2). Same as Electrical Engineering M248S and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.
298A-298Z. Research Seminars. (2 to 4 each). Seminar, to be arranged. Requisites for each offering announced in advance by department. Lectures, discussions, student presentations, and projects in areas of current interest. May be repeated for credit. S/U grading.
299. Departmental Seminar. (2). Seminar, two hours. Limited to graduate chemical engineering students. Seminars by leading academic and industrial chemical engineers on development or application of recent technological advances in discipline. May be repeated for credit. S/U grading.
375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
495A. Teaching Assistant Training Seminar. (2). Seminar, two hours; outside study, four hours; one-day intensive training at beginning of Fall Quarter. Limited to graduate chemical engineering students. Required of all new teaching assistants. Special seminar on communicating chemical engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of grading, advising, and rapport with students. S/U grading.
495B. Teaching with Technology for Teaching Assistants. (2). Seminar, two hours; outside study, four hours. Limited to graduate chemical engineering students. Designed for teaching assistants interested in learning more about effective use of technology and ways to incorporate that technology into their classrooms for benefit of student learning. S/U grading.
596. Directed Individual or Tutorial Studies. (2 to 8). Tutorial, to be arranged. Limited to graduate chemical engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

**Chemistry and Biochemistry**

**Chemistry and Biochemistry**

College of Letters and Science

UCLA

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James U. Bowie, Ph.D.

Robijn F. Bruinsma, Ph.D.

Guillaume F. Chanteau, Ph.D.

Catherine H. Cottrell

Steven G. Clarke, Ph.D., (Elizabeth R. and Thomas E. Ploıt Professor of Gerontology)

Robert T. Clubb, Ph.D.

Albert J. Courey, Ph.D.

Timothy J. Deming, Ph.D.

Xiangfeng Duan, Ph.D., (Howard Reiss Career Development Professor)

David S. Eisenberg, D.Phil., (Paul D. Boyer Professor of Molecular Biology and Biochemistry)

Juli F. Felgyn, Ph.D., (Christopher S. Foote Professor of Pharmacology)

Peter M. Felker, Ph.D.

Miguel A. Garcia-Garibay, Ph.D.

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Robin L. Garland, Ph.D.

William M. Gelbart, Ph.D.

James K. Gimzewski, Ph.D.

James W. Gober, Ph.D.

Yung-Ya Lin, Ph.D.

Robert L. Scott, Ph.D.

Clifford A. Smith, Ph.D.

M. Frederick Hawthorne, Ph.D.

Raphael D. Levine, Ph.D.

James C. Liao, Ph.D. (Ralph M. Parsons Foundation Professor of Chemical Engineering)

Joseph A. Loo, Ph.D.

Harold G. Martinson, Ph.D.

Thomas G. Mason, Ph.D.

Heather D. Maynard, Ph.D.

Sabathia Merchant, Ph.D.

Daniel Neuhauser, Ph.D.

C. Kumar N. Patel, Ph.D.

Emil Reisler, Ph.D.

Yves F. Rubin, Ph.D.

Benjamin J. Schwartz, Ph.D.

Yi Tang, Ph.D.

Sarah H. Tolbert, Ph.D.

John T. Wasson, Ph.D.

Paul S. Weiss, Ph.D. (Fred Kavli Professor of Nanosystems Sciences)

Richard L. Weiss, Ph.D.

Shimon Weiss, D.Sc. (Dean M. Willard Professor of Chemistry)

Gerard C.L. Wong, Ph.D.

Todd O. Yeates, Ph.D.

Jeffrey I. Zink, Ph.D.

**Professors Emeriti**

Frank A.L. Anet, Ph.D.

Daniel E. Atkinson, Ph.D.

Kyle D. Bayes, Ph.D.

Paul M. Beyer, Ph.D. (Nobel laureate)

Richard E. Dickerson, Ph.D.

Mostafa A. El-Sayed, Ph.D.

Jay D. Gralla, Ph.D.

E. Russell Hardwick, Ph.D.

M. Frederick Hawthorne, Ph.D.

Charles K. Hobart, Ph.D.

Charles A. West, Ph.D.

**Associate Professors**

Delory A. Baugh, Ph.D.

Paul J. Dion, Ph.D.

Yung-Ya Lin, Ph.D.

Craig A. Merlic, Ph.D.

**Assistant Professors**

Anastassia N. Alexandrova, Ph.D.

Louis S. Bouchard, Ph.D.

Sriram Kosuri, Ph.D., (Linda and Fred Wudl Professor)

Margot E. Quinlan, Ph.D., (John F. Endowed Professor of Molecular Biology and Biophysics)

Jorge Torres, Ph.D. (John McTague Career Development Professor of Chemistry and Biochemistry)

**Senior Lecturer S.O.E.**

Arlene A. Russell, Ph.D.

**Senior Lecturers**

Steven A. Hardinger, Ph.D.

Laurence Lavelle, Ph.D.

**Lecturer**

Erik R. Scrib, Ph.D.

**Adjunct Professors**

R. Stanley Williams, Ph.D.

Omar M. Yaghi, Ph.D.

**Scope and Objectives**

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 compounds (organic chemistry), the chemistry of living systems (biochemistry), and the physical behavior of substances in relation to their structures and chemical properties (physical chemistry). The Chemistry/Materials Science major is designed for students who are interested in the applications of chemistry for the design, synthesis, and study of new materials.

**Undergraduate Study**

**Admission**

Students entering UCLA directly from high school who declare a Chemistry, Biochemistry, or Chemistry/Materials Science major at the time of application are automatically admitted to that major.

UCLA students who wish to enter one of the majors 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 departmental majors with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Biochemistry majors must also complete courses equivalent to Life Sciences 2 and 3; Chemistry majors should have completed the equivalent of Mathematics 32B; 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 consult the Undergraduate Advising Office in 4006 Young Hall for assistance with the articulation of transfer coursework.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm转让guide.htm](http://www.admissions.ucla.edu/prospect/adm转让guide.htm) for up-to-date information regarding transfer selection for admission.

**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 prerequisite 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**

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 study in fields that emphasize research involving chemistry, engineering, and applied science.

Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Advising Office in 4006 Young Hall.

**Chemistry B.S.**

The Chemistry major is for students who intend to pursue a career in chemistry.

**Chemistry Concentration**

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 32B, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

**The Major**

Required: Chemistry and Biochemistry 110A, either 110B or 111B, 113A, 114 (or 114H), either 136 or 144, 153A, 153L, 171, 172, 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, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

**The Major**

Required: Chemistry and Biochemistry 110A, 110B, 113A, 113B, 114 (or 114H), 153A, 171, 172; 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 Advising Office website at [http://www.chemistry.ucla.edu/undergraduate](http://www.chemistry.ucla.edu/undergraduate) for a list of approved electives.

By the junior year, students are strongly encouraged to join a research group within the physical chemistry division to obtain firsthand experience with state-of-the-art physical chemistry research.

**Biochemistry B.S.**

The Biochemistry major is for students preparing for careers in biochemistry or other fields requiring extensive preparation in both chemistry and biology.

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 2, 3, 4; Mathematics 31A, 31B, 32A (33A strongly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH) and 4BL, or 6A, 6B, and 6C (or 6AH, 6BH, and 6CH).

**The Major**

Required: Chemistry and Biochemistry 110A, 153A, 153B, 153C, 153L, 154, 156; one additional upper division or graduate course in chemistry and biochemistry; and three elective upper division or graduate courses (12 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 highly recommended). Refer to the Undergraduate Advising Office website at [http://www.chemistry.ucla.edu/undergraduate](http://www.chemistry.ucla.edu/undergraduate) for a list of approved electives.

**General Chemistry B.S.**

The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The requirements are accordingly quite flexible. The major may be appropriate for some students who plan to enter professional schools, such as those of pharmacy, dentistry, or public health. This major cannot be taken as part of a double major. Students must declare the major before reaching 135 units.

**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, and 1C (or 1AH, 1BH, and 1CH), 4BL.
Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153L, 171; three additional upper division courses in the department (at least one must be a laboratory course); six additional upper division courses. A 2.0 grade-point average is required in all upper division courses in the department. Acceptance into the major is based on an original written proposal that is coherent in terms of student interests and objectives. The proposal should specify which courses students plan to apply toward the major and requires the approval of the faculty adviser.

Chemistry/Materials Science B.S.
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.

Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, Mathemastics 31A, 31B, 32A, 32B, 32B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 171, 172 or C180 or C181, 185, 4 units from 110B, C113B, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 121, 150 or 160, 131, 8 units from C111, 121, 122, 132, 150, 160, 162, C180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L. The following courses may be applied once toward the major: Chemistry and Biochemistry 110A, 110B, C181, Materials Science and Engineering 121, 150, 160.

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, 32B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, 172, 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
Admission
The honors program provides exceptional Chemistry and Biochemistry Department 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 further information and application forms, students should consult the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Majors in Chemistry and Biochemistry 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, 20A, 30, or 60, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A. Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor's degree in their major and a specialization in Computing.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Chemistry and Biochemistry offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Chemistry and Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Biochemistry and Molecular Biology.

Chemistry and Biochemistry
Lower Division Courses
2. Introductory Chemistry. (4). Lecture, two hours; discussion, two hours. Not open to students with credit for course 14A or 20A. Concept of submicroscopic world of chemistry, ranging from protons to proteins in subject matter. P/NP or letter grading.

7. Nanoscience and Nanotechnology Laboratory. (2). Seminar, discussion, and laboratory, 32 hours. Limited to high school students. Key concepts of nanoscience and nanotechnology, including various approaches to nanofabrication (bottom-up and top-down). Fabrication of nanostructures and devices, collection of scientific data using those devices, analysis of data, and presentations of student results. Offered in summer only. P/NP grading.

14A. Atomic and Molecular Structure, Equilibria, Acids, and Bases. (4). Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Not open to students with credit for course 20A. Introduction to physical and general chemistry principles; atomic structure based on quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, and molecular orbital theory); gaseous and aqueous equilibria; properties of inorganic and organic acids, bases, buffers; titrations. P/NP or letter grading.

14B. Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry. (4). Lecture, three hours; discussion, one hour. Enforced requisite: course 14A with grade of C– or better. Requisite or corequisite: Life Sciences 30A or Mathematics 3A or 31A with grade of C– or better. Not open to students with credit for course 20A, 20B, or 30A. Phase changes; thermodynamics, first, second, and third laws of thermodynamics; free energy changes; electrochemistry and its role as energy source; chemical kinetics, including catalysis, reaction mechanisms, and enzymes; coordination compounds; general classes and naming of organic molecules; structure, conformations, and relative energies of organic molecules; application of thermodynamics and kinetics to organic and biochemical reactions; use of molecular modeling software to illustrate molecular structures and their relative energies. P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I. (3). Lecture, one hour; laboratory, three hours. Enforced requisite: course 14A with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH me-
Course 30A. P/NP or letter grading.

14C. Structure of Organic Molecules. (4). Lecture, three hours; discussion, one hour. Enforced requisite: course 14B with grade of C– or better. Not open to students with credit for course 30A. Continuing studies in structure of organic molecules, with emphasis on biological applications. Resonance, stereochemistry, conjugation, and aromaticity; spectroscopy (NMR, IR, and mass spectrometry); introduction to effects of 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. Enforced requisites: courses 14B and 14BL, with grades of C– or better. Enforced corequisite: course 14C. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectroscopy, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titration. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4). Lecture, three hours; discussion, one hour. Enforced requisite: one hour. Enforced requisite: course 30A (or 30AH) and course 30AL, with grades of C– or better. Enforced corequisite: course 30B. Basic experimental techniques in organic synthesis (distillation, extraction, and performing reactions) and organic analytical chemistry (melting and boiling point, refractive index, chromatography, IR, NMR, GC). Single and multistep synthesis of known compounds. Organic spectros- copy, including mass spectrometry, infrared spectroscopy, and proton and carbon nuclear magnetic resonance spectroscopy. P/NP or letter grading.

30BL. Organic Chemistry Laboratory I. (3). Lecture, one hour; laboratory, four hours. Enforced requisites: courses 30A (or 30AH) and 30AL, with grades of C– or better. Enforced corequisite: course 30B. Basic experimental techniques in organic synthesis (distillation, extraction, and performing reactions) and organic analytical chemistry (melting and boiling point, refractive index, chromatography, IR, NMR, GC). Single and multistep synthesis of known compounds. Organic spectros- copy, including mass spectrometry, infrared spectroscopy, and proton and carbon nuclear magnetic resonance spectroscopy. P/NP or letter grading.

103. Environmental Chemistry. (4). Lecture, four hours; discussion, one hour. Requisites: courses 30B, 30BL, 110A, 153A (or 153AH), 153L. Chemical aspects of air and water pollution, solid waste disposal, energy resources, and pesticides. Chemical re- actions in environment and effect of chemical pro- cesses on environment. P/NP or letter grading.

105. Introduction to Chemistry of Biology. (4). Lecture, three hours; discussion, one hour. Enforced requisite: course 153A with grade of C– or better. In- troduction to chemical biology. Topics include com- putational chemical biology, utility of synthesis in bio- chemical research, peptidomimetics, designed re- agents for cellular imaging, natural product biosynthesis, protein engineering and directed evolu- tion, cell biology of metal ions, metal-containing drugs. Concurrently scheduled with course C200. P/NP or letter grading.

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C100. Genomics and Computational Biology. (5). Lecture, three hours; discussion, one hour. Enforced requisite: course 153B. Molecular Cell, and Developmental Biology 144, or 165B. Intro- duction for biochemistry students of technologies and experimental data of genomics, as well as computa- tional tools for analyzing them. Biochemistry and mo- lecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict in- teractions across whole organisms, populations, and species. Spectral computational tools such as database becomes essential daily activity for biomedical scientists. Core principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C200. P/NP or letter grading.

Upper Division Courses


110A. Physical Chemistry: Chemical Thermody- namics. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 20B, Mathematics 32A or 3C (for life sciences majors), Physics 1A, 1B, and 1C (may be taken concurrently), or 1AH, 1BH, and 1CH (may be taken concurrently), or 1A, 2A, and 6C (may be taken concurrently). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.

113A. Physical Chemistry: Introduction to Quantum Mechanics. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 20B, Mathematics 32A, 32B, 33B, Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C, with grades of C– or better. Departure from classical mechanics: Schrödinger versus Newton equations; molecular dynamics; harmonic oscillator; rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron spin, and Pauli principle; chemical bonding. P/NP or letter grading.

C113B. Physical Chemistry: Introduction to Molecular Spectroscopy. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Intersects with matter, microscopic spectroscopy, infrared and Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrency is required with course C213B. P/NP or letter grading.

114. Physical Chemistry Laboratory. (5). Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of C– or better. Enforced conquisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurement and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (5). Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 110A, and 113A, with grades of B or better. Enforced conquisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes topics in physical chemistry to be selected in consultation with instructor. P/NP or letter grading.

C115A-C115B. Quantum Chemistry. (4–4). 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 106A. Course C115A or Physics 115B with grade of C– or better is requisite to C115B. Students entering course C115A are normally expected to take course C115B in following term. Designed for students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; waves; oscillators; angular momentum; hydrogen molecules; 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 Polyhedra. (5). (Same as Honors Collegium M180.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications throughout (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to explore the underlying 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 151A or 153A of 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 model visual systems for studying phases that chemistry under- graduate students typically learn about for nanoscale and molecular systems, yet they do not see. Temperature continuously excites molecules and causes rearrangements, giving dynamic views of macromolecules and particles in many fields, including cell and molecular oncology, physical, chemical, materials science, and physics. Letter grading.

M120. Soft Matter Laboratory. (4). (Same as Physics M180G.) Laboratory, four hours. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4). Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed junior-year courses in physical chemistry. P/NP or letter grading.


C126A. Computational Methods for Chemists. (4). Lecture, four hours; laboratory, four hours. Preparation: programming experience in either Basic, FORTRAN, C, ++Java, or Pascal. Requisites: courses 110A, 113A, Mathematics 33B. Theoretical, numerical, and programming tools for constructing new chemical applications, including simple force fields and resulting statistical mechanics for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4). (Same as Chemical Engineering CM127.) Lecture, four hours; discussion, one hour. Requisite: course 153A, Life Sciences 3, 23L. 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 biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of systems modeling for metabolic networks to design and optimize metabolic configurations. Concurrently scheduled with course CM227. Letter grading.

136. Organic Structural Methods. (5). Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Laboratories in course focus on structure determination by chemical and spectroscopic methods: microtechniques, P/NP or letter grading.

C140. Biomolecular Technology. (4). Lecture, three hours. Requisite: course 153A and 30C, with grades of C– or better. Laboratory course in organic structure determination by chemical and biological principles in biomolecular technology: materials and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules; characterization of synthetic chemistry, techniques, and biomimetic materials and applications at nanoscale. Concurrently scheduled with course C240. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (5). Lecture, two hours; discussion, one hour. Requisite: 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; isotope effects. Molecular orbital theory; photochem- istry; pericyclic reactions. May be concurrently scheduled with course C243A. P/NP or letter grading.

C143B. Mechanism and Structure in Organic Chemistry. (4). Lecture, three hours; discussion: one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243B. P/NP or letter grading.

144. Practical and Theoretical Introductory Organic Synthesis. (5). Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30C and 30CL, with grades of C– or better. Lectures on modern synthetic reactions and processes, with emphasis on ste- reospecific methods for carbon-carbon bond forma- tion. Laboratory methods of synthetic organic chem- istry, including reaction techniques, synthesis of natural products, and molecules of theoretical in- terest. P/NP or letter grading.

C145. Theoretical and Computational Organic Chemistry. (4). Lecture, two hours; discussion: one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum me- chanical concepts and methods to understand and predict organic structures and reactivities. Computa- tional modeling methods, including laboratory experi- ence with force-field and quantum mechanical computer calculations. Concurrently scheduled with courses C245A-C245B.

147. Careers in Chemistry and Biochemistry. (2). Seminar, two hours. Limited to juniors/seniors. Explo- ration of employment and career opportunities avail- able to students. Different speakers will give short pre- sentations on careers in their respective area such as industry, government, research and development, education, law, and healthcare, explain how their educa- tion in chemistry and biochemistry helped them be- come successful, and what actual chemistry was used in their particular professions. Students learn and understand real-life applications of chemical con- cepts found in their coursework. P/NP grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4). Lecture, four hours; discussion, one hour. Requisite: course 14D or 30B, with grade of C– or better. Recommended: Life Science 1, 2, 3, 23L. Structure of proteins, carbohydrates, lipids, and nucleic acids; enzyme catalysis and principles of metabol- ism, including glycolysis, citric acid cycle, and oxy- dative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, 23L. Enzyme structure and function. Enzyme regulation and inhibition. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Syn- thesis. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Enforced requisites: course 153A or 153AH, Life Sciences 2, 3, 23L. Nucleotide metabolism; DNA replication; DNA repair; transcript-
tion machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Synthesis (Honors). (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Enforced requisites: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4). Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4). Lecture, three hours; discussion, two hours. Requisite: course 153A or 153AH. Honors course parallel to course 153B. P/NP or letter grading.

153D. Introduction to Protein Structural Biology. (4). Lecture, three hours; discussion, one hour. Enforced requisites: course 153A, Life Sciences 23L. Proteins are diverse set of macromolecules that perform critical biological functions, ranging from enzymes that catalyze metabolic reactions to proteins that enable pathogens to cause disease. Introduction to field of protein structural biology, that seeks to understand molecular basis of protein function through utilizing atomic structures and by investigating how alterations in protein structure affects function. Students gain fundamental understanding of protein structure and its relationship to function and its manipulation 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. Enforced requisites: courses 14BL and Life Sciences 23L, or 20L and 30AL, and 153A or 153AH (may be taken concurrently). Lecture, three hours; discussion, two hours. Requisite: course 153A. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

154. Biochemical Methods II. (5). Lecture, two hours; laboratory, five hours. Enforced requisites: 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 biochemical approaches to investigate contemporary problems in biochemistry. Topics include transcription activation, molecular basis of DNA-protein interactions, biochemical basis of platelet activation, and initiation of blood clotting cascade. Experiments entail characterizing function of proteins, nucleic acids, and lipids involved in these processes. P/NP or letter grading.

156. Physical Biochemistry. (4). Lecture, four hours; discussion, one hour. Requisites: courses 110A, 153A. Biochemical kinetics; solution thermodynamics of biochemical systems; multiple equilibria; hydrodynamic interactions; energy levels, spectroscopy, bonding; topics from structural, statistical, and electrochemical methods of biochemistry. P/NP or letter grading.

159A. Mechanisms in Regulation of Transcription I. (2 to 4). Lecture, four hours. Requisites: courses 153B, 154. Eukaryotic general transcribed apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways, stress, and embryogenesis. Concurrently scheduled with course C259B. P/NP or letter grading.

159B. Mechanisms in Regulation of Transcription II. (2). Second five weeks. Lecture, four hours. Requisites: courses 153B, 154. Eukaryotic general transcribed apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways, stress, and embryogenesis. Concurrently scheduled with course C259B. P/NP or letter grading.


171. Intermediate Inorganic Chemistry. (4). Lecture, three hours; discussion, one hour. Requisite: course 30B with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, electronic structure of metal ions, and catalysis. P/NP or letter grading.

172. Advanced Inorganic Chemistry. (4). Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, electronic structure of metal ions, and catalysis. P/NP or letter grading.

C174. Inorganic and Metalorganic Laboratory Methods. (5). Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 172, with grades of C– or better. Survey of inorganic and organometallic compounds, transition metals in catalysis and biology. P/NP or letter grading.


acterization methods, and special topics such as con- ductive and biomedical polymers and polymeric re- agents in synthesis. Concurrently scheduled with course C289. P/NP or letter grading.

184. Chemical Instrumentation. (Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and laboratory techniques of chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarograph- y, X-ray absorption spectroscopy, gas chromatography, and other modern methods. P/NP or letter grading.


192A–192B. Undergraduate Practicum in Chemis- try and Biochemistry. (4–4). Lecture, one hour; labora- tory, four hours; workshop, two hours. Enforced requisites: courses 30AL, 110A, 113A, 30CL. Hands-on experi- ence in the undergraduate chemistry major with approved course work on secondary school teaching. Intended for students who are planning careers in secondary science chem- istry teaching. Through the 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 safety, management, labora- tory organization, safety, and techniques. P/NP or letter grading.

192C–192D. Undergraduate Assistant Education Practicum in Chemistry and Biochemistry. (4–4). Seminar, one hour; assigned setting, six hours (course 192C) or five hours (course 192D). Limited to juniors/ seniors. Training and supervised practical for advanced undergraduate students to learn algorithms in chemistry and biochemistry lectures. Students assist in preparation of materials and development of innovative pro- grams under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any departmental major. Indi- vidual contract required. Information and contracts may be obtained from department. P/NP grading.

193A. Journal Club Seminars: Chemistry and Biochemistry. (2). Seminar, three hours. Limited to under- graduate students. Discussion of readings se- lected from current literature in particular field. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Chemistry and Bio- chemistry. (1). Seminar, three hours. Designed for graduate students who are part of research group. Advanced study and analysis of current topics in physical, organic, or inorganic chemistry or bio- chemistry. Discussion of current research and litera- ture in research specialty of faculty member teaching course. May be repeated for credit. P/NP grading.

196B. Research Apprenticehip in Chemistry and Biochemistry. (2 to 4). Tutorial, three hours per week per unit. Limited to juniors/seniors. Enrolled students may take up to one unit of this course to fulfill the four-unit requirement for upper division students under guidance of faculty mentor. Limited to 10 students per semester. Consent of faculty required for upper division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be repeated for credit. P/NP or letter grading.


Graduate Courses

C200. Genomics and Computational Biology. (5). Lecture, three hours; discussion, one hour. Enforced requisites: course 153B, Microbiology 132, Molecular, Cell, and Developmental Biology 144, or 165B. Intro- duction to biochemistry students of technologies and experimental data of genomics, as well as computa- tional tools for analyzing them. Biochemistry and mole- cular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what would happen in complete organism. Over 80 percent of drug candidates fail in clinical trials. High- throughput technologies such as sequencing, mi- croarrays, mass-spect, and robotics have given biolo- gists incredible new capabilities to analyze complete genomes, expression patterns, functions, and inter- actions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential research tool. Concepts, tools, and methods of chem- principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C100. S/U or letter grading.

201. Scientific Proposal Writing. (2). Lecture, three hours. Enrolled students of graduate biochemistry and mole- cular biology students. How to write scientific pro- posals to be submitted to funding agencies. How to develop curricula vitae, put together grant proposals, and critique proposals. Letter grading.

202. Bioinformatics Interdisciplinary Research Seminar. (4). (Same as Bioinformatics M202.) Seminar, two hours; discussion, one hour. Enrolled students. Discussion of examples and practice of organic and inorganic mass spectrometry. Topics include El, CI, IPMS, GC/MS, LC/MS, LC/MS, MALDI, MS/MS protein identification, and proteomics. Enrolled students are normally expected to take course C215B in follow-

C208. Mass Spectrometry for Chemists and Bio- chemists. (2). Lecture, one hour; laboratory, four hours. Enrolled students. Application of chemistry to mass spectrometry, inference of molecular weights, proteins, peptides, and ionization efficiency. Enrolled students are encouraged to take course C202M to develop skills in protein and peptide identification. Enrolled students are normally expected to take course C215B in follow-
Mechanics; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; NMR; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. S/U or letter grading.


215D. Molecular Spectra, Diffraction, and Structure. (4). Lecture, three hours; discussion, one hour. Requisite: course C215B, Physics 131. Selected topics from electronic spectra of atoms and molecules; vibrational, rotational, and Raman spectra; magnetic resonance spectra; X-ray, neutron, and electron diffraction; coherence effects. S/U or letter grading.

218. Physical Chemistry Student Seminar. (2). Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students on material pertinent to credit. S/U grading.

219A-219Z. Seminars: Research in Physical Chemistry. (2 each). Seminar, three hours. Advanced study and analysis of current topics in physical chemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

219E. Dynamics of Molecule-Molecule and Molecule-Surface Reactions. (4).

219F. Spectroscopy of Isolated Molecules, Complexes, and Clusters. (4).

219J. Chemistry and Biophysics of Interfaces. (4).


219S. Nanoscience. (4).


219V. Complex Fluids: Composition, Structure, and Rheology. (4).


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.

222. Mathematical Methods for Chemistry. (4). Lecture, four hours. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, and 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 C122. S/U or letter grading.

222A-222B. Classical and Statistical Thermodynamics. (4-4). Lecture, four hours; discussion, one hour. Requisite: course 110B or 115. Recommended: course 113A. Presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogens, chemical equilibria, reaction rates, imperfect gas, nonelectron theory and electrolyte solutions, surface phenomena, high polymers, and radiation. May be concurrently scheduled with courses C215B and C223B. S/U or letter grading.


2226A. Computational Methods for Chemists. (4). Lecture, four hours; laboratory, four hours. Preparation of programming experience in either BASIC, FORTRAN, C, C++, Java, or Pascal. Requisites: courses 110A, 113A, Mathematics 33B. Theoretical, numerical, and programming topics in constructing new chemical computer programs, including simple force fields and resulting statistical mechanics for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C125A. S/U or letter grading.

2227. Synthetic Biology for Biofuels. (4). (Same as Chemical Engineering CM227.) Lecture, four hours; discussion, one hour. Requisites: course 153A, Life Sciences 3, 23L. 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 biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of systems modeling for metabolic networks to design microbial 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, 90 minutes. Designed primarily for entry or graduate physical chemistry students. S/U grading.

230B. 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 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.

230D. Structural Molecular Biology Laboratory. (2). (Same as Molecular, Cell, and Developmental Biology M230D.) Laboratory, 10 hours. Corequisites: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.


235F. Synthetic Methods and Synthesis of Natural Products. (4).


235L. Fullerene Chemistry and Materials Science. (4).


235N. Target- and Diversity-Oriented Synthesis of Natural Products and Product-Like Molecules. (4).

235O. Polymer Chemistry and Biomaterials. (4).

235P. Reaction Discovery and Total Synthesis of Complex Molecules. (4).


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 spectroscopy, and mass spectrometry; new techniques in NMR, IR, and MS, with emphasis on Fourier Transform techniques. S/U or letter grading.

2340. Biocatalysis. (4). Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles of biocatalysis, materials and strategies for top-down and bottom-up fabrication of biologically derived molecules, characterization and detection techniques, and biomimetic materials and applications at nanoscale. Concurrently 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 encompasses one recognized specialty in organic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

243A. 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. Acidity and acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory and photochemistry; pericyclic reactions. May be concurrently scheduled with course C143A. S/U or letter grading.


244S. Theoretical and Computational Organic Chemistry. (4). Lecture, two hours; discussion, one hour; computer laboratory; one hour. Requisites: course 113A. Application of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with force-field and quantum mechanical computer calculations. Concurrently scheduled with course C145S. S/U or letter grading.

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247. Organic Colloquium. (2). Seminar, two hours. Seminars in organic chemistry and related areas presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

248. Organic Chemistry Student Seminar. (2). Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.


250. Advanced Topics in Biochemistry and Molecular Biology. (2). Lecture, two hours. Critical analysis of experimental design and methods in biochemistry and molecular biology. In-depth analysis of literature in one or more areas of current research. May be repeated for credit. S/U or letter grading.


259B. Mechanisms in Regulation of Transcription II. (2). Second five weeks. Lecture, four hours. Eukaryotic transcription: effect of chromatin structure; transcription factors as targets of signal transduction pathways; transcription factors in embryogenesis. Concurrently scheduled with course C159B. S/U or letter grading.

260A. Introduction to Bioinformatics. (4). Same as Bioinformatics M260A. Computer Science CM221, and at least one of Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical methods to answer biological questions. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM160A. S/U or letter grading.


256A-256Z. Seminars: Research in Biochemistry. (2 each). Seminar, three hours. Advanced study and analysis of current topics in biochemistry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

256A. Biochemistry of Plasma Proteins.

256B. Biochemistry of Protein Function.

256D. Transcriptional Control Mechanisms in Drosohila Embryogenesis.

256F. Current Topics in Prokaryotic Development.

256G. Nucleic Acid Structure Determination by NMR.

256H. Basic Mechanisms of Promoter Activation.

256J. Contractile Proteins in Muscle Contraction and Cell Motility.

256K. Biochemistry and Molecular Biology of Chlamydomonas.

256L. Literature of Structural Biology.

256M. Mechanism and Regulation of Transcription Termination in Eukaryotic Organisms.

256N. Advanced Topics in Structural Biology.

256O. Membrane Biophysics.

256P. Analysis of Protein Structure.

256Q. Biochemistry and Function of Ubiquitin in Yeast and Higher Eukaryotes.

256R. Biomolecular Nuclear Magnetic Resonance Spectroscopy and Protein Structure.

256S. Proteome Bioinformatics.

256T. RNA Processing and RNA Genomics.

256U. Mitochondrial Biogenesis and Link to Disease.

256V. Proteomics and Mass Spectrometry.

256W. Cytoskeletal Dynamics during Drosophila Oogenesis.

256X. Microtubule-Based Structures and Human Disease.

257. Physical Chemistry of Biological Macromolecules. (4). Lecture, one hour; discussion, one hour; laboratory, four hours. Requisite: course 153A. Theory of hydrodynamic, thermodynamic, and optical techniques used to study structure and function of biological macromolecules. S/U or letter grading.

258. Biochemistry and Molecular Biology of Protein Translation Systems. (3). Lecture, two hours; discussion, two hours. Requisites: courses 269A through 269D. Protein translocation into nucleus, mitochonrdia, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

259A. Metabolism and Its Regulation. (4). Same as Biological Chemistry M263. Lecture, three hours. Requisites: course 110A, and one course from 153B, 153C, or 156, or Biological Chemistry 210A and 210B. Thermodynamic and kinetic aspects of metabolism; regulatory properties of enzymes; metabolic regulation; consideration of comparative aspects of metabolism in relation to physiological function. S/U or letter grading.

264. 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 oxygens, its role in mitochondrial metabolism, neurodegenerative diseases, apoptosis, 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), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C165. S/U or letter grading.


267. Nanoscience and Chemistry. (4). Lecture, four hours. Enforced requisites: courses 110A, 113A, 171, 172. Designed for advanced undergraduate and graduate students. Why nanoscience is important and interesting and critical role of chemistry in nanoscience. Chemistry and physical properties of inorganic nanostructures, including metallic nanostructures (nanocrystals, nanorods, nanowires), semiconductor nanostructures (quantum dots/rods, nanowires, nanotubes, graphene). Discussion of synthetic approaches, structures, and physical properties, as well as potential technological opportunities of each. Letter grading.

268. Biochemistry Research Seminar. (2). Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students on topics of current biological research interest. May be repeated for credit. S/U or letter grading.


269B. Biocatalysis and Bioenergetics. (2). Lecture, five hours; discussion, two hours. Requisites: courses 153A, 153B, 153C, 156. Three-dimensional structure of DNA and RNA. Sequence-specific recog-
nition of DNA and RNA. RNA-catalyzed processes, including self-splicing and peptide bond formation. Letter grading.


270. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4). Lecture, two to three hours; discussion, zero to two hours. Requisites: courses 153A and 153B, or Life Sciences 3 and 23L, and course 153L. Recommended: courses 153C, 154, Life Sciences 4. Light harvesting, photosynthesis, electron transfer, carbon fixation, carbohy-

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 re-

272A-272Z. Seminars in Inorganic Chemistry. (2 each). Seminar, three hours. Advanced study and analysis of current topics in inorganic chemistry, including current research and literature in research specialty of faculty member teaching course. S/U grading.

272A. Chemistry of Materials.

272B. Metalorganic, Inorganic Biomolecular Chemistry.

272C. Inorganic Spectroscopy.

272D. Bioinorganic Chemistry and Biology of Transition Metals and Oxygen.

272G. Issues in Chemical Education.

272I. Organometallic Chemistry.

272K. Reticular Chemistry.


274A. Inorganic and Metalorganic Laboratory Methods. (5). Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 172, 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 C174. S/U or letter grading.

275. 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 and transition-metal coordination chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free/ radical, photoreactions, and photochemistry. Requisites: courses 133A 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 C175. S/U or letter grading.

276B. Physical Methods in Inorganic Chemistry. (4). Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational spectroscopy. May be concurrently scheduled with course C276A. S/U or letter grading.

277. Crystal Structure Analysis. (4). Lecture, three hours; discussion, one hour. Requisites: courses 175A, 175B, 175C. 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, out-

279. Biological Inorganic Chemistry. (4). Lecture, three hours. Requisites: courses 133A (or 133AH); 171. Role of metal ions in biology. Topics include interactions of metal ions with proteins, nucleic acids, and other biological molecules; mechanisms of actions of metal ions; transition-metal enzymes encoding those compo-


281. Polymer Chemistry. (4). Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical chemical descriptions of unique properties of polymers, polymer char-

282. Introduction to Inorganic Chemistry Research. (2). Lecture, two hours; discussion, one hour. May be repeated for credit. S/U grading.

283. Evolution of Devices from Concept to Product. (2). Seminar, 90 minutes. Discussion of cur-

284. Materials Creation Training Program Brown-Bag Seminar. (2). Seminar, one hour. Required of students in Materials Creation Training Program. Training in funda-


M370A. Integrated Science Instruction Methods. (4). (Same as Earth, Planetarian, and Space Sciences M370B and Physics M370A) Lecture, two hours; dis-

M370B. Integrated Science Instruction Methods. (4). (Same as Earth, Planetarian, and Space Sciences M370A and Physics M370B) Application of learning theory to science instruction and classroom management, including use of technology, collabora-

400. Safety in Chemical and Biochemical Research. (2). Lecture, two hours. Survey of safe labo-

495. Teaching College Chemistry. (2). Seminar, two hours; discussion, two hours; 20 hours training during week prior to Fall Quarter. Course for teaching assis-

598. Research for and Preparation of M.S. Thesis. (2 to 16). Tutorial, to be arranged. Each faculty member supervises research of M.S. students and holds research group meetings, seminars, and discussions with students. May be repeated for credit. S/U or letter grading.

599. Research for and Preparation of Ph.D. Disser-

CÉSAR E. CHÁVEZ
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The mission of the UCLA César E. Chávez Department of Chicana and Chicano Studies is to train a new generation of scholars to research and analyze the history, culture, and life of Mexican-origin people both within and outside the U.S., as well as of other Latina/Latino and indigenous populations in the Americas.

Addressing local, national, and transnational contexts, the Chicana/Chicano 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 (1) border and transnational studies, (2) expressive arts, (3) history, literature, and language of Americas, and (4) 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.

Undergraduate Study

The Chicana and Chicano Studies Department offers a designated capstone program for undergraduate majors. 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 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.

Chicana and Chicano Studies B.A.

Capstone Program

The B.A. program in Chicana and Chicano Studies is comprised of the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, languages, 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.

Preparation for the Major

Required: Chicana and Chicano Studies 10A, 10B, Spanish 5 or equivalent.

Transfer Students

Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicana social structure and contemporary conditions course, and five quarter terms of Spanish.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: A total of 11 upper division courses, including Chicana and Chicano Studies 101; one service learning course from 100SL or M170SL or from the approved list available in the department office each term; two related study courses from the approved list of courses outside the department (related study includes courses that provide a comparative perspective to Chicana and Chicano studies and/or a contextualization of Chicana and Chicano communities in the world); one advanced seminar course from 191 or another course by petition to the department chair; and a concentration of four courses in one area listed below and two courses in a second area:

Border and Transnational Studies: Chicana and Chicano Studies CM110, 120, M124, M125, M126, C123, 143, M144, CM147, 151, 152, 153, 154, 155, M156A, 163, 176, 184, 191


No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the courses must be approved in writing by the department chair.

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

Honors Program

The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-long research or creative project with the guidance and supervision of a faculty member. The program is open to all juniors and seniors who have (1) a 3.5 grade-point average in the major, (2) a cumulative GPA of 3.0 or better, and (3) completed 90 or more total units, including Chicana and Chicano Studies 10A, 10B, 101, and one course from 89, 89HC, 189, or 189HC.

The application for admission must be submitted in Spring Quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana and Chicano Studies 189A, 189B, and 189C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary senior thesis, and who are eligible for the honors program may opt to switch to the honors program (provided it does not delay their progress toward the degree) with the approval of the department.

Optional Multidisciplinary Senior Thesis

Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.
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.

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.

Required Lower Division Courses (10 units): Chicana and Chicano Studies 10A, 10B.

Required Upper Division Courses (20 units minimum): Chicana and Chicano Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term).

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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrgnintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The César E. Chávez Department of Chicana and Chicano Studies offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Chicana and Chicano Studies.

Chicana and Chicano Studies

Lower Division Courses

10A. Introduction to Chicana/Chicano Studies: History and Culture. (5) 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. (5) Lecture, three hours; discussion, one hour. Multidisciplinary examination of representation, ideologies, and material conditions of Chicana/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.

88. Sophomore Seminars: Chicana and Chicano Studies. (2) Seminar, two hours. Limited to 24 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.

97. Variable Topics in Chicana and Chicano Studies. (2, 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) Seminar, two hours. Limited to 20 students. Introduction to issues of professional (nonacademic) settings and decision-making processes through readings and other assignments. P/NP or letter grading.

Upper Division Courses

100SL. Barrio Service Learning. (4) Seminar, two hours; field placement, eight hours. Limited to juniors/seniors. Service learning placement in community-based organization, labor union, or service-oriented nonprofit organization. Study of role that these organizations play in immersion and change of Chicana/Chicano communities. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member to culminate with grading.


M102. Mexican Americans and Schools. (4) Same as Education M102.) Seminar, four hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S., with special emphasis on disenfranchising tactics of race, gender, class, and immigrant status on Chicana/chicano educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicano educational experience. P/NP or letter grading.


M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) Same as Theater 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.


104. Comedy and Culture: Your Humorous Life. (4) Lecture, four hours; discussion, one hour. In mining our humorous life adventures from students' cultural identities and turning those unique experiences into humorous literature. Students acquire skills to read their stories out loud, with emphasis on comedy in their pieces through art of storytelling and performance. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature, 1400 to 1920. (5) Same as English M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature from poetry of Triple Alliance and Aztec Empire through end of Mexican Revolution (1910) and written forms (poetry, corridos, testimonios, folklore, novels, short stories, and drama) by writers such as Nezahualcoyotl (Hungry Coyote), Cabaza de Vaca, Lorenzo de Zavala, María Amparo Ruiz de Burton, Eusebio Chacón, Daniel Venegas, and Lorena Villegas de Magón. P/NP or letter grading.

M105B. Chicana/Chicano Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (5) (Not same as course M105B prior to Fall Quarter 2011.) Same as English M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Chicana/Chicano literature from 1920s through Great Depression and World War II, ending with Chicana civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Jovita González, Cleofas Jiménez, Daniel Valdez, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105C. Chicana/Chicano Literature since el Movimiento, 1970s to Present. (5) (Formerly numbered M105B.) Same as English M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South American migration have shaped 21st-century chicandian. Oral, written, and graphic fiction, poetry, and drama by writers including John Rechy, Gloria Anzaldúa, 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) (Same as English M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of U.S. Latina/Latino literature and introduction to its major thematic trends, 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 sphere, 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.

M105E. Studies in Chicana/Chicana or Latina/Latina Literature. (5) Same as English M105E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics course to give students broad introduction to issues and themes in Chicana/Chicana and/or Latina/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.

105F. Gender, Fiction, and Social Change. (4) (Formerly numbered M105C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of essays, novels, short narratives, and plays written by Chicanas/Latinas. Required readings represent writers with focus on themes of identity, ethnicity, gender, and cross-overs leading to social change. Critical reading and analysis of works, searching for strengths and flaws, to point out unique contribution of each work to greater body of U.S. literature. P/NP or letter grading.

M105SL. Seminar: Chicana and/or Latina/Latino Literature—Service Learning. (5) Same as English M105SL.) Seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3 or 3H. Taught in Chicana/Chicano studies in Chicana/Chicano and/or Latina/Latina literature. En-depth study of various topics related to Chicano/ Latina communities in Southern California, including Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency. P/NP or letter grading.

CM106. Health in Chicano/Latino Population. (4) (Formerly numbered M106.) Same as Public Health M106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/ Latina health status through life expectancy, causes of death, reportable disease, services utilization, pro-


M108A. Music of Latin America: Mexico, Central America, and Caribbean Isles. (5). (Same as Ethnicmusicology M108A) Lecture, four hours; discussion, one hour. Survey of traditional and contemporary musical culture. P/NP or letter grading.


CM110. Chicana Feminism. (4). (Formerly numbered M110) (Same as Gender Studies M132) Lecture, four hours. Enforced requisite: course 10A or Gender Studies 10. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World Chicana feminist writing. Concurrently scheduled with course CM214. P/NP or letter grading.

111. Chicana/Chicano and Latina/Latino Intellec- tual Traditions. (5). 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). Lecture, four hours. Introduction to history and evolution of tradi- tional celebration of Day of Dead ritual. Contempla- tion of indigenous, Spanish, Mexican, Chicano, and other influences and manifestations of this ritual. Special attention to indigenous language and worldview re- lated to this ancient ritual, such as ancient calendar systems. Designed to motivate critical thinking about what is observed in altars today and impact globaliza- tion has on tradition. P/NP or letter grading.

117. Chicana/Chicano Images in Mexican Film and Literature. (4). Lecture, four hours. Preparation includes adequate understanding of Spanish-language films without English subtitles. Throughout its rich history, spanning more than 100 years, Mexican cinema has produced various genres and films that deal with Chicanas/Chicanos. Examination of the roles of race, class, and gender together play important roles in shaping these experiences. Discussion of roles of structure and space for agency in each context. RQ required; concurrent with course C212. P/NP or letter grading.

M118. Student-Initiated Retreat and Outreach Issues in Higher Education. (4). (Same as African American Studies M118, American Indian Studies M118, and Asian American Studies M118) Lecture, four hours. Exploration of issues in outreach and re- tention of students in higher education, especially through student-initiated initiatives and service-learning and volunteer experiences, with focus on UCLA as case. May be re- peated twice for credit. Letter grading.


120. Immigration and Chicano Community. (4). Lecture, three hours. Discussion on relationship be- tween international immigration and development of Chicano/Latino community. Examination of U.S. im- migration policy and relationship between Mexican-origin population and other Latin American immi- grants. P/NP or letter grading.

M121. Issues in Latina/Latino Poverty. (4). (Same as Labor and Workplace Studies M121 and Urban Planning M140) Lecture, four hours. Examination of nature and extent of urban and rural poverty con- fronting Latina/Latino population in U.S. Special em- phasis on anti-poverty policies of government and nonprofit organizations and social planning and eco- nomic development strategies. Attention also to liter- ature on underclass. Letter grading.


123. Applied Research Methods in Latino Commu- nities. (4). Lecture, three hours. Through combination of lectures, key readings, and several experiments, in- troduction to several applied research methods that are highly effective in producing sound and method- ologically rigorous studies on poor and/or Latino communities, including important data that can be used for critical analysis and policy recommenda- tions. Letter grading.

M124. Latino Immigration History and Politics. (4). (Same as Honors Columbian M143.) Lecture, four hours. Overview of immigration in 20th century, ex- amining social, political, and economic contexts out of which different forms of Chicana/Chicanas im- migration to U.S. has occurred. Letter grading.

M125. U.S./Mexico Relations. (4). (Same as Labor and Workplace Studies M125.) Lecture, four hours. Examination of the complex dynamic relationship be- tween Mexico and U.S., focusing political economy ap- proach to study of asymmetrical integration between advanced industrial economies and developing coun- tries. P/NP or letter grading.


M127. Farmerworker Movements, Social Justice, and United Farm Workers Legacy. (4). (Same as Labor and Workplace Studies M127,) Lecture, four hours. Designed for juniors/seniors. Introduction to history and organization of labor movement in U.S. and North America. Discussion of race, class, and gender issues raised within movement, and various strategies for social change and economic equity purs- sued through organized labor and other means. Letter grading.

129. Field Research Methods in Labor and Work- place Studies. (5). Lecture, four hours; field studies, two hours. Designed for juniors/seniors. Discussion of roles of union and nonunion worker organizations in society and in improvement of quality of life for Latina/ Latino communities. Request and application of field research methods to labor organizations and work- place sites, especially participant observation, inter- view techniques, and grounded theory and other methods of data analysis. Letter grading.


131. Barrio Popular Culture. (4). Lecture, three hours. Construction of model by which to organize study of Chicana/Chicana popular culture by focusing on barrio metaphor for community organization of beliefs, myths, and values of Chicanas/Chicanos and their representations in icons, heroes, legends, stereotypes, and popular art forms through literature, film, video, music, mass media, and oral history. Letter grading.

C132. Border Consciousness. (4). (Formerly numbered 132.) Lecture, three hours. Investigation through history, popular culture, and mass media of bilingual and bicultural identities produced by geo- graphical and cultural space between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance currently scheduled with course C231. Letter grading.


C136. Chicana Latina Feminism. (4). (Same as Gender Studies CM136) Lecture, four hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socio- economic, cultural, and aesthetic practice. Examina- tion of representation of Mexican American and Chicanas in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican American produced between 1908 and 1980. Examination of recent Chicano-produced films by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World Chicana feminist writing. Concurrently scheduled with course CM214. P/NP or letter grading.

M141. Chicano/Latino and Latina/Latino Intellec- tual Traditions. (5). 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.

143. Chicana/Latina and Latina/Latino Intellec- tual Traditions. (5). 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.

C144. Chicana Latina Feminism. (4). (Same as Ethnicmusicology CM144) Lecture, four hours; discussion, one hour. Examination of Chicano cinema as political, socio- economic, cultural, and aesthetic practice. Examina- tion of representation of Mexican American and Chicanas in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican American produced between 1908 and 1980. Examination of recent Chicano-produced films by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World Chicana feminist writing. Concurrently scheduled with course CM214. P/NP or letter grading.

M145. Chicana Latina Feminism. (4). (Same as Ethnicmusicology M145) Lecture, four hours; discussion, one hour. Examination of Chicano cinema as political, socio- economic, cultural, and aesthetic practice. Examina- tion of representation of Mexican American and Chicanas in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican American produced between 1908 and 1980. Examination of recent Chicano-produced films by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World Chicana feminist writing. Concurrently scheduled with course CM214. P/NP or letter grading.
mandatory; need not be bilingual to enroll. Technical proficiency required; enrollment in Spanish 101 and 102 recommended. Historical, political, and social context of the Chicanas/Chicanos movement to be discussed. Opportunities for involvement in community and political activism. Letter grading.

M153. Central Americans in U.S. (4). Lecture, four hours. Interdisciplinary survey of social, historical, political, economic, educational, and cultural experiences of Central American immigrants in the U.S. Historical context to contemporary issues will be discussed. Letter grading.


M155. Latinos in U.S. (4). (Same as Sociology M155.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with 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.

M156A. Immigrant Rights, Labor, and Higher Education. (4.) (Same as Asian American Studies M166A and Labor and Workplace Studies M166A.) Seminar, three hours. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislation and policy issues surrounding them. 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 a strategy on immigrant students in higher education. P/NP or letter grading.

M156B. Research on Immigration Rights, Labor, and Higher Education. (4.) (Same as Asian American Studies M166B and Labor and Workplace Studies M166B.) Seminar, two hours. Requisite: course M156A. Expansion of research conducted by students in course M156A involving oral histories, research on immigration and immigrant rights, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

157. Chico Mexican Movement and Its Political Legacies. (Same as Gender Studies M166B.) Lecture, four hours. Examination of the Chico Mexican Movement of 1960s and 1970s and analysis of its political legacies. Grounded in historiographic inquiry and social movement theory, investigation of mobilization of diverse sectors of el movimiento, including immigrants, workers, artists, youth, community activists, and women. Exploration of myriad issues and struggles that compelled Chicanas/Chicanos to resist, such as land occupation, anti-war movements, community autonomy, police brutality, political inclusion, cultural recovery, racism, sexism, and class exploitation. Investigation of diverse ideologies and strategies of the Chicoan Movement through analysis of Chicanas/Chicanos' motivations for organizing, modes, strategies, innovations, challenges, and articulation of new political subjectivities. P/NP or letter grading.
165. Language in Education. (4). Lecture, three hours. Examination of language issues pertinent to educational systems, including language inequity, literacy, testing, and assessment, as well as institutional ideologies. Letter grading.

166. Paolo Freire for Chicana/Chicana Classroom. (4). Seminar, four hours. Introduction to pedagogy of Paulo Freire and examination of historical and contemporary problems circumscribing Chicana/Chicana education. Central focus to offer Freirean alternative to answer theoretical, methodological, practical, and policy questions about schooling in Chicanas/Chicanos in U.S. P/NP or letter grading.

167SL. Taking It to Street: Spanish in Community. (5). (Same as Applied Linguistics M165SL and Spanish M165SL). Seminar; three hours; fieldwork, 10 hours. Enforced requisite: Spanish 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

168A. Latinos: Print Media. (4). Lecture, four hours. Examination of systemic (mis)representations of Latinos in print media (print and mass media times) by means of critical discourse analysis and metaphor theory. Investigation of empirical basis for theories of racism in language in this context. Student projects range from immigration to education and crime to culture. Letter grading.


169. Representations of Indigenous Peoples in Americas. (4). Lecture, four hours. Strongly recommended requisite: course 101. Introduction to different forms of representation of indigenous peoples and their presence in Americas, with emphasis on Mesoamerica and Andes. How indigenous images are expressed, perceived, and constructed at point of contact with Europeans during development of indigenous and in current period. Discussion of how these relate to Chicana/Chicano identity construction. Letter grading.

170SL. Latinos, Linguistics, and Literacy. (5). (Same as Applied Linguistics M170SL, Honors College M170SL, and Spanish M170SL). Seminar; four hours; field project, four to six hours. Recommended requisites: English 140A-B, and one additional course in Chicana/o/Latina/o studies. Two major threads of that experience. Topics include technology, located within the context of its present. Chapter 6: Use of survey and social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of Chicana/o/Latina/o studies to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application of critical thinking, review of literature from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

175. Chicana Art and Artists. (4). (Same as Art M176 and World Arts and Cultures M176). Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

176. Globalization and Transnationalism: Local Historical Dynamics and Praxis. (4). Lecture, four hours. Analysis of dynamics of Chicana/Chicano transnational community formation in comparative global perspective, exploring changing roles of and key actor in local dynamics of transnationalization in California’s relation to world. Analysis of Chicana/Chicana experience in California as both highly linked node and local microcosm of dynamics of globalization that is both affected by as well as influences course of alternative scenarios of globalization. Designed to help students develop critical political economy analysis of interplay between globalization and local transnational dynamics that together are giving meaning to and constructing new social identities and strategies for struggle throughout world. P/NP or letter grading.

177. Latino Social Policy. (4). Lecture, three hours. Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Letter grading.

178. Latinos/Latinas and Law: Comparative and Historical Perspectives. (4). Lecture, four hours. Survey of experiences of Latinos/Latinas with U.S. legal system. Examination of landmark appellate decisions, litigation efforts, voting rights, language, public accommodations, education,

179. LA Art. Policies in U.S.: Comparative History. (4). (Formerly numbered 179.) (Same as Applied Linguistics M179.) Lecture, four hours. Survey of language policies and language in context to understanding social, legal, and political constraints on bilingualism. Review of federal, state, and institutional language policies and politics, with focus on schooling, administration of government, justice, and workplace. P/NP or letter grading.


182. Understanding Whiteness in American History and Culture. (4). (Formerly numbered M182.) (Same as History M151C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of whiteness in U.S. society. Seminar discussions trace evolution of white identity and explore its significance to historical construction of race class, and gender. Limited to students concurrently scheduled with course C256. Letter grading.

183. History of Los Angeles. (4). (Same as History M155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles’ place among American urban centers. P/NP or letter grading.


185. Whose Monument Where: Course on Public Art. (4). (Same as Art M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural politics in light of Chicana and Chicano view of American values and perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is private, who benefits at the expense of others, who defines neighborhoods, and how different ethnic populations use public space differently. P/NP or letter grading.

186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4). (Same as Art 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. Continuation of project through stages of production to full scale and community approval. P/NP or letter grading.

186B. Beyond Mexican Mural: Advanced Muralism and Community Development. (4). (Same as Art M186B and World Arts and Cultures M125B.) Studio/lecture, four hours. Requisites: courses M186A, M186AL Corequisite: course M186CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.


188. Special Courses in Chicana and Chicano Studies. (4), Seminar, three hours. Some sections may require prior coursework. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP grading.

190. Research Colloquium in Chicana and Chicano Studies. (2). Seminar, two hours. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty mentor. Students may present research methods, attend biweekly meetings with graduate student and 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 for credit. P/NP grading.

191. Variable Topics Research Seminars: Chicana and Chicano Studies. (4), Seminar, three hours. Limited to juniors/seniors. Research seminar organized around readings and engaged discussion of critical topics of interest in field. Exploration of issues, theoretical implications for field, and practical implications for communities students are researching. May be repeated for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Chicana and Chicano Studies. (4), Formerly numbered 192.) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innovative programs or courses of study under guidance of faculty members in small seminars. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1-4) Tutorial, four hours. Limited to undergraduate Colloquia Series students. Reading of journal articles associated with speaker topics to enliven postcolloquium discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Chicana and Chicano Studies. (2). Seminar, one hour. Designed for undergraduate students who are part of research group. Discussion of current literature in field or of research group project. May be repeated for credit. P/NP grading.

195. Community Internships in Chicana and Chicano Studies. (4), 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.

196. Research Apprenticeship in Chicana and Chicano Studies. (2 to 4). Tutorial, three hours per week per unit. Requisite: course 10A or 10B. Limited to juniors/seniors. Entry-level research apprenticeship for undergraduate students under 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 grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4). Tutorial, four hours. Examinations. Courses 10A, 10B. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty mentor and student. Assignment of reading and tangible evidence of mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

197C. Individual Capstone Studies. (2), Tutorial, one hour. Requisites: courses 10A and 10B, or 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.

families in U.S. society and how these intersections also help shape individual experiences within families. Examination of family, race, class, and gender as sociocultural productions and experiences of diverse Latina/Latino groups in U.S., with special emphasis on immigrants, and analysis of how race, class, and gender together play important roles in shaping these experiences. Discussion of roles of structure and space for agency in each context. Concurrently scheduled with course C107. Letter grading.


CM214. Chicana Feminism. (4). (Same as Gender Studies CM232A.) Lecture, four hours. Enrolled required to complete course work in English or Spanish. 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 attest to gender and Chicana identity among Latinas and Latinas within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM110. S/U or letter grading.


232. Aesthetics of Place in Chicana/Chicano Expressive Culture. (4). Seminar, three hours. Examination of several place-based aesthetic traditions, including indigenous, Santería, diaporic, and Aztlán aesthetics, in Chicana/Chicano visual art, film, performance, and literature. Special focus on place as site of identity, history, memory, and creative production. S/U or letter grading.

233. Community Cultural Development in Public Art: From Neighborhood to Global. (4). Seminar, three hours; laboratory, one hour. Designed for graduate students. Applications of research of local and global communities through aesthetic practices in visual arts, spoken word, visual performance, music, and dance that include participatory audience inclusion and foster civic dialogue and community advocacy and activism. Issues of cultural democracy based in cultural retention and affirmation. Case studies of artist projects in community cultural development provide contemporary examples of evolving field of work and basis for critical analysis. S/U or letter grading.


252. Cultural Representations in Americas. (4). Seminar, three hours. Analysis of Latina/Latino and Latin American fictional and nonfictional narratives and films, with emphasis on gender issues, diaspora, and global transformation. Use of aesthetic and formal analytical perspectives and several conceptual frameworks—cultural studies, postcolonial studies, postcolonial studies, neoliberalism, intersectionality, and feminisms. Focus of study of these cultural productions as expression of intersectionalities and differences among Latina/Latino and Latin American cultural workers, as well as among diverse populations and changing experiences their works refer to. S/U or letter grading.

253. Tenth Muscas of Chicana Theory. (4). Seminar, three hours. Chicana lesbian feminist theory in its multiple and historical manifestations, beginning in 17th century with early proto-feminist work of Sor Juana Inés de la Cruz, Mexican nun/scholar/poet known world over as first feminist of Americas. Exploration of Sor Juana’s feminist legacy in 20th-century Chicana lesbian and Chicana feminist theorists and scholars, such as Gloria Anzaldúa, Cherríe Moraga, Emma Pérez, Chela Sandoval, Norma Alarcón, and AliciaARRAY. Discuss in foundational theoretical concepts such as Anzaldúa’s foundational concepts of mistería, norteño, nepantla, mestiza, mujer, mujer, mujer, and conocimiento; Pérez’s sitio y lengua and decollo- real and decolonized imaginary; Sandoval’s methodology of oppressed, differential consciousness, and hermeneutics of love; and Ariztía’s postcolonial queer mes- tizaje. How to apply several of these theories in de colonization of one revered cultural icon, la Virgen de Guadalupe. S/U or letter grading.


255. Mass Media Research Methods. (4). Seminar, three hours. Limited to students with standing major in Chicana and Chicano Studies. Survey of range of qualitative and quantitative communication methods and findings regarding Chicana/Chicano and Latina/Latino topics for all media types in both English and Spanish, with emphasis on research findings across this expansive field and design of complex research problems. S/U or letter grading.

257. Bilingual Writing Workshop. (4). Seminar, four hours. Limited to graduate students. Writing sample required. Course webpage mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both politics and aesthetics to be central theme. Discussion and analysis of Chicana/Chicano and Latina/Latino short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, setting, point of view, and dialogue, and magical realism as prevailing Chicanesque/Latinesque style. Some attention to process of manuscript preparation, public reading, and publication. Concurrently scheduled with course CM135. Letter grading.

258. Laughter, Political Humor, and Social Control. (4). Seminar, three hours. Limited to graduate students. Investigation of power of political humor, one social justice tool, and its influence on discrimination and stereotyping in interpersonal 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, 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.


279. Globalization and Transnationalism. (4). Seminar. Three hours. Interdisciplinary seminar that integrates political-economic, historical-sociological, and anthropological perspectives to help students develop critical political-economic analysis of interplay between globalization (of flows of people, material goods, 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.

280. Urban Social Inequality. (4). Seminar, three hours. Examination of several key social and urban inequalities in U.S. Survey of several 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). Seminar. Three hours. Through empirical research cycle and informed with relevant theoretical frameworks, students develop research questions based on migration and integration experiences of Central American immigrants in greater Los Angeles area. Students conduct qualitative research, analyze original data, and write final papers that contextualize needs findings within existing social scientific literature. S/U or letter grading.

282. Chicana/Chicano Legal History. (4). Seminar, three hours. Legal history of Chicana/Chicanos in U.S. and Mexico. 15th to 19th century to present, with emphasis on critical race theory. Examination of landmark legislation and key appellate decisions that have impacted Chicano/Latino community. Topics include critical race theory, Treaty of Guadalupe-Hidalgo, legal construction of Mexican American racial identity, historic educational segregation, contemporary educational issues, jury rights, Chicano movement, and undocumented immigration. S/U or letter grading.

291. Variable Topics Research Seminars: Chicana and Chicano Studies. (4). Seminar, three hours. Limited to graduate students. Research seminar organized around readings and engaged discussion of critical topic of interest in field. Exploration of issue, its theoretical implication for field, and practical implications for communities. Topics vary according to participating faculty members. Final research project required. May be repeated for credit with consent of director of graduate studies. S/U or letter grading.

375. Teaching Practice 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. Learner-Centered Teaching in Chicana/Chicana Studies. (4). Seminar, four hours. Designed for graduate students and required of all new department teaching apprentices. Interactive forum for discussing learner-centered teaching in Chicana/Chicana studies. Exploration of diverse classroom strategies and pedagogical techniques open to interdisciplinary field. Topics include preparing for discussion sections, promoting discussion among students, using class websites, office hours, grading, and campus resources. May be repeated once for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 12). Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicana 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.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12). Tutorial, to be arranged. Limited to departmental graduate students. Reading and preparation for M.A. comprehensive examination or Ph.D. qualifying exams, mandates and supplemental reading lists prepared by student advisory committees. May be repeated for maximum of 12 units. S/U grading.

598. Research for M.A. Thesis. (4 to 12). Tutorial, to be arranged. Limited to departmental graduate students who have completed all M.A. coursework requirements. Research for and preparation of M.A. thesis under direction of thesis committee chair. May be applied toward M.A. degree requirements. May be repeated for maximum of 12 units. S/U grading.


CIVIC ENGAGEMENT

Interdisciplinary Minor

College of Letters and Science

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Michael C. Lens, Ph.D., Chair

Faculty Committee

Joel D. Aberbach, Ph.D. (Political Science, Public Policy)
Michelle F. Erai, Ph.D. (Gender Studies)
Jan de Leeuw, Ph.D. (Statistics)
Barbara Drucker, M.F.A. (Art)
Jennifer A. Jay, Ph.D. (Civil and Environmental Engineering)
Michael C. Lens, Ph.D. (Urban Planning)
Reynaldo F. Macias, Ph.D. (Applied Linguistics, Chicana and Chicano Studies, Education)
Meredith Phillips, Ph.D. (Public Policy, Sociology)
Robert Chao Romero, J.D., Ph.D. (Asian American Studies, Chicana and Chicano Studies)
Olga T. Yokoyama, Ph.D. (Applied Linguistics)
David K. Yoo, Ph.D. (Asian American Studies)

Scope and Objectives

The Civic Engagement minor is designed to provide students with a core analytical, experimental, and theoretical framework for understanding issues of community building, governance, and the use of civic resources. It examines the connections between individual success and societal structures, while exploring traditions of service and the history of civic movements. 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, an internship, and a capstone project involving research on a public policy issue. Three internship programs are available: local Los Angeles area internships, state internships through the University of California Center in Sacramento (UCCS) program, and national internships through the Center for American Politics and Public Policy (CAPPP) program in Washington, DC.

Undergraduate Study

Civic Engagement Minor

The Civic Engagement minor integrates local, state, and national internships with an academic context that enriches the valuable learning gained through meaningful work.

To enter the minor, students must (1) have an overall grade-point average of 2.7 or better, (2) submit a completed application endorsed by a faculty sponsor, and (3) submit a written statement describing how civic engagement relates to their academic interests or career goals. Applications are available in A265 Murphy Hall.

Students who complete the minor with a grade-point average of at least 3.5 in their minor coursework, an overall GPA of 3.5, and Civic Engagement 198 for their capstone experience qualify for graduation with College Honors.

Required Core Courses (12 to 15 units): Civic Engagement M115 with a grade of B or better; one service learning course from American Indian Studies C122SL, Arts and Architecture M192SL, Asian American Studies C180SL, Chicana and Chicano Studies C180SL, Civic Engagement 100SL, 105SL, 133SL, 163SL, Edu-
Local Los Angeles area internships span three consecutive terms at the same internship location. Students enroll in three of the upper division courses to satisfy the internship requirement. Applications for the UCCS program are available at http://uccs.ucdavis.edu.

National internships span one term through participation in the Center for American Politics and Public Policy (CAPPP) program in Washington, DC. In the Fall or Spring Quarter program, students enroll in History/Political Science/Sociology M191DC and M195DC; in the Winter Quarter program, students enroll in History/Political Science/Sociology M194DC and M195DC plus one 4-unit elective course. Students must enroll in a minimum of 12 units of upper division courses to satisfy the internship requirement. Applications for the CAPPP program are available at http://www.cappp.ucla.edu.

Required Upper Division Capstone Courses (6 units): Civic Engagement 194 with a grade of B or better, and 198 or 199. Prior to enrolling in course 198 or 199, students must complete Civic Engagement 194 and all other requirements for the minor, with the exception of the three-term local internship which may be completed concurrently with the capstone course. 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 under the guidance of a faculty sponsor and enroll in either Civic Engagement 198 or 199 in the final term of the minor. 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. 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. Successful completion of the minor is indicated on the transcript and diploma.

Civic Engagement

Lower Division Courses

10. Introduction to Engaged Scholarship. (2), Seminar, two hours. Limited to students participating in preserved 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), Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity issues, organizational skills and team-building development, and personal growth development. Community service goals. Participation in first-week orientation session required. Consult Schedule of Classes for topics to be offered in specific term. May not be repeated for credit. P/NP grading.

95A-95B. Introduction to Community-Based Internships. (2-4), Tutorial, one hour; fieldwork, four hours (course 95A) and 10 hours (course 95B). Course 95A is prerequisite 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 as established by Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

95CE. Introduction to Community-Based Internships. (2), (Formerly numbered 95.), Tutorial, one hour; fieldwork, four hours. Introduction to community-based work for the study of advanced social conditions. The course includes a minimum of 90 fieldwork hours completed. Fieldwork is 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 as established by Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

100SL. Client-Based Program Evaluation and Research. (4). Seminar, three hours; fieldwork, 10 hours. Limited to juniors/seniors. Service learning course for undergraduate students who work with community partners through which students learn theory and practice of program evaluation. Evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

110SL. Community-Based Studies of Popular Literature. (5). (Same as English M110SL). Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enrollment by 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 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.

115SL. Citizenship and Public Service. (4). (Same as Political Science M115SC). Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 10. Designed for juniors/seniors. Study of ways in which political theory has been conceived of as a citizen and public service, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.


133SL. Community-Based Research: Theory and Practice. (5), Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course in research methods. Community-based research, in collaboration with community organizations, on theme of client rights: activism and advocacy. Offered in summer only, Letter grading.

150. Social Innovation Theory and Application. (4), Seminar, three hours. Limited to students in UCLA Summer Social Innovation Research Program. Study of social innovation as the role of civic engagement, with particular emphasis on how social innovators have transformed way we address entrenched social issues. Study of elements of existing social innovation models and strategies for employing them in social change on campus and in communities, Offered in summer only. Letter grading.

163SL. Civic Engagement and Public Use of Knowledge: Special Topics. (5), Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course that examines variable topics related to University/community partnerships and role of civic education in higher education. May be repeated for credit with topic or instructor change. Letter grading.

175SL. Addressing Social Determinants in Racial/ Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4), Seminar, two hours; fieldwork, 10 hours. Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and mental health disparities. Currently in racial and ethnic minority communities, health status of individuals can be function of built environment, exposure to pollutants and toxics, scarcity of supermarkets or stores with fresh produce and nutrient-dense foods, and variety of other stressors and unhealthy conditions. Health interventions are often focused on individual-level change or increases in access to health care with little in way of changing risk environments. Designed to identify and provide opportunities to understand how to address social determinants related to negative health outcomes in racial/ethnic minority
neighborhoods and communities and to experience how to use social determinants literature in service of collaborative activities with community organizations. P/NP or letter grading.

180. Access to Justice: Hope and Reality. (4). Seminar, three hours. Limited to UCLA students who are members of JusticeCorps program through AmeriCorps. JusticeCorps was established as innovative approach to solving one pressing issue faced by courts around country today: providing equal access to justice. Examination of promise of justice system in America to provide meaningful access to courts for all who seek it. What premises underlie structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, 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.

194. Capstone Research Seminar. (2). (Formerly numbered M194.) Seminar, two hours. Required capstone research project. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

194A. Astin Civic Engagement Research Seminar. (2). Seminar, two hours. Limited to students in Astin civic engagement spring training program. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for civic engagement research project. Letter grading.

195. Community or Corporate Internships in Civic Engagement. (4). Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors in Civic Engagement minor. Internship in supervised setting in corporate, governmental, or nonprofit setting, using knowledge base created in civic engagement. Students submit weekly writing assignments and final paper that examine civic issues related to meaningful work at internship site. Students expected to learn ways in which individuals and groups can organize to solve problems, analyze issues, or bring about change in democratic society. Must be repeated for three consecutive terms to fulfill minor requirements. Individual contract with supervising faculty member required. Letter grading.

195CE. Community and Corporate Internships in Civic Engagement. (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 and attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.


199. Directed Research or Senior Project in Civic Engagement. (4). Tutorial, one hour. Required capstone course to Civic Engagement minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. Letter grading.

CIVIL AND ENVIRONMENTAL ENGINEERING

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Scope and Objectives

The Department of Civil and Environmental Engineering programs at UCLA include civil engineering materials, earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structural engineering, and structural mechanics.

The civil engineering undergraduate curriculum leads to a B.S. in Civil Engineering, a broad-based education in environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structural engineering. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study. The department also offers the undergraduate Environmental Engineering minor.

At the graduate level, M.S. and Ph.D. degree programs are offered in the areas of civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structures (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 Study

The civil engineering program is accredited by the Engineering Accreditation Commission of ABET. See http://www.abet.org.

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.

Civil Engineering B.S.

Capstone Major

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; Physics 1A, 1B, 1C, 4AL; one natural science course selected from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.
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; at least nine units must be from one of the two selected tracks, and at least nine additional elective options.

Environmental Engineering: Required: Civil and Environmental Engineering 155 and one capstone design course from 157A or 157C; recommended courses: 154, 163, 164, M165, M166; laboratory courses: 156A, 156B.

Geotechnical Engineering: Required: One capstone design course (Civil and Environmental Engineering 121); recommended courses: C104, 123, 125, C182, Earth, Planetary, and Space Sciences 139; laboratory course: Civil and Environmental Engineering 128L.

Hydrology and Water Resources Engineering: Required: One capstone design course (Civil and Environmental Engineering 151); recommended courses: 152, 157A; laboratory course: 157L.

Structural Engineering and Mechanics: Required: Civil and Environmental Engineering 135B, one lecture course from 130, M155C, 137, 141, or 142, and one capstone design course from 141 or 143; recommended courses: C104, 121, 125, 130, 137, 141, 142, 143, 144, 147, C182; laboratory courses: 130L, 135L, 137L, 140L, 142L.

Additional Elective Options: Atmospheric and Oceanic Sciences 141, Civil and Environmental Engineering 180, 181, Earth, Planetary, and Space Sciences 100, 101, Environment 157, Mechanical and Aerospace Engineering 166C, M168; laboratory course: Civil and Environmental Engineering 129L.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Environmental Engineering Minor

The Environmental Engineering minor is designed for students who wish to augment their major program of study with courses addressing issues central to the application of environmental engineering to important environmental problems facing modern society in developed and developing countries. The minor provides students with a greater depth of experience and understanding of the role that environmental engineering can play in dealing with environmental issues.

To obtain the Environmental Engineering 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; at least nine major field elective courses (36 units) that must include one capstone design course from Civil and Environmental Engineering 123, 144, 147, 152, 157B, or 157C, as well as the required courses in two of the following tracks and at least two laboratory courses, one of which must be from each of the two selected tracks, and the other from any separate track or a laboratory course from the list of additional elective options:

Environmental Engineering: Required: Civil and Environmental Engineering 155 and one capstone design course from 157B or 157C; recommended courses: 154, 163, 164, M165, M166; laboratory courses: 156A, 156B.

Geotechnical Engineering: Required: One capstone design course (Civil and Environmental Engineering 121); recommended courses: C104, 123, 125, C182, Earth, Planetary, and Space Sciences 139; laboratory course: Civil and Environmental Engineering 128L.

Hydrology and Water Resources Engineering: Required: One capstone design course (Civil and Environmental Engineering 151); recommended courses: 152, 157A; laboratory course: 157L.

Structural Engineering and Mechanics: Required: Civil and Environmental Engineering 135B, one lecture course from 130, M155C, 137, 141, or 142, and one capstone design course from 141 or 143; recommended courses: C104, 121, 125, 130, 137, 141, 142, 143, 144, 147, C182; laboratory courses: 130L, 135L, 137L, 140L, 142L.

Additional Elective Options: Atmospheric and Oceanic Sciences 141, Civil and Environmental Engineering 180, 181, Earth, Planetary, and Space Sciences 100, 101, Environment 157, Mechanical and Aerospace Engineering 166C, M168; laboratory course: Civil and Environmental Engineering 129L.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Upper 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. Introduction to Computing for Civil Engineers. (2). Lecture, two hours; laboratory, two hours; outside study, two hours. Introduction to computer programming using MATLAB. Selected topics in programming, with emphasis on numerical techniques and methodology, as applied to civil engineering programs. Letter grading.


4. Climate Change, Water Quality, and Ecosystem Functioning. (5). Lecture, four hours; service learning, two hours; outside study, nine hours. Science related to climate change, water quality, and ecosystem health. Topics include carbon and nutrient cycling, hydrologic cycle, ecosystem structure and services, biodiversity, basic aquatic chemistry, and impacts of climate change on ecosystem functioning and water quality. Participation in service education projects to elementary or middle school audience. Letter grading.

5. Professional Practice Issues in Structural Engineering. (2). Seminar, two hours; outside study, four hours. Introduction to issues related to professional practice in structural engineering. Content and organization of model building codes and material-specific reference standards. Interpretation of structural and design drawings and specifications. Material-independent structural calculations such as tributary area, multistory column loads, and estimation of simple seismic and wind loads. P/NP grading.


Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Civil and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Civil Engineering.

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. Introduction to Computing for Civil Engineers. (2). Lecture, two hours; laboratory, two hours; outside study, two hours. Introduction to computer programming using MATLAB. Selected topics in programming, with emphasis on numerical techniques and methodology, as applied to civil engineering programs. Letter grading.


4. Climate Change, Water Quality, and Ecosystem Functioning. (5). Lecture, four hours; service learning, two hours; outside study, nine hours. Science related to climate change, water quality, and ecosystem health. Topics include carbon and nutrient cycling, hydrologic cycle, ecosystem structure and services, biodiversity, basic aquatic chemistry, and impacts of climate change on ecosystem functioning and water quality. Participation in service education projects to elementary or middle school audience. Letter grading.

5. Professional Practice Issues in Structural Engineering. (2). Seminar, two hours; outside study, four hours. Introduction to issues related to professional practice in structural engineering. Content and organization of model building codes and material-specific reference standards. Interpretation of structural and design drawings and specifications. Material-independent structural calculations such as tributary area, multistory column loads, and estimation of simple seismic and wind loads. P/NP grading.


Upper Division Courses


2. Applied Numerical Computing and Modeling in Civil and Environmental Engineering. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Requirements: course M20, Mathematics 33B (may be taken concurrently). Introduction to numerical computing with specific applications in civil and environmental engineering. Topics include error and computer arithmetic, root finding, curve fitting, numerical integration and differentiation, solution of systems of linear and nonlinear equations, numerical solution of ordinary and partial differential equations. Letter grading.


100. Introduction to Probability and Statistics for Engineers. (4). Lecture, four hours; discussion, one hour (when scheduled); outside study, seven hours. Requisites: Mathematics 32A, 33A. Recommended: course M20. Introduction to fundamental concepts and statistical methods commonly used in civil engineering, with focus on how these concepts are used in experimental design and sampling, data analysis, risk and reliability analysis, and project design under uncertainty. Includes basic probability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression, hypothesis testing, and Bayesian concepts. Letter grading.

120. Principles of Soil Mechanics. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Soil as foundation for structural and hydraulic systems; construction, classification, physical and mechanical properties, soil compaction, earth pressures, consolidation, and shear strength. Letter grading.

121. Geotechnical 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 of foundations and piles, including load-bearing and settlement calculations. Design of slopes and earth retaining structures. Letter grading.

123. Advanced Geotechnical Engineering. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 121. Analysis and design of earth dams, including seepage, piping, and slope stability analyses. Case history studies involving landslides, settlement, and expansive soil problems, and design of repair methodologies for those problems. Within context of above technical problems, emphasis on preparation of professional engineering documents such as proposals, work acknowledges, figures, plans, and reports. Letter grading.


128L. Soil Mechanics Laboratory. (4). Lecture, one hour; laboratory, eight hours; outside study, three hours. Requisite or corequisite: course 120. Laboratory experiments to be performed by students to obtain soil parameters required for assigned design problems. Soil classification, grain size, Atterberg limits, specific gravity, compaction, expansion index, consolidation, shear strength determination. Design problems, laboratory report writing. Letter grading.

129L. Engineering Geomatics. (4). (Formerly numbered 129L) Lecture, two hours;recitation, two hours; laboratory, four hours; outside study, four hours. Collection, processing, and analysis of geospatial data. Ellipsoid and geoid models of shape of Earth, Earth rotation, gravity, and earthquake ground motion. Data collection, analysis, and mapping. Quantitative terrain analysis and change detection. Hydrogeomatics: seafloor mapping. Letter grading.


135A. Elementary Structural Analysis. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M20, 103, 108. Introduction to structural analysis: classification of statically determinate and indeterminate structures, free body diagrams, 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 frames and trusses using matrix methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution method. Letter grading.

135C. Introduction to Finite Element Methods. (4). (Same as Mechanical and Aerospace Engineering M168.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156A or 166A. Introduction to basic concepts of 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; convergence properties; isoparametric formulation of multidimensional heat flow and elasticity; numerical integration. Practical application of finite element design concepts and analytical modeling; preprocessing and postprocessing techniques; term projects with computers. Letter grading.


140L. Structural Components and Systems Testing Laboratory. (4). Lecture, two hours; laboratory, six hours; outside study, two hours. Requisite: course 130. Introduction to the finite element method. 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, hydrometric power, irrigation systems, flood 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. Analysis and design of hydraulic and hydrologic systems, including stormwater management systems, 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. Recommended requisite: course 153. Fundamental physical, chemical, and biological principles governing movement and fate of chemicals in surface waters and groundwater. Topics include physical transport in various aquatic environments, air-water exchange, acid-base equilibria, oxidation-reduction chemistry, chemical sorption, biodegradation, and bioaccumulation. Practical quantitative problems solved considering both reaction and transport of chemicals in environment. Letter grading.


156A. Environmental Chemistry Laboratory. (4). Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced study, four hours. Requisites: course 153 (may be taken concurrently). Chemistry 20A, 20B. Basic laboratory techniques in analytical chemistry related to water and wastewater analysis. Selected experiments include gravimetric analysis, titrmetric spectrophotometry, gas chromatography, pH and electrical conductivity. Concepts to be applied to analysis of real water samples in course 156B. Letter grading.

156B. Environmental Engineering Unit Operations and Processes Laboratory. (4). Laboratory, six hours; discussion, two hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of typical natural waters and wastewaters for inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chloride residual, that are used in unit operation experiments that include reactor dynamics, gas stripping, coagulation/flocculation, and membrane separation. Letter grading.

157A. Hydrologic Modeling. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150 or 151. Introduction to hydrologic modeling, including derived from real systems, open-channel flow, including one-dimensional steady flow and unsteady flow, (2) pipe flow and water distribution systems, (3) rainfall-runoff modeling, and (4) groundwater flow and contaminant transport modeling, with focus on use of industry and/or research standard models with locally relevant applications. Letter grading.

157B. Design of Water Treatment Plants. (4). Lecture, two hours; discussion, two hours; laboratory, four hours; outside study, four hours. Requisites: course 150. Overview of design of water treatment plants, design of unit operations, predesign of water treatment plants, hydraulics of plants, process control, and cost estimation. Letter grading.

157C. Design of Wastewater Treatment Plants. (4). Lecture, four hours; outside study, eight hours. Requisite: course 155. Process design of wastewater treatment plants, including primary and secondary treatment, detailed design review of existing plants, process control, and economics. Letter grading.

157L. Hydrologic Analysis. (4). Lecture, two hours; laboratory, four hours; outside study, six hours. Requisite: course 150. Collection, compilation, and interpretation of data from precipitation and discharge event measurements. Use of hydrologic variables and parameters for development, construction, and application of analytical models for selected problems in hydrology and water resources. Letter grading.

157M. Hydrology of Mountain Watersheds. (4). Lecture, one hour; fieldwork, four hours; laboratory, three hours; outside study, six field trips. Requisite: course 150 or 157L. Advanced field- and laboratory-based course with focus on study of hydrologic and geomorphic processes in snow-domi- nated and montane ecosystems. Students measure and quantify snowpack properties, snowmelt, discharge, evaporation, infiltration, soil properties, and local hydrology, as well as investigate geomorphological processes. Ex- ploration of rating curves, stream classification, and flooding potential. Extended field trip required. Letter grading.


M165. Environmental Nanotechnology: Implications and Applications, (4). (Same as Engineering M103). Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: Engineering M101. Introduction to potential implications of nanotechnology to environmental systems as well as potential applications in both environmental protection. Technical contents include three multidisciplinary areas: (1) chemical, physical, and biological properties of nanomaterials, (2) transport, reactivity, and stability of nanoscale materials in natural environmental systems, and (3) use of nano- technology for energy and water production, plus en- vironmental protection, monitoring, and remediation. Letter grading.

M166. Environmental Microbiology. (4). (Same as Environmental Health Sciences M166L) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Micro- biological and metabolic capabilities, microbial ge- netics and its potentials, growth of microbes and ki- netics of growth, microbial ecology and diversity, mi- crobiology of wastewater treatment, probing of microbes, public health microbiology, pathogen con- trol. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1). (Same as Environmental Health Sciences M166LL) Laboratory, two hours; outside study, two hours. Corequisite: course M166. Introduction to laboratory practice within environmental mi- crobiology, sampling of environmental samples, class- and modern molecular techniques for enumeration of microbes from environmental samples, tech- niques for determining identity in environmental samples, laboratory setups for studying environmental biotechnology. Letter grading.

180. Introduction to Transportation Engineering. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/seniors. Applications of traffic flow theories; data collection and analyses; intersection capacity analysis; simulation models; signal design, signal timing design, implementation, and perfor- mance evaluation; Intelligent Transportation Systems concept, architecture, and integration. Letter grading.

C182. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses C104, 108, 120, Materials Science 104. Correlation, analysis, and metrical- tion of aspects of pavement design, including mate- rials selection and traffic loading and volume. Special attention to aspects of pavement distress/service/dis- ability and factoring of these into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving ap- plications. Unification and correlation of different vari- ables that influence pavement performance and high- light their relevance in pavement design. Concurrently scheduled with course C282L. Letter grading.

188. Special Courses in Civil and Environmental Engineering. (2 to 8). Lecture, four hours; fieldwork/laboratory, two hours; outside study, six hours. Designed for ju- niors/seniors. Applications of traffic flow theories; data collection and analyses; intersection capacity analysis; simulation models; signal design, signal timing design, implementation, and perfor- mance evaluation; Intelligent Transportation Systems concept, architecture, and integration. Letter grading.

192. Undergraduate Practicum in Civil and Environmental Engineering. (4). Laboratory, four hours; activity, four hours; outside study, four hours. Prepa- ration: completion of high school-focused California Teach course or engineering major with approved co- herent proposal, directed a secondary school teaching career. Development of pedagogical assign- ments. Students assist with relevant readings and discussions from pedagogical literature, experimenta- tion with existing and new teaching and learning equipment, mini-lectures and demonstrations to en- roled course students, and implementation of innova- tive curriculum during laboratory sessions. Students gain experience in leading courses, teaching engi- neering courses and obtain hands-on course devel- opment experience under guidance of faculty mem- bers. Letter grading.

194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8). Lecture, four hours; fieldwork/laboratory, two hours; outside study, four to 16 hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or field of research interests or students. May be repeated for credit. Letter grading.
Graduate Courses

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 composition and basic chemical reactions, microstructure, properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing. Development and testing of fundamentals for complete understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, explain, analyze, and describe engineering performance of civil engineering materials. Concurrently: course C104. Letter grading.


225. Geotechnical Engineering. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 220, 245 (may be taken concurrently). Analysis of earthquake-induced ground failure, including soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic slope stability. Ground response effects on earthquake ground motions. Soil-structure interaction, including inertial and kinematic interaction and foundation deformations under seismic loading. Letter grading.

226. Geoenvironmental Engineering. (4). Lecture, four hours; outside study, eight hours. Requisite: courses 120, 256A, 245; concurrent enrollment involves application of geotechnical principles to environmentally relevant problems. Topics include environmental regulations, waste characterization, geosynthetics, soil and water landfills, subsurface barrier walls, and disposal of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical Engi- neering. (4). Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of finite element method, and to constitutive modeling based on elasticity and plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonuni- formity, and nonuniqueness of solutions. Letter grading.

M230A. Linear Elasticity. (4). (Same as Mechanical and Aerospace Engineering M235A.) Lecture, four hours; outside study, eight hours. Requisite: Mechanical and Aerospace Engineering 156A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations for linear constitutive relations; plane elastostatic problems; holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerrutti. Introduction to boundary integral equation methods. Letter grading.

M230B. Nonlinear Elasticity. (4). (Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy and Piola derivatives of motion; balance of energy; stored energy; constitutive relations, elasticity, hyper- elasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


232. Theory of Plates and Shells. (4). Lecture, four hours; outside study, eight hours. Requisite: course 130. Small and large deformation theories of thin plates; energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylin- drical and spherical shells, including bending. Letter grading.


234. Advanced Topics in Structural Mechanics. (4). Lecture, four hours; outside study, eight hours. Limited to graduate engineering students. Current topics in composite materials, computational methods, finite element analysis, structural synthesis, nonlinear me- chanics, and structural mechanics of very small and large strains. Topics may vary from term to term. Letter grading.

235A. Advanced Structural Analysis. (4). Lecture, four hours; outside study, eight hours. Requisite: course 135A. Recommended: course 135B. Review of matrix force and displacement methods of structural analysis; virtual work theorem, virtual forces, and displacements; theorems on stationary value of total and complementary potential energy, minimum total potential energy, Maxwell/Betti theorems, effects of approximations. Introduction to finite element analysis. Letter grading.

235B. Finite Element Analysis of Structures. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 130A, 256A, 245; concurrent enrollment involves application of finite element methods for deformable systems; solution methods for linear equations; analysis of structural systems with one-di- mensional elements; introduction to variational cal- culus; discrete elements and force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.

235C. Nonlinear Structural Analysis. (4). Lecture, four hours; outside study, eight hours. Requisite: course 235B. Classification of nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, La- grangian, Eulerian description of motion; finite ele- ment methods in geometrically nonlinear problems; postbuckling behavior of structures; solution of non- linear equations; incremental, iterative, programming methods. Letter grading.


243A. Behavior and Design of Reinforced Con- crete Structural Elements. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 143, 142. Advanced topics on design of reinforced concrete struc- tures, including stress-strain relationships for plain and confined concrete, moment-curvature analysis of sections and design methods. Footings, sheet piling, low-rise walls, as well as design of beam-column joints. Introduction to displacement-based design and applications of strut-and-tie models. Letter grading.
243B. Response and Design of Reinforced Concrete Structural Systems. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 243A, 246. Information on response and behavior of reinforced concrete buildings to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in earthquake response, nonlinear time history analyses, capacity design, and seismic safety analysis; calculation of capacity reduction factors. Letter grading.


247. Earthquake Hazard Mitigation. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 130, and M237A or 246. Concept of seismic isolation, linear theory of base isolation, visco-elastic and hysteretic behavior, elastomeric bearings under compression and bending, buckling of bearings, sliding bearings, passive energy dissipation devices, response of structures with isolation and passive energy dissipation devices, static and dynamic analysis procedures, code provisions and design methods for seismically isolated structures. Letter grading.


249. Selected Topics in Structural Engineering, Mechanics, and Geotechnical Engineering. (2). Lecture, two hours; outside study, six hours. Review of recent research and developments in structural engineering, structural mechanics, and geotechnical engineering. Structural analysis, finite elements, structural stability, dynamics of structures, structural design, earthquake, ground motion, elasticity, plasticity, structural mechanics, mechanics of composites, constitutive modeling, geom Mechanics, and geotechnical engineering. May be repeated for credit. S/U grading.

250A. Surface Water Hydrology. (4). Lecture, four hours; outside study, eight hours. Requisite: course 150. In-depth study of surface water hydrology, including discussion and interrelationship of major topics such as rainfall and evaporation, snow and ice, interception, ground water, lakes and reservoirs, rivers and streams, water quality, and water resources. Letter grading.


250C. Hydrodynamics. (4). Lecture, four hours; outside study, eight hours. In-depth study of hydrodynamic processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, exchange of water, energy, and heat between soil and vegetation surface and overlying atmosphere, flux and transport in turbulent boundary layer, basic remote sensing principles. Letter grading.

250D. 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; optimal timing, sequencing and sizing of water resources projects; and multiprojective planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

251A. Rainfall-Runoff Modeling. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251B. Introduction to hydrologic modeling concepts, and including rainfall-runoff analysis, input data, uncertainty, modeling, estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.


251C. Remote Sensing with Hydrologic Applications. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic physical concepts of remote sensing as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and parameter estimation of vegetation, land cover, and water surface. Letter grading.

251D. Hydrologic Data Assimilation. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic concepts of classical and Bayesian estimation theory for purposes of hydrologic data assimilation. Applications geared toward assimilating disparate observations into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4). Lecture, four hours; outside study, eight hours. Requisites: course 106A, one or more courses from Economics 1, 2, 11, 100, 101. Economic theory and applications in analysis and management of water and environmental problems; application of price theory to water resource management and renewable resources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.


255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 254A, 255A. Fundamentals of environmental engineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-bed processes, aerobic and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

255B. Biological Processes for Water and Wastewater Treatment. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 254A, 255A. Membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrolysis, and the fundamentals of biological and practical and theoretical standpoints. Letter grading.

256A. Introduction to Atmospheric Chemistry. (4). Lecture, four hours; outside study, eight hours. Requisite: course 256A. In-depth study of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, and emerging pollutants, toxicity, and nutrients. Discussion of reactions in the environment, including fate and transport of pollutants in aquatic environments, and their effect on aquatic life. Letter grading.


258A. Membrane Separations in Aquatic Systems. (4). Lecture, four hours; outside study, eight hours. Requisites: course 258A. Membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electrolysis, and the fundamentals of biological and practical and theoretical standpoints. Letter grading.

259A. Selected Topics in Environmental Engineering. (2 to 4). Lecture, four hours; outside study, eight hours. Review of recent research and developments in environmental engineering. Water and wastewater treatment systems, nonpoint pollution, multimedia impacts. May be repeated for credit. S/U grading.

259B. Selected Topics in Water Resources. (2 to 4). Lecture, four hours; outside study, eight hours. Review of recent research and developments in water resources. Water supply and hydrology, global climate change, economic planning, optimization of water resource development. May be taken for maximum of 4 units. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and groundwater, multimedia water resource planning, and optimization of water resource systems. Topics may vary from term to term. Letter grading.


261B. Advanced Biological Processes for Water and Wastewater Treatment. (4). Lecture, four hours; outside study, eight hours. Requisite: course 256A. In-depth study of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, and emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

M262A. Introduction to Atmospheric Chemistry. (4). Same as Atmospheric and Oceanic Sciences M203A. Lecture, three hours. Requisite for undergraduate students: 203B. Introduction to atmospheric chemistry; thermodynamics; spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of tro-

263A. Physics of Environmental Transport. (4). Lecture, four hours; outside study, eight hours. Described for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment-water interface; air-water gas exchange; particulates, droplets, and bubbles; small-scale dispersion and mixing; effect of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport in Environmental Interfaces. (4). Lecture, four hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of theoretical models and experimental observations. Application to important environmental engineering problems. Letter grading.

265A. Mass Transfer in Environmental Systems. (4). Lecture, four hours; computer applications, two hours; outside study, eight hours. Designed for graduate environmental engineering program students. Physical chemistry and mass transfer fundamentals related to contaminant fate and transport in soil, air, and water systems, including soil/water sorption and desorption, contaminant retardation, vaporization and dissolution of nonaqueous phase liquids (NAPL), and other environmental systems. Letter grading.


267. Environmental Applications of Geochemical Modeling. (4). Lecture, four hours; outside study, eight hours. Requisite: course 254A. Geochemical modeling is important tool for predicting environmental impacts of contamination. Hands-on experience in modeling using geochemical software packages commonly found in environmental consulting industry to gain better understanding of governing geochemical principles pertaining to movement and transformation of contaminants. Types of modeling include speciation, mineral solubility, surface complexation, reaction path, inverse mass balance, and reactive transport modeling. Case studies involve acid mine drainage, waste disposal, bioavailability and risk assessment, mine tailings and mining waste, deep well injection, landfill leachate, and microbial respiration. Research/modeling project required. Letter grading.

C282. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Correlation, analysis, and metrication of aspects of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of pavement distress/serviceability and factoring of these into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C182. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4). Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching team assigned course, S/U grading.

297. Seminar: Current Topics in Civil Engineering. (2 to 4). Seminar, to be arranged. Lectures, discussions, and student presentations and projects in areas of current interest in civil engineering. May be repeated for credit. S/U grading.

298. Seminar: Engineering. (2 to 4). Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

498. Teaching Assistant Training Seminar. (2). Seminar, two hours. Preparation: appointment as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8). Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12). Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and presentation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16). Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and presentation for Ph.D. preliminary examination. S/U grading.


599. Research for and Preparation of Ph.D. Dissertation. (2 to 16). Tutorial, to be arranged. Limited to graduate civil engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Classics / 233

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Kathryn A. Morgan, Ph.D., Chair

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John K. Papadopoulos, Ph.D.
Amy E. Richlin, Ph.D.
Gailia Stasio, Ph.D.
Brent H. Vine, Ph.D.

Professors Emeriti
Ann L.T. Bergren, Ph.D.
Bernard D. Frischer, Ph.D.
Sander M. Goldberg, Ph.D.
Michael W. Haslam, Ph.D.
Steven Lattimore, Ph.D.
Philip Levine, Ph.D.
Jan Puhvel, Ph.D.

Associate Professors
Robert A. Curval, Ph.D.
Alex C. Purves, Ph.D.
Mario Telò, Ph.D.

Assistant Professors
Chris J. Johanson, Ph.D.
Francesca K. Martelli, D. Phil.
Kathryn J. McDonnell, Ph.D.

Adjunct Associate Professor
Catherine Atherton, Ph.D.

Scope and Objectives
The civilizations of ancient Greece and Rome are the focus of research and teaching in the Department of Classics. These areas of study are important in their own right and for their contributions to the political, cultural, intellectual, and artistic development of the Western world. To this end, the department offers a wide variety of interdisciplinary courses in classical civilization (multiple-listed in the Art History, Philosophy, and Political Science Departments), as well as elementary and advanced courses in ancient Greek and Latin language, literature, and linguistics. Classical civilization courses include such topics as Greek and Latin literature in translation (genres of epic, comedy, tragedy, biography), classical mythology, religion, law, gender, and sexuality, politics, philosophy, art and archaeology, and the reception of the ancient world in modern cultures (cinema and classics).

The department offers Bachelor of Arts degrees in Classical Civilization, in Greek, in Latin, and in Greek and Latin and the Ph.D. degree in Classics. 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 Ph.D. program.

Undergraduate Study
Students considering a major in the department should consult the adviser as soon as possible in their University career, but in no case later than the point at which they are about to take upper division courses.

The majors offered in the Classics Department are designated capstone majors. 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.

The author of the Classics Department offers Bachelor of Arts degrees in Classical Civilization, in Greek, in Latin, and in Greek and Latin and the Ph.D. degree in Classics. 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 Ph.D. program.
material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discussion with their peers.

**Classical Civilization B.A.**

**Capstone Major**

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 a formal and balanced introduction to the historical and cultural experiences of the ancient Greeks and Romans. The program of study is structured, yet not rigid. Lower division survey courses and requirements in elementary language study, ancient history, and classical art establish an essential background of knowledge, while electives encourage individual and specialized interests. The program offers a broad range of courses in the fields of language, literature, history, mythology, religion, philosophy, art, and archaeology. The major serves as excellent and rewarding preparation for a professional career in medicine, law, business, journalism, communications, or the arts.

**Preparation for the Major**

**Required:** Classics 10, 20; Greek 3 or 16 or Latin 3 or 16, and two courses from 30, 40W, 41W, 42, 51A, 51B, 60, 87GE, 88GE.

**Transfer Students**

Transfer applicants to the Classical Civilization major with 19 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** (1) Ten 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). All other courses in the 190 series may be substituted only by petition.

**Greek B.A.**

**Capstone Major**

**Preparation for the Major**

**Required:** Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

**Transfer Students**

Transfer applicants to the Greek major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** (1) Seven upper division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

**Greek and Latin B.A.**

**Capstone Major**

**Preparation for the Major**

**Required:** Classics 10, 20; Greek 1, 2, 3, 20 and Latin 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

**Transfer Students**

Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

**Latin B.A.**

**Capstone Major**

**Preparation for the Major**

**Required:** Classics 10, 20; Latin 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

**Transfer Students**

Transfer applicants to the Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** (1) Seven upper division Latin courses, including course 110; Latin 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser; (3) one capstone seminar (Classics 191).

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.

**Honors Program**

**Admission**

The honors program is open to all departmental majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

**Requirements**

All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper division classical civilization requirement for departmental majors.

To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental...
courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

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 classical 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.

To enter the minor, students must have an overall grade-point average of 2.0 or better. 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. 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. Successful completion of the minor is indicated on the transcript and diploma.

Latin Minor

The Latin minor is designed to recognize a serious commitment to the study of the Latin language. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper division reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, epistolology, and the novel.

To enter the minor, students must have an overall grade-point average of 2.0 or better. Required Lower Division Courses (14 units): Latin 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 2 and 3.

Required Upper Division Courses (20 units): Five courses selected from Latin 100 through 133.

A minimum of 20 units applied toward the major requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/grad/programintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Classics offers the Master of Arts (M.A.) degree in Greek, Master of Arts (M.A.) degree in Latin, and Master of Arts (M.A.) degree in Classical Philology. (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Classics. M.A. degrees can be earned only after students have been admitted to the Ph.D. program.

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.

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. American approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. 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. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. 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.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Greek art and archaeology at discretion of instructor. P/NP or letter grading.

51B. Art and Archaeology of Ancient Rome. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Roman art and archaeology at discretion of instructor. P/NP or letter grading.

60. Fantastic Journey: Antiquity and Beyond. (5) Lecture, two and one-half hours; discussion, one hour. Investigation of phenomenon of fantastic or imaginary journey, from Homer’s Odyssey to Stanley Kubrick’s 2001: A Space Odyssey. Examination of ways in which travel to strange or new worlds is presented through number of texts (and occasionally films) across different cultures and periods, with focus primarily on antiquity but also looking at how important motifs from ancient Greek and Roman travel narratives have endured to present day. Issues include cultural relativism, what makes space either familiar or alien, rebuilding of home in fantastic territories, methods of travel (both fantastic and mundane), methods of measuring time and distance across space, modern classifications of fantasy and science fiction, and to what extent these terms are applicable to ancient world. P/NP or letter grading.

87GE. General Education Seminar Sequences. (5) Seminar, three hours. Enforced requisite: course 20. Focused study of one aspect of ancient Greek or Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

88GE. General Education Seminar Sequences. (5) Seminar, three hours. Enforced requisite: course 20. Focused study of one aspect of ancient Greek or Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Herculaneum; Roman reli-
143B. Ancient Comedy. (4). Lecture, three hours. Requisite: course 10 or 20. Survey of comedy as it developed in Greek and Roman worlds. P/NP or letter grading.

144. Topical Studies in Ancient Culture. (4). Lecture, three hours. 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/NP or letter grading.

M145A. Ancient Greek and Roman Philosophy. (4). (Same as Philosophy M103A.) Lecture, three hours. Study of some major Greek and Roman philosophico-technical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphases on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M145B. Later Ancient Greek Philosophy. (4). (Same as Philosophy M103B.) Lecture, three hours. 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, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato—Earlier Dialogues. (4). (Same as Philosophy M101A.) Lecture, three hours; discussion, one hour. Preparation: course M146A. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M146B. Plato—Later Dialogues. (4). (Same as Philosophy M101B.) Lecture, three hours; discussion, one hour. Preparation: Requisite: course M146A. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M147. Aristotle. (4). (Same as Philosophy M102.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.


150A. Female in Greek Literature and Culture. (4). Lecture, three hours. Requisite: course 10. Interdisciplinary study of concept of Female in Roman literature and culture. P/NP or letter grading.

150B. Female in Roman Literature and Culture. (4). Lecture, three hours; discussion, one hour. Requisite: course 20. Interdisciplinary study of concept of Female in Roman literature and culture. P/NP or letter grading.

C151E. Archaeological Field Techniques. (12). Off-campus field archaeology, 36 hours. Preparation: at least one classical archaeology course. Training in techniques of archaeological research in field, including topographic and area survey, mapping and recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently 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 50 or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Ancient Greek, and Roman architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading.

M153L. Greco-Roman Architecture. (4). Lecture, three hours. Requisite: course 10 or 51A, 51B, Art History 50, or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Ancient Greek, and Roman architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading.

153M. Greeks and Romans on Bay of Naples. (4). Lecture, three hours; fieldwork, 21 hours. Recommended preparation: one course from 10, 20, 51A, 51B, or Art History 50. Four-week intensive study of history and cultures of Bay of Naples in classical antiquity. Survey of period from first settlements and colonization by Greeks in 8th century B.C.E. to destruction of Roman towns of Pompeii and Herculeum in 1st century C.E. Daily lectures and site visits. Field trips to Naples, Cumae, Pozzuoli, Paestum, Pompeii, Herculeum, Capri, Oplontis, and Bosco-reale. Part of UCLA Summer Travel Program. P/NP or letter grading.


161. Women's History in Ancient Mediterranean. (4). Lecture, three hours. Overview of approaches to problem of writing women's history in ancient Mediterranean world. Topics include law, medicine, work, religion (pagan, Christian, Jewish), and literature, with particular attention to themes of war, slavery, and sex trafficking. Exercises train students in critical use of primary documents and ancient sources, including inscriptions and other forms of material culture. P/NP or letter grading.
162. Classical Myth in Literature. (4). Lecture, three hours. Use of myth in principal authors and genres of Greek and Roman literature, with examples of its influence on later literature. P/NP or letter grading.

163. Ovid and Consequences. (4). Lecture, three hours. Study of Ovid’s Metamorphoses and persistence and extent of Roman poet’s influence on subsequent literature, art, and film. Close analysis of Ovid’s seminal 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. Requires: 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.


M167. Magic in Ancient World. (4). (Same as Aegean 167.) Lecture, three hours; discussion, two hours (when scheduled). Requires: 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 supernatul forces, rites aimed at controlling these forces ef-fectively, and character and social roles of ritual ex-perts in various cultures of ancient world. Source material includes types of magical spells, literary texts about magic, and artifacts such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Mythology. (4). Lecture, three hours. Requires: course 30, or GE Clusters 30A, 30B, and 30CW. Religions, mythical, and/or historical traditions of Greece and Rome compared with each other and with other traditions worldwide. P/NP or letter grading.

169. Sex in Ancient World. (4). Lecture, three hours. Requires: course 10 or History 1A. Examination of sex and gender systems of Greek and Roman cultures in ancient Mediterranean world. What Greek and Roman sex/gender systems were, how they changed over time, and why they matter. Readings include both modern theories about sex and history as foun-dation for course and broad range of ancient texts in translation. P/NP or letter grading.


180. Introduction to Classical Linguistics. (4). Lecture, three hours. Topics include Greek and Latin language. Intuitive approach to Greek and Latin, including Indo-European background, etymology, pronunciation, al-phabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. P/NP or letter grading.


190. Research Colloquia in Classics. (1). Seminar, one hour. Limited to juniors/seniors. Designed to bring together students undertaking supervised tuto-rial research in seminar setting with one or more fac-ulty 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. Capstone Seminar: Classics. (5). Seminar, three hours. Requires: courses 10, 20, at least four upper division major courses. Limited to declared ju-nior or senior departmental majors or minors may be ad-mitted with consent of instructor. Topical research seminar on important themes, periods, genres of an cient Greek and Roman world. Intended to provide students opportunity for serious engagement with research in discipline under close faculty supervise-ment. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.


197. Individual Studies in Classics. (2 to 4). Tutorial, two hours. Limited to juniors/seniors. Individual inten-sive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.


199. Directed Research in Classics. (2 to 4). Tutorial, two hours. Limited to juniors/seniors. Supervised indi-vidual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract re-quired. P/NP or letter grading.

Graduate Courses


201B. Topics in Ancient History: Roman World. (2 or 4). Seminar, three hours. Introduction to basic methods and approaches to study of Roman history by intensive examination of selected topics, including readings of ancient texts and modern scholarship. S/U or letter grading.

M218. Paleography of Latin and Vernacular Manu-scripts, 900 to 1500. (4). (Same as English M215, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judg-ments with regard to place and date of origin, (2) pro-vide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and Latin vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

220A. Interfaces: Transmission of Roman Literature. (4). Lecture, three hours. Examination of trans-mission of Latin classical literature in late antiquity, Middle Ages, and Renaissance to understand pro cesses by which Latin literature has been preserved. S/U or letter grading.


245. Computing and Classics. (4). Discussion, three hours. Introduction to processing and analysis of digi-tized texts of classical authors for purposes of literary history and criticism. Letter grading.


251A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4). Seminar, three hours. S/U or letter grading.


251D. Seminar: Classical Archaeology—Greco-Roman Painting. (2 or 4). Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman painting. May be repeated for credit with consent of instructor. 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 area. Concurrently 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 to-pography and monuments of Athens, combining evi-dence 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.

287. Graduate Colloquium in Classical Literature. (2 to 4). Seminar, three hours. Students may design methods of study 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). Sem-inar, to be arranged. Preparation: apprentice per-sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-ance and supervision of regular faculty member re-sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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 clas-sical civilization, Greek, and/or Latin undergraduate courses. Readings and group discussions in topics related to teaching in field of classics. May not be ap-plicated toward M.A. or Ph.D. course requirements. S/U grading.
Greek

Lower Division Courses

1. Elementary Greek. (5). Lecture, three hours; discussion, two hours. P/NP or letter grading.

2. Elementary Greek. (5). Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.


4. 8A-8B-8C. Elementary Modern Greek. (4–4–4). (Formerly numbered 8.) Lecture, three hours. Course 8A is enforced requisite to 8B, which is enforced requisite to 8C. Introductory modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

5. 9A-9B-9C. Intermediate Modern Greek. (4–4–4). Lecture, three hours. Enforced requisite: course 8C. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level program in modern Greek language study from communicative and task-based approach. Continued development of student understanding and use of Greek syntax and morphology through oral and written activities, reading, and listening. Students master basic communication skills, communicate in everyday real-life situations, comprehend simple passages, announcements, and advertisements, master basic rules of modern Greek grammar and syntax, read fluently, and write accurately. P/NP or letter grading.

6. 101A. Homer: Iliad. (4). Lecture, three hours. Enforced requisite: course 9A. Topics vary from year to year and include “Iliad,” “Odyssey” and “Homeric Hymns.” Each course may be taken independently for credit. P/NP or letter grading.


13. 107. Hesiod. (4). Lecture, three hours. Requisite: course 100. Reading of Theogony and excerpts from Works and Days, with emphasis on Hesiod’s place in Greek literature and his role in transmission of Greek mythology. P/NP or letter grading.


24. 131. Readings in Later Greek. (4). Lecture, three hours. Requisite: course 100. Topics vary from year to year and include “Longus,” “On Sublime; Marcus Aurelius; Arrian; Second Sophistic; Plutarch; later epic; epigram; epistolarity Graeci. P/NP or letter grading.


27. 200A-200B-200C. History of Greek literature. (4–4–4). Lecture, three hours. Lectures are given on the history of Greek literature, supplemented by reading of Greek texts in original language. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading.

28. 201A-201B. Homer: Iliad. (2 or 4 each). Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

29. 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.

30. 203. Hesiod. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

31. 204. Homeric Hymns. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

32. 205. Aeschylus. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

33. 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.

34. 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.

35. 208A-208B. Aristophanes. (2 or 4 each). Lecture, three hours. Course 208A is requisite to 208B. S/U (2-unit course) or letter (4-unit course) grading.

36. 209A-209B. Seminars: Hellenistic Poetry. (2 or 4 each). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.


38. 211A-211B. Herodotus. (2 or 4 each). Lecture, three hours. Course 211A is requisite to 211B. S/U (2-unit course) or letter (4-unit course) grading.

39. 212A-212B. Thucydides. (2 or 4 each). Lecture, three hours. Course 212A is requisite to 212B. S/U (2-unit course) or letter (4-unit course) grading.

40. 213. Greek Historiography. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

41. 214. Demosthenes. (2 or 4). Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

42. 215. Early Greek Orators. (2 or 4). Seminar, three hours. Studies in works of Antiphon, Andocides, and Lysias. S/U (2-unit course) or letter (4-unit course) grading.

43. 216. Menander. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

44. 217A-217B. Greek Lyric Poetry. (2 or 4 each). Seminar, three hours. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading.

45. 221A. 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 epinician.

46. 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.

47. 221. Pre-Socratic Philosophers. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

48. 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.

49. 223A-223B. Aristotle. (2 or 4 each). Lecture, three hours. Course 223A is requisite to 223B. S/U (2-unit course) or letter (4-unit course) grading.

50. 224. Post-Aristotelian Philosophy. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

51. 229. Sight Translation. (2 or 4). Seminar, three hours. Preparation: graduate-level knowledge of ancient Greek. Practice in translating previously unseen texts from variety of authors and genres. Topics include peculiarities of style and vocabulary of distinct genres, literary versus scholarly translation, semantic properties of particular words and constructions. S/U grading.
240A-240B. History of Greek Language. (2 or 4 each). Lecture, four hours. S/U or letter grading.
243. Mycenaean Greek. (2 or 4). Seminar, three hours. Script, language, and grammar of Linear B inscriptions; their relevance to ancient Greek linguistic and cultural history. S/U or letter grading.
244. Greek Papyrology. (4). Lecture, three hours. Preparation: reading knowledge of Greek. Introduction to Greek papyri, considered both as historical documents and as carriers of literature. S/U or letter grading.
250. Topical Studies of Ancient Greece. (2 or 4). Lecture, three hours. Advanced study of some aspect of ancient Greek language, literature, and/or culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.
597. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. S/U grading.

Latin

Lower Division Courses

1. Elementary Latin. (5). Lecture, three hours: discussion, two hours. P/NP or letter grading.
2. Elementary Latin. (5). Lecture, three hours: discussion, two hours. Enforced requisite: course 1 or 2. P/NP or letter grading.
15. Intensive First-Year Latin. (12). Lecture, nineteen hours. Eight-week intensive introduction to Latin language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

Upper Division Courses

105A. Beginning Vergil: Selections from Aeneid I-VI. (4). Lecture, four hours. Requisite: course 100. Reading of one or more books from first half of Aeneid, designed especially for students with only limited experience in reading Latin poetry. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.
105B. Advanced Vergil. (4). Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil’s Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings. P/NP 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, or selected satiric texts. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.
119A. Readings in Roman Prose. (4). Lecture, three hours. Requisite: course 100. Readings of selected Roman prose author(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), literary genre (Roman biography, antiquarian learning, or science), and/or theme. May be repeated for credit with topic change. P/NP or letter grading.
119B. Readings in Roman Poetry. (4). Lecture, three hours. Requisite: course 100. Readings of selected Roman poetry author(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), epic, lyric, elegy, and/or theme. May be repeated for credit with topic change. P/NP or letter grading.
121. Patristic Texts. (4). Lecture, three hours. Requisite: course 100. Reading and discussion of one or more Latin patristic texts (especially works of Ambrose, Augustine, and/or Jerome), with emphasis on specific features of patristic, as opposed to classical, Latin. P/NP or letter grading.
197. Individual Studies in Latin. (2 to 4). Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B-200C. History of Latin Literature (4-4-4). Lecture, three hours. Lectures on history of Latin literature, supplemented by reading of Latin texts in original language. Each course may be taken independently for credit. S/U or letter grading.
201. Roman Epic Tradition. (2 or 4). Seminar, three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Stilus Ilitacus), with attention to literary tradition of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.
202. Seminar: Catullus. (2 or 4). Seminar, three hours. Delineated concern of entire Catullan corpus. S/U (2-unit course) or letter (4-unit course) grading.
203A. Elegiac Poetry. (2 or 4). Lecture, three hours. S/U or letter grading.
203B. Propertius. (2 or 4). Lecture, three hours. Close study of one epic poet other than Vergil. S/U or letter grading.
204A-204B. Vergil’s Aeneid. (2 or 4 each). Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.
205A. Seminar: Vergil’s Bucolics. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.
205B. Seminar: Vergil’s Georgics. (2 or 4). Seminar, three hours. Course 205A is not requisite to 205B. Close reading of Vergil’s text; careful evaluation of influential criticism on poem, much of it recent; examination of 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 history of Roman comedy. S/U (2-unit course) or letter (4-unit course) grading.
208. Ovid. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.
209. Seminar: Roman Satire. (2 or 4). Seminar, three hours. Detailed study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. Choice of author varies from year to year. Close study of text, of characteristics of writer as social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter (4-unit course) grading.
211A-211B-211C. Seminars: Roman Historians. (2 or 4 each). Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A. Sallust; 211B. Livy; 211C. Tacitus.

214. Ancient Biography: Roman Lives. (2 or 4). Seminar, three hours. Study of biography in ancient Rome. Literary survey or focused readings on lives of Cornelia Nepos, Suetonius, Tacitus, or imperial chroniclers of 4th century C.E. S/U (2-unit course) or letter (4-unit course) grading.

215. Seminar: Roman Novel. (2 or 4). Seminar, three hours. Works such as Petronius' Satyricon and Apuleius' Metamorphoses: study of literary problems. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Rhetoric. (2 or 4). Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herenium, Cicero's De Oratore, Seneca's Controversiae or Suaeiae, Quintilian's Institutio), with attention to its place in rhetorical tradition. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

220. Cicero's Orations. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221A. Cicero's Philosophical Works. (2 or 4). Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221B. Cicero: De Natura Deorum. (2 or 4). Lecture, three hours. Course 221A is not requisite to 221B. S/U (2-unit course) or letter (4-unit course) grading.

222. Seminar: Roman Stoicism. (2 or 4). Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

223. Lucretius. (2 or 4). Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

224. Seneca. (2 or 4). Seminar, three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

229. Sicht Translation. (2 or 4). Seminar, three hours. Preparation; graduate-level knowledge of Latin. Practice in translation of previously unseen texts from variety of authors and genres. Topics include peculiarities of style and vocabulary of distinct genres, literary versus scholarly translation, semantic properties of particular words and constructions. S/U grading.

231A-231B. Seminars: Medieval Latin. (2 or 4 each). Seminar, three hours. Preparation: at least one upper division Latin course. Course 231A is not requisite to 231B. Studies in various areas of language and literature of medieval Latin. May be repeated for credit with consent of instructor. S/U (2-unit course) or letter (4-unit course) grading.

232. Vulgar Latin. (2 or 4). Lecture, three hours. History and characteristics of popular Latin; its development into early forms of Romance languages. S/U or letter grading.

235. Late Latin Poetry. (2 or 4). Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several 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.

236. Late Latin Prose. (2 or 4). Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several prose authors who flourished between death of Tacitus and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.


245. Neo-Latin. (2 or 4). Seminar, three hours. Preparation: at least two upper division Latin courses. Require: 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. Methodology of instruction in conjunction with classroom practice. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. S/U grading.

597. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8). Tutorial, to be arranged. S/U grading.


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Adjunct Assistant Professor
Barry A. Sanders, J.D.

Scope and Objectives
The major in Communication Studies is an interdisciplinary curriculum leading to a Bachelor of Arts degree. It seeks to provide students with a comprehensive knowledge of the nature of human communication, the symbol systems by which it functions, the environments in which it occurs, its media, and its effects. Employing critical and empirical approaches, the major draws its resources from the social sciences, humanities, and fine arts. Four areas of focus are offered: communication technology and digital systems, interpersonal communication, mass communication and media institutions, and political and legal communication.

Undergraduate Study
Communication Studies B.A.

Students fulfilling the major in Communication Studies must complete the seven required lower division courses and a minimum of 11 upper division courses as set forth below. Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available at http://www.commstudies.ucla.edu to regularly enrolled UCLA students during Spring Quarter.

Preparation for the Major

Students are encouraged but not required to complete as many lower division preparation for the major courses as possible before admission to the program.

Required: Communication Studies 1, 10, one course selected from Anthropology 33, Communication Studies M70, or Linguistics 1, one statistics course from Economics 41 or Statistics 10. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1 or 5 or Political Science 30.

Transfer Students

Transfer applicants to the Communication Studies major with 90 or more units must complete at least four of the following seven lower division required courses: Communication Studies 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or political economy.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Students must complete 11 upper division courses as follows:

Required Core Courses: Communication Studies 100, 150.
Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Counseling Office). Students graduate with a bachelor's degree in communication studies and a specialization in Computing.

Communication Studies

Lower Division Courses

1. Principles of Oral Communication. (4). Lecture, four hours. Introduction to the construction of Entries-Level Writing requirement. Examination of foundations of communication and public speaking. Consideration of number of basic theories related to study of communication and development of skills to enable composition and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.

2. Public Speaking for Nonnative Speakers. (4). Lecture, four hours. Designed for nonnative speakers of English to increase fluency and vocabulary while improving presentational 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.

3. Learning American English and Culture from Movies. (4). Lecture, four hours. Advancement of students' fluency in American 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.

4. Inside Hollywood with Hollywood Insiders. (4). Lecture, three hours. Survey of historical and cultural traditions in American entertainment industries, with focus on questions of policy and development and how they have shaped contemporary American film and television. Examination of historical and policy issues, with guest lectures. MT72A-MT72B. (Same as GE Cluster M72A-M72B. Lecture, three hours; discussion, one hour. P/NP or letter grading.

5. Principles of Oral Communication. (4). Lecture, four hours; discussion, one hour. Introduction to fields of mass communication and interpersonal communication. Study of modes, media, and effects of mass communication, interpersonal processes, and communication theory. Letter grading.

6. Origin of Language. (5). (Same as Ger M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Theoretical and methodological issues surrounding origin of language. Topics include evolutionary theory, evolution of man, how language is organized in brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

7. Sex from Biology to Gendered Society. (6-8-6). (Same as GE Clusters MT72A-MT72B-MT72C, and Sociology MT72A-MT72B-MT72C.) Course MT72A is enforced requisite to MT72B, which is enforced requisite to MT72C. Limited to first-year freshmen. MT72A. Lecture, three hours; discussion, two hours. Examination of many issues entailed in rights of freedom of expression, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.


9. Basic Preparation; Basic Law. (4-4). Lecture, three hours. Participation in on-campus and intercollegiate forensic activities, including exposure to fundamentals of competitive forensic events. Students practice public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in independent research and analysis. P/ NP or letter grading.

10. Analysis and Briefing. (4). Lecture, three hours. Study of entrepreneurial communication from foundations in internal and external communication and development of presentation, discussion, and presentational skills utilized in existing, as well as in development of, contemporary innovative businesses. P/ NP or letter grading.

11. Gender and Communication. (4). Lecture, four hours. Understanding gender is fundamental part of understanding who we are as human beings. Exploration of crucial role of gender in spheres of life involving communication and role and origins of gender differences in communication. Contexts of communication include family, workplace, sexuality, and intimate relationships. Discussion of how media influence conceptions of personal identity, social construction of gender, and reproduction of these gender differences. Letter grading.

12. Current Issues in Vocal Communication. (4). Seminar, three hours. Course 118 or 120. Examination of contemporary issues in evolvement of vocal communication. Topics include analysis of communication in advertising, social communication, and speech production and perception. P/ NP or letter grading.
M113. Nonverbal Communication and Body Language. (4). (Formerly numbered 113.) (Same as Psychology M137B.) Lecture, three hours. Examination of how variations in 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 voice). Emphasis on understanding the role of context in nonverbal communication, with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

114. Understanding Relationships, (4). Lecture, four hours. Examination of interpersonal communication that occur in close relationships, especially romantic relationships. In-depth coverage of variety of relationship topics, including intimacy, stages of intimate relationships, which roles people get involved in, and how people use nonverbal cues as they interact. Satisfies Writing II requirement. P/NP or letter grading.


116. Communication and Conflict in Couples and Families. (4). Lecture, three hours. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family dysfunction (e.g., separation and divorce). P/NP or letter grading.

M117. Negotiation. (4). (Formerly numbered 117.) (Same as Labor and Workplace Studies M117.) Lecture, four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underlie successful negotiation. Experiential course in which students learn broad array of negotiation skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.


119. Voice and Its Perception. (4). Lecture, four hours. Focus on how human voice conveys information about identity of speakers, physical characteristics, personality, and emotional state, and on how listeners utilize this information to make judgments about speakers. Letter grading.

120. Group Communication. (4). Lecture, four hours. Examination of group communication from perspectives of sociology, communication, and psycholinguistics. Topics include evolution of cooperation, ingroup and outgroup dynamics, gossips, music improvisation, and conversational behavior. P/NP or letter grading.

121. Talk and Mass Communication. (4). Lecture, three hours. In recent years there has been sea change in broadcast news and public affairs programming. News was once packaged and presented to audiences in form of scripted narrative or story, but increasingly news is organized around spontaneous interactional encounters between some combination of journalists, public figures, and ordinary citizens. Examination of interactional forms, with emphasis on news interviews, presidential press conferences, and political speeches before live audiences, from standpoint of their historical development and consequences for media, political communication, and public sphere. Primary focus on inner workings of each form of talk—social norms and practices that organize participation and that distinguish forms of broadcast talk from other forms of conversation. Letter grading.

122. Promoting Dialogue between Diverse Worlds. (4). Lecture, three hours. Exploration of issues related to management of conflict between major areas of world, with focus on historical background, perception gaps, and political context. Communication approaches based on nonviolence and management of moral conflict offered as alternatives to clash of civilizations. Letter grading.

M123W. Talk and Body. (5). (Same as Anthropology M148W and Applied Linguistics M161W.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language. Examination of relationship between language and human body raises host of interesting topics. New approaches to phenomena such as embodiment become possible when body is analyzed, not as isolated entity but as part of wider affective and anthromorphic self. Examinations lodged within both processes of human interaction and rich settings where people pursue courses of action that count in their lives. Satisfies Writing II requirement. P/NP or letter grading.

124. Psychology of Language and Gender. (4). (Formerly numbered M124.) Lecture, three hours. Examination of current topics at intersection of gender and language. Topics include sex differentiation in language cross-culturally; sex bias in lexicon and usage; sex differences in lexicon, syntax, phonology, and nonverbal behavior; development of sex-differentiated languages in children; women’s and men’s language in interracial settings. P/NP or letter grading.

M125. Talk and Social Institutions. (4). (Same as Sociology CM125.) Lecture, four hours; discussion, one hour. Examination of practices of communication and social interaction in number of major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. P/NP or letter grading.

126. Evolution of Interpersonal Communication. (4). Lecture, four hours. Examination of current issues in interpersonal communication from perspectives of evolutionary psychology and biology. Topics include coevolution of signaler and receiver adaptations, nonverbal communication, courtship behavior, miscommunication, and implications of implied language use, and deception. Letter grading.


128. Play and Entertainment. (4). Lecture, three hours. Entertainment is significant component of both interpersonal and mass communication. Examination of evolutionary history, cognitive mechanisms, and social functions of play and entertainment, as well as their possible pedagogical effects. Letter grading.

129. Gaming Mind. (4). Lecture, three hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technologically sophisticated, with focus on what people learn from games, how they learn it, and whether learning is potentially useful. Letter grading.

130. Cultural Factors in Interpersonal Communication. (4). Lecture, three hours. Study of cultural factors as they affect quality and processes of interpersonal communication: exercises in participation, analysis, and criticism of interethnic and intercultural communications in small group configuration. P/NP or letter grading.

131. Culture versus Media? (4). Lecture, three hours. Invention of meaning of cultural texts, analysis of representation of particular groups, and consideration of how audiences read those meanings and uses to such texts, with focus on media in relation to issues of globalization, consumption, class, race, gender, youth, and sexuality. 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 these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, political propaganda, and effects of media ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

134. Organizational Communication. (4). Lecture, three hours. Introduction to issues and literature related to communication within organizations. Organizational communication concerns theories (exploration of the nature of behavior in organizations, study of bureaucracy and its alternatives, metaphors for organizational communication, power, conflict, and strategic communication in organizations), focus on behavior of individuals and teams within organizations. Letter grading.

135. Narrative in Mass Communication. (6). (Same as Honors College M135.) Seminar, four hours. Examination of narrative as primary function of mass media, beginning with origins of narrative, cultural, and rhetorical functions of storytelling and basic elements of narrative, then applying these to study of film, television, and print media. P/NP or letter grading.

136. Media Portrayals of Gays and Lesbians. (4). Lecture, three hours. How mass media have portrayed gays and lesbians and why. Media’s depiction, portrayal, and handling of homosexuality, with particular focus on how gays and lesbians have been negatively stereotyped, portrayed unrealistically, and often not portrayed at all. Exploration not only of how gays and lesbians have been represented, but also why certain portrayals have tended to dominate. P/NP or letter grading.

M137. Transnational Bollywood. (4). (Same as Asian American Studies M172C.) Lecture, three hours. Study of how popular Bollywood cinema is studied as colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberalization in South Asia, as well as across South Asian communities in North America, U.K., and Africa. Examination of how complex relationships between Bollywood and transnational South Asian diasporas enable us to better understand South Asian American communities. P/NP or letter grading.

138. Political Marketing. (4). Lecture, three hours. Examination of theory and practice of political marketing in U.S. and impact of such marketing on democracy to prepare students to critically analyze and evaluate political communication and to advocate political goals, as well as to become more equipped to disseminate such messages. P/NP or letter grading.


141. Films of Persuasion: Social and Political Advocacy in Mass Society. (4). Lecture, four hours. Films often provide commentary about public issues. Examination of how films communicate to large audiences about history, society, and politics. Critical evaluation of these works to understand power and limitations of films as social persuasion. Letter grading.

142. Communicating Diversity in Organizations. (4). Lecture, three hours. Knowledge, skills, and abilities needed for students to understand and address various components of diversity in organizations, with emphasis on areas related to personnel, ethics, poli—
cies, initiatives, staff needs, staff development, and social interrelations. Students learn to think critically about various organizational situations. Designed to give students a better understanding of the role that discussions, debates, and perspectives related to organizations. Exploration of such areas as power, gender, race, social class, sexuality, ability, and age. Examination of relationship between these areas to organizational communication concepts such as assimilation and socialization, power, culture, employee conflict, and relationships. P/NP or letter grading.

143. Rhetoric of Popular Culture. (4). Lecture, three hours. Rhetorical approach to study of U.S. popular culture. Examination, both at theoretical level and 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 as vehicle for human action. Letter grading.

M144A-M144B. Conversational Structures I, II. (4-4). (Same as Sociology M124A-M124B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. Introduction to some structures that are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited developmental analysis. Requisite: course M141. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

145. Situation Comedy and American Culture. (4). Lecture, three hours. Historical analysis of situation comedy 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 by media portraying women and/or minorities in entertainment, advertising, and informational communication. Letter grading.

M147. Sociology of Mass Communication. (4). (Same as Sociology M176.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Historical analysis 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.


M149. Media: Gender, Race, Class, and Sexuality. (5). (Same as Gender Studies M149 and Labor and Workplace Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture influences people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinate 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.

150. Methodologies in Communication Research. (5). Lecture, four hours; discussion, one hour. Requisites: Statistics 10 or 11, and 12. Limited to Communication Studies majors and graduate students. Critical analysis of qualitative and quantitative methodologies in communication research. Letter grading.

151. Computer-Mediated Communication. (4). Lecture, four hours. Examination of use of computer technology, particularly Internet, has influenced patterns of human communication. History and distinctiveness of computer-mediated communication (CMC), CMC’s influence on modern, economic, political, and social interaction. Letter grading.


154. Social Communication and New Technology. (4). Lecture, four hours. Internet’s digital core was designed for military command. Yet emerging network was gradually employed 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. Social Aspects of New Electronic Media: Introduction to Information Society. (4). Lecture, three hours. Examination of evolution and social implications of new information and communication technologies (e.g., cell phones, e-mail, social networking sites: Facebook, MySpace, Friendster, You Tube) through social network analysis and other social science research methods. P/NP or 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 sites (e.g., MySpace, Friendster, You Tube) through social network analysis and other social science research methods. P/NP or letter grading.

157. Celebrity, Fame, and Social Media. (4). Lecture, three hours. Analysis of how following personal lives of media-created celebrities impacts self-esteem, connectedness, and personal relationships from cultural and media perspective (e.g., vlogger, blogging, perspectives, and how celebrities contribute to measurable financial gain. Topics include celebrity gossip and privacy, 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, four hours. Study of role assigned to technology in theories of communication. Examination of origins and societal implications of major revolutions in communication technology throughout history. Survey of origins and societal implications of major development, starting with emergence of speech itself. Letter grading.

M159. Pornography and Evolution. (4). (Same as Gender Studies M159.) Lecture, three hours. Discussion of theories and research on why pornography exists and its effects. Use of topic to illustrate evolution of communication to scientific societies generally. Letter grading.

160. Political Communication. (4). Lecture, four hours; discussion, one hour. Study of nature and function of communication in political sphere; analysis of how new online communication technologies are employed to project ideas to foreign publics in 20th and 21st centuries. Discussion of forces that influence communication as they affect quality of communication content. Letter grading.

161. Electoral Politics: Mass Media and Elections. (4). (Same as Political Science M141D) Lecture, three or four hours; discussion, one hour (when scheduled). Designed to assess how communication is conducted in American politics of manner in which Americans’ political beliefs, choices, and actions are influenced by mass media presentations, particularly during election campaigns. Topics include processes of mass attitude formation and change, different types of media “effects,” and role of media in American political process. P/NP or letter grading.

162. Presidential Communication. (4). Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and strategies, as well as how presidential campaign communication has evolved and implications for how presidents govern. Letter grading.


M165. Agitational Communication. (4). (Formerly numbered 165.) Lecture, four hours; discussion, one hour (when scheduled). Study of theory of agitational communication as force for change in existing institutions and policies and for initiating new and change-oriented social movements. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.

166. Communicative Dynamics in Film and Televisive Production. (4). Illustration of how motivation and creativity interact with business interest, research, and policies in producing entertainment for mass market. Letter grading.

167. Sex, Politics, and Race: Free Speech on Campus. (4). Lecture, three hours. Focus on concept of freedom of expression on campus during postsecondary education. How First Amendment, case law, and federal and state statutes affect students’ and teachers’ abilities to speak on and off campus. Discussion of harassment and campus speech codes, campus demonstrations, student publications, student conduct regulations, and restrictions on displays or announcements on campus. Letter grading.

168. Free Speech in Advertising. (4). Lecture, three hours. Exploration of First Amendment and commercial speech within context of product and service advertising (e.g., tobacco, alcohol, illegal drugs, gambling; pharmaceutical drugs; and political advertisements). Examination of when, where, and how (time/place/manner) restrictions imposed on advertising and commercial speech, with specific reference to shopping malls, news tabloid racks, and billboards, among other places. P/NP or letter grading.


171. Theories of Freedom of Speech and Press. (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 significance of these values examined in connection with issues such as obscenity, def-
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Scope and Objectives
The Department of Community Health Sciences is concerned with social and behavioral research applied to health, health promotion, and public health practice. The focus is on programs, strategies, and actions that can improve health in the context of social, cultural, political, economic, and environmental factors. Of particular interest is how social and cultural factors, social programs, the healthcare system, and social policies influence health beliefs and perceptions, health behaviors, and health status within populations.

The department offers schoolwide professional (M.P.H. and Dr.P.H.) and academic (M.S. and Ph.D.) 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 Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Community Health Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Community Health Sciences and a Master of Public Health for Professional (M.P.H., HP) degree.

Community Health Sciences
Lower Division Courses
60. Intergroup Dialogue: Peer Dialogue. (2). Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each others’ perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences in various social and institutional contexts. Exploration of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/N/P or letter grading.

80. FITTED: Fitness Improvement Training through Exercise and Diet. (1). Lecture, one hour, activity, two hours. Success in undergraduate experience is very much influenced by attributes beyond intellectual competence. Examination of personal, social, and environmental factors that influence college students’ 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 of practical skills with application to nutrition, physical activity, positive body image, stress management, and other aspects of wellness as students participate in critical evaluation of popular diets, healthy body weights, fitness, supplements, fad diets, or ideals, and self-destructive thoughts. P/N/P grading.

90. Aging Frontier: Public Health Perspective. (4). Lecture, three hours; discussion, one hour. Introduction to gerontology from public health perspective, emphasizing prevention and promotion of healthy aging. Special attention to health and aging among women and racial/ethnic minorities. Letter grading.

91. Peer Health Counselor Training. (4), Lecture, four hours. Limited to students in Peer Health Counselor Program. Analysis of student healthcare issues as related to campus healthcare delivery system and to healthcare consumer. Identification of health needs, determination of appropriate resources, delivery of preventive and self-care education, and delineation of peer health counselor’s role. P/N/P or letter grading.

Upper Division Courses
100. Introduction to Community Health Sciences. (4). Lecture, four hours. Limited to students in Public Health minor and graduate students. Introductory course to provide non-Community Health Sciences M.P.H. students and qualified undergraduate students with broad and comprehensive overview of concepts, empirical research, and public health practice in community health sciences, with emphasis on social context and determinants of population health and principles of planning interventions to protect and improve public health. Ways to define and measure health and illness, social construction of illness, social and behavioral determinants of health, and disparities, including socioeconomic status, race/ethnicity, gender, and age. Social and behavioral theories of health-related behavior change, health promotion strategies and methods, and public policy. Case studies of evidence-based health promotion programs provided. Letter grading.

130. Nutrition and Health. (4). Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curriculum. P/N/P or letter grading.

132. Health, Disease, and Health Services in Latin America. (4). Lecture, four hours. Introduction to health, disease, and health services in Latin America, with emphasis on epidemiology, health administration, medical anthropology, and nutrition. P/N/P 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 care delivery 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-
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oretical and research foundations of intergroup dia-
logue, peer-facilitated discussions involving relation-
ship building (and coalition building) through thought-
ful engagement around different social identity issues. Study of variety of techniques, tools, and strategies to support students in their capacity to implement sus-
tained dialogues with students from other social iden-
ty 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 intergroup dialogue and social identity workshops. Facilitated dialogues with students on specific identity theme and further development of knowledge and tech-
niques in areas of group dynamics, conflict interven-
tion, communication, and cross-cultural and ethnic 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.

Graduate Courses

200. Global Health Problems. (4). Lecture, two hours; discussion, two hours. Overview of health profile of world in the century. Global health problems and methods by which they have been dealt in context of Alma Ata goal of health for all by year 2000. Letter grading.

205. Immigrant Health. (4). Lecture, two hours; dis-
cussion, one hour. Limited to graduate students. Overview of key topics in public health for docu-
mented immigrants and refugees in U.S.Demographics, health status, behavioral risk factors, and social determinants, health and human rights, and access to healthcare and prevention ser-

206. Introduction to Demographic Methods. (4). (Same as Biostatistics M206, Economics M206, and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include de-

gométric rates, standardization, decomposition of differences, life tables, survival analysis, cohort anal-

ysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic diversity. Letter grading.

210. Community Health Sciences. (4). Lecture, three hours. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness be-
havior, 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. Intro-
duction to a range of research design 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.

211B. Requisites: courses 211A, 211B, and Biostatistics 100A or Epidemiology 100.

212. Advanced Social Research Methods in Health. (4). Lecture, four hours; laboratory, two hours; outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B, 406. Problems of health survey design and data collection; measure-
ment 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. Preparation: course 210. Application of concep-
tual, theoretical, and empirical knowledge to community-
based health education risk-reduction programs. Computer applications, data management, and re-
search methodologies taught through microcom-
puter and mainframe computer management and analysis of program databases. Letter grading.

214. Issues in Program Evaluation. (4). Discussion, three hours; reading and research paper, one hour. Preparation: course 210. Familiarization with funda-
mentals that explore problems of planning and implementing evalu-
ation research in context of local demonstration proj-
ects. Letter grading.

M216. Qualitative Research Methodology. (4). Seminar, three hours; laboratory, one hour. Enforced requisite: seminar in qualitative research methodology. Emphasis on using qualitative methods and techniques in re-
search and evaluation related to healthcare. Letter grading.

M218. Questionnaire Design and Administration. (4). (Same as Epidemiology M218.) Lecture, four hours. Requisites: courses 211A and 211B, or Epide-
miology 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: Biostatistics 100A, 100B, 406. Translation of theory into data analytic plan, its application to real data, and interpretation of results obtained through multivariate analysis. Anal-

ysis of quantitative data using range of multivariate techniques, such as linear multiple regression and lo-
gistic regression. Analysis of theoretical problem using student quantitative data or public use data. Letter grading.

220. Racism and Public Health. Social Epidemi-
ologic Approaches. (4). Seminar, three hours; dis-
cussion, one hour. Requisite: Biostatistics 100B. Integra-
tion of social epidemiologic methods and critical ap-
proaches to study of racial stratification and public health. Focus on (1) the role of race and class-re-
lated factors as social determinants of health, (2) building methodological competence for conducting research on racial and ethnic differences in health, and (3) developing critical self-consciousness to better understand how persons’ racial- or racism-rel-
ed perspectives and experiences might inform their research. Letter grading.

221. Introduction to Sociocultural Aspects of Health. (4). Lecture, three hours; discussion, one hour. Examination of how social stratification and cul-
ture relate to health and health-related behavior. Con-

sideration of four major status characteristics (age, ethnicity, gender, and socioeconomic status). Description of epidemiological patterns and discussion of so-

cial meaning of those four characteristics. Letter grading.

222. Understanding Fertility: Theories and Meth-
ods. (4). (Same as Sociology M206.) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of concep-
tual, theoretical, and empirical knowledge to under-
standing key proximate determinants of fertility, with emphasis on under-
standing key proximate determinants of fertility. For advanced students. Focus on interrelation of knowledge, attitudes, and behavior choices of indi-

viduals. Introduction to prevention interventions, ces-
sation interventions, anti-tobacco efforts in U.S., and international trends in tobacco use. Letter grading.

224. Social Determinants of Nutrition and Health. (4). Lecture, three hours: discussion, one hour. Prepa-
ration: 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 sup-
porting relationship between socioeconomic disad-
antage and food-related health conditions such as obesity, diabetes, and osteoporosis; ex-
ploration of plausible pathways from perspectives of multi-
disciplines (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 for improving social capital and health. Discussion of examples of local and international ef-
fors to improve access to healthy foods and/or limit access to unhealthy foods. Exploration of methods for assessing social capital and food-related aspects of neighborhood environments. S/U or letter grading.
225. Writing for Publication in Public Health. (4). Seminar, four hours. Requisites: course 219, two graduate biostatistics courses, one graduate epidemiology course, and skills at graduate level for advanced and doctoral students in producing peer-review-quality research papers, with focus on theoretically informed empirical research papers. Examination of other types of manuscripts (e.g., reviews) included. Letter grading.


229. Policy and Public Health Approaches to Violence Prevention. (4). Lecture, four hours. How policies relate to violence and development of skills to transmit this knowledge. Examination of wide range of policy topics and how each might be associated with reduction/increase in violence/violent injury. Letter grading.

230. Family and Sexual Violence. (4). Lecture, three hours; community, three to four hours. Examination of rape, incest, spousal abuse, and elder abuse. Presentation 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.


M232. Determinants of Health. (4). (Same as Health Policy M242.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.


M234. Obesity, Physical Activity, and Nutrition Seminar. (4). (Same as Health Policy M255.) Seminar, three hours; outside study, one hour. Designed for graduate students. Interdisciplinary 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.

235. Influence of Social and Physical Environment on Racial Health Disparities. (4). Seminar, three hours. Preparation: at least one biostatistics or epidemiology course, and a graduate statistics course. Examination of how community stressors and neighborhood resources may contribute to health disparities. Discussion of multiple factors that contribute to environmental injustice and their potential solutions. Do health disparities arise because minorities and low-income populations live in harmful environments? Is relationship between environment and health disparities mediated by biological, cultural, or physical hazards, or are there psychosocial mechanisms at community level that act above or beyond effects of physical environment? Letter grading.

236. Managing Drug Abuse from Public Health Perspective. (4). Lecture, four hours. Exploration of numerous areas of public health impacted by drug use; public health options for controlling associated problems; positive and problematic aspects of drug use in terms of costs and benefits; variety of information resources such as scientific literature, surveys, in institutional databases, key indicators, key informants, and expert opinions; and use and application of specific decision-tools such as decision tree analyses, benefit-risk analyses, Delphi panels or other consensus-building approaches, and basic epidemic models when developing public health policies having to do with substance use and misuse. Letter grading.

M237. International Paradigms of Prevention: Interventions in Early Childhood. (4). (Same as Health Policy M290.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood intervention as prevention against adverse health and developmental outcomes. Concepts of developmental vulnerability, approaches to assessment, models of service delivery, evaluation and cost-benefit analyses, funding, and other policy issues. Letter grading.

238. Evolving Paradigms of Prevention: Interventions in Adolescence. (4). Seminar, three hours. Adolescent health and interventions, with focus on sex, alcohol, and drug use. What is normative during this period, what is not, what is associated with these behaviors (e.g., peer influence), and how these behaviors may affect youth during this developmental period (e.g., changes in brain). How to intervene with youth in community-based settings. Building of skills to work with adolescent populations. Several practitioners in field to be guest lecturers. Letter grading.

M239. Race, Ethnicity, and Culture as Concepts in Public Health. (4). (Same as American Studies M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to facilitate culturally based public health programs and train culturally competent practitioners. Letter grading.

240. Child and Reproductive Health in Communities Worldwide: The Environmental Perspective. (4). Lecture, three hours. Recommended requisites: course 100, Epidemiology 100. Limited to graduate students. Examination of global issues of child and reproductive health in relation to environmental factors in interplay with socioeconomic and biological factors. Environmental influences are responsible for one quarter of total burden of disease worldwide, and for more than one third of burden among children—most of them living in resource-poor countries and communities. Discussion of impacts of qualitatively different, and potentially modifiable, factors such as access to safe water and sanitation/environmental contribution to high-burden outcomes in childhood and reproduction. Focus on lower income settings and discussion of relevant population-based approaches to assessment and intervention. Letter grading.

M244. Advanced Seminar: Medical Anthropology. (2-4). (Same as Anthropology M263Q, Nursing M273, and Psychiatry M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.


246. Women’s Roles and Family Health. (4). Lecture, two hours; discussion, one hour. Rapidly changing roles of women throughout world are having important effects on women’s own health and that of their families. Interdisciplinary research from both developing and industrialized countries to provide basis for in-depth discussion of programmatic and policy implications. Letter grading.


248. Women’s Mental Health. (4). Discussion, three hours. Designed for graduate students. Prevalence of psychological distress and mental health disorders among women, with emphasis on impact of social and cultural factors, including gender roles and socialization, stratification and inequality, work and family roles, diagnosis, help-seeking behavior, and treatment. Letter grading.

M249L. Ethical Theory and Applications in Public Health. (4). (Same as Health Policy M285.) Lecture, four hours. Requisites: Health Policy 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to enhance professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M250. HIV/AIDS and Culture in Latin America. (4). Lecture, two hours. Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS, and their responses in Latin American Public health context, including epidemiology, morbidity concerns and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/economic context addressing poverty and structural violence. Letter grading.

M251. Nutritional Epidemiology I. (4). (Same as Epidemiology M254.) Lecture, two hours; discussion/labatory exercise, one hour; preparatory reading. Introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic principles and methods. Application of methods employed in food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to health and disease outcomes. S/U or letter grading.


M256. Interdisciplinary Response to Infectious Disease Emergencies: Public Health Perspective. (4). (Same as Epidemiology M236A, Biology M256.) Lecture, two hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bio-terrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Law, Medicine, Nursing during weeks two through five. Letter grading.

258. Cooperative Interagency Management in Disasters. (4.) Lecture, four hours. Requisite: course 295. Designed for graduate students. Broad overview of how different agencies involved in disaster responses work together to handle impact of mass population evacuation. Identification of roles of local, state, and federal governments, nonprofit and private sector organizations, media, and healthcare facilities in disaster situations. Students meet with representatives of different agencies involved in disaster responses and visit one of area’s state-of-art emergency management operations facilities. Letter grading.


265. Images of Aging and Illness. (4.) Lecture, three hours. Designed for graduate students. Images of aged that students hold, images that serve various professional and commercial interests in society, and images aged themselves hold, to make sense out of their experiences. 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 foundation doctoral students. In-depth analysis of theories, methods, and research on which community health sciences is based. Letter grading.


272. Social Epidemiology. (4.) (Same as Epidemiology M272.) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyle and other sociocultural factors associated with general susceptibility to disease. Lecture grading.

273. Social Epidemiology of Chronic Disease. (4.) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of chronic diseases. Topics include hypertension, coronary heart disease, and cancer. Emphasis on lifestyles and other sociocultural factors associated with chronic diseases. Letter grading.


275. Health and Illness Behavior. (4.) (Same as Sociology M204B.) Seminar, three hours. Designed for graduate students. Seminar discussion based on student responses to readings on medicalization, health promotion as moral enterprise and consumerism, and preoccupation with body. S/U or letter grading.


277. Advanced Community Health Education. (4.) Lecture, two hours; discussion, two hours. Requisite: course 210. Before proceeding, educational components of health program, one must assess behaviors and factors influencing health problem. Conceptual, theoretical, and evaluative 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 course, gradic epi- demiology. 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.

281. Capstone Seminar: Health Promotion and Education. (4.) Seminar, three hours; discussion, 90 minutes. Requisite: course 210. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from pressing issues, discussion of master's project reports completed under faculty supervision. Letter grading.

282. Social Marketing for Health Promotion and Communication. (4.) Seminar, three hours; discussion, one hour. Requisite: course 210. Planning, creating, implementation, and evaluation of comprehensive health communication 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 campaigns, critical assessment of existing campaigns. Letter grading.

283. Evidence-Based Health Promotion Programs for Older Adults. (4.) Seminar, three hours. Requisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4.) Discussion, three hours. Designed for graduate students. Examination of 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.

285. Aging, Health, and Society. (4.) Lecture, three hours; discussion, one hour. General introduction to major social issues affecting health of elderly in America. Leading gerontological theories and major issues that affect aged, showing how those theories and issues influence health status, health promotion, and illness among elderly. S/U or letter grading.

288. Drug Abuse in Pregnancy: Special Focus on Adolescents and Young Adults. (4.) Lecture, three hours; discussion, one hour. Requisites: course 210 or prior social sciences courses. Media utilization, media effects, media content, media advocacy, media literacy, health journalism, video and audio storytelling techniques, new media, entertainment education, and transmedia. Competencies: media content analysis, production (blogs, journalism), creating and evaluating effective communications using popular media. Letter grading.

291. Health Policy and Aged. (4.) Lecture, three hours; discussion, one hour. Examination of political, economic, and cultural forces that influence health policy for aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Information Technology for Health Promotion and Communication. (4.) Lecture, three hours; field practice, one hour. Requisites: course 210 or prior social sciences courses. Health literacy, Internet use and information search, new media, social marketing principles and techniques, health education, and use of 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 (1 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. Requisites: courses 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors that influence both transmission and prevention of HIV/AIDS throughout world. Lecture grading.

295. Overview of Emergency Public Health. (4.) Lecture, four hours. Designed for graduate students. Overview of issues involved in disaster preparedness and response for public health agencies, Introduction to theoretical and practice aspects of field of emer-
gency public health. Examination of disaster cycle and various natural and human-induced hazards from public health perspective. Letter grading.

298. Mental Health Topics in Community Health Sciences. (2 to 4). Discussion, two to four hours. Advanced study and analysis of current topics in community health sciences. Discussion of current research and future trends in research specialty of faculty member teaching course. May be repeated for credit. S/U or letter grading.

M299. Intervention to Reduce HIV and Its Consequences. (4). (Same as Psychiatry M289.) Lecture, three hours; discussion, one hour. Examination of interventions to reduce HIV/AIDS transmission. Review of theory and research supporting efficacy of HIV interventions for variety of high-risk populations. 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. Field Studies in Public Health. (2 or 4). Fieldwork, to be arranged. Field observation and studies in selected organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.P.H. course requirement; 4 units may be applied toward 60-unit minimum total required for M.P.H. degree. Letter grading.

401. Measuring Sensitive Topics. (4). Lecture, two hours; discussion, two hours. Limited to School of Public Health doctoral students. Data collection methods and designs and how to think analytically about them, ethics in measurement of sensitive topics, review of current best practices in measuring important matters in new areas. Letter grading.

M406. Preparing for Smallpox or Other Bioterrorist Events. (2). (Same as Epidemiology M406.) Lecture, two hours. Major current public health issue is mass effort to prepare for possible bioterrorist events. Practical application of principles of epidemiology and public health in preparing for smallpox or other bioterrorist events. Letter grading.

M411. Issues in Cancer Prevention and Control. (4). (Same as Health Policy M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer epidemic, cancer control goals for nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

M418. Rapid Epidemiologic Surveys in Developing Countries. (4). (Same as Epidemiology M418.) Lecture, two hours; discussion, two hours. Examination of interventions to reduce HIV/AIDS transmission. Review of theory and research supporting efficacy of HIV interventions for variety of high-risk populations. Letter grading.

M420. Reproductive Health: Demographic Application. (4). Seminar, two hours. Designed for graduate students. Examination of foundations of reproductive health from medical perspective, with particular attention to implications for public health programs, health services, and policy. Topics include anatomy and physiology of male and female reproductive health tracts, methods of birth control, medical and surgical abortion, infertility, maternal care, and sexual violence and trauma. S/U or letter grading.

M433. Reproductive Health: Demographic Application. (4). Lecture, four hours. Introductory aspects of population dynamics; reproductive biology (male and female); contraceptive methods; fertility-related behaviors; STDs; methods to measure contraceptive (life tables) and program (evaluation) effectiveness. Letter grading.

426. School-Linked Services: Integrated Health, Education, and Social Services for Children in Communities. (4). Seminar, three hours; fieldwork, one hour. Examination of school services in context of other dramatic changes, scope of problems facing youth, roles that schools may serve as organizers/delivery sites for comprehensive services; local, state, federal and international issues affecting development of appropriate school service models. Letter grading.

427. Reproductive Health in Sub-Saharan Africa. (4). Lecture, three hours. Preparation: requisite: course 247. In-depth understanding of reproductive health challenges facing sub-Saharan Africa and main programs designed to address them. Topics include family planning, STDs, abortion, HIV/AIDS, and refugees. Letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2). (Same as Health Policy M428.) Seminar, two hours. Designed for graduate students. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.

M436A-M436B. Child Health, Programs, and Policies. (4-4). (Same as Health Policy M449A-M449B.) Lecture, four hours. Requirements: Health Policy 100. Course M436A is requisite to M436B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.

437. Principles and Practice of Preventive Medicine. (4). Lecture, two hours; discussion, two hours. Major current public health issue is mass effort to prepare for possible bioterrorist events. Practical application of principles of epidemiology and public health in preparing for smallpox or other bioterrorist events. Letter grading.

447. Nutrition Education and Training: Third World Considerations. (4). Lecture, two hours; discussion, one hour; student participation, one hour. Preparation: course 434A. Problems and priorities in nutrition education and training for families and health workers in Third World countries, including new concepts in primary healthcare services, mass media, communication, and governmental and international interventions. S/U or letter grading.

448. Anthropometric and Dietary Aspects of Nutritional Assessment. (4). Lecture, two hours; laboratory, two hours. Preparation: course 443. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and analysis, and presentation. Letter grading.

449. Nutrition Education and Training: Third World Considerations. (4). Lecture, two hours; discussion, one hour; student participation, one hour. Preparation: course 434A. Problems and priorities in nutrition education and training for families and health workers in Third World countries, including new concepts in primary healthcare services, mass media, communication, and governmental and international interventions. S/U or letter grading.

447. Health and Social Context in Middle East. (4). Lecture, four hours. Preparation: backgrounds in Islamic or Middle Eastern studies. Examination of current topics in Middle Eastern countries. Phases include community needs identification; goal setting; budget and work plan development; funding; staffing; evaluation design; data and cost analysis; and project presentation. Letter grading.

444. Anthropometric and Dietary Aspects of Nutritional Assessment. (4). Lecture, two hours; laboratory, two hours. Preparation: course 443. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and analysis, and presentation. Letter grading.

434A. Maternal and Child Health in Developing Areas. (4). Lecture, four hours. Preparation: course 231. Major health problems of mothers and children in developing areas, with emphasis on prenatal care, maternal and child health. Letter grading.

445. Community Health Sciences / 249

Community Health Sciences / 249
Undergraduate Study

Comparative Literature B.A.

Preparation for the Major

Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower division course in another department may be substituted for one of the courses), (2) completion of the College Writing requirement, and (3) literary proficiency in at least one language other than English, to be demonstrated by admission into one upper division literature course in the original language.

Transfer Students

Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language.

Refer to the UCLA Transfer Admissions Guide at http://www.admissions.ucla.edu/prospect/adm/trans.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197, (2) three upper division literature courses using original language texts in the primary language area, and (3) two upper division literature courses using original language texts in the secondary language area (students may petition the undergraduate adviser to take two upper division literature courses in translation if their primary language area is in a language other than English).

Honors Program

The honors program is open to Comparative Literature majors with a 3.5 departmental and a 3.25 overall grade-point average. Eligible interested students should contact the undergraduate adviser to enter the program.

Honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper division comparative literature courses. Candidates must also complete a fourth course in the primary literature area and Comparative Literature 198 with a core faculty member in which they write a senior honors paper of approximately 25 pages.

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.

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 file a petition with either the faculty or staff undergraduate adviser, 350B Humanities Building, (310) 825-7650.

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). 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Comparative Literature offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Comparative Literature.

Comparative Literature

Lower Division Courses

1A. World Literature: Antiquity to Middle Ages. (5). Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts from Antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Cervantes, Shakespeare, Calderon, Moliere, and Racine. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (5). Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2B or 4BW. Study of major texts in world literature, with emphasis on Western civilization. Texts include works and authors such as Chaucer’s Canterbury Tales, Dante’s Divine Comedy, Boccaccio’s Decameron, Cervantes’ Don Quixote, Shakespeare, Calderon, Moliere, and Racine. 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, Ibsen, Strindberg, M. Shelley, 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 only on canon of Western literature. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. 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 3H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 4AW. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Ma Sien-France, Tristan and Isolde, 1001 Nights, Popul Vuh. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5). Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Cervantes, Marguerite de Navarre, Shakespeare, Calderon, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (5). Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 4CW. Study of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, M. Shelley, Dostoevsky, Kafka, James Joyce, Garcia Marquez, and Jamaica Kincaid. 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 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. Satisfies Writing II requirement. Letter grading.

4AW. Literature and Writing: Antiquity to Middle Ages. (5). Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 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 Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.
4BW. Literature and Writing: Middle Ages to 17th Century. (5), Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language for credit, 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 and authors such as Chaucer, Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare, 1001 Nights, Christine de Pizan, Proust, Melville, and Racine. Satisfies Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to 20th Century. (5), Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language for credit, students with credit for course 1D or 2DW. Study and discussion of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. Texts may include works by authors such as Ngugi, Desai, Kincaid, Emecheta, El Saidawli, Achebe, Pak, Can Xue, Neruda, and Rushdie. Satisfies Writing II requirement. Letter grading.

4DW. Literature and Writing: Great Books from World at Large. (5), Discussion, four hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language for credit, students with credit for course 1D or 2DW. Study and discussion of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. Texts may include works by authors such as Ngugi, Desai, Kincaid, Emecheta, El Saidawli, Achebe, Pak, Can Xue, Neruda, and Rushdie. Satisfies Writing II requirement. Letter grading.

Upper Division Courses

100. Introduction to Literary and Critical Theory. (5), Lecture, four hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Requisites: two courses from Comparative Literature 1 or 2 series or English 10 or Spanish 60 series, etc. Seminar-style introduction to discipline of comparative literature presented through series of texts illustrating its formation and practice. Letter grading.


102. Classical Tradition: Epic. (4), Seminar, three hours. Designed for upper division literature majors. Analysis of Iliad, Odyssey, Aeneid, Germania, Liberryta, and Paradise Lost both in relation to their contemporary societies and to literary traditions. Emphasis on how poets build on work of their predecessors. P/NP or letter grading.

103. People on Run: Migrants, Minorities, and Multiculturalism in Europe. (4), Seminar, three hours. Problem of migrants and refugees in ongoing crisis of European Union. Examination of contemporary crisis of European Union and of European multiculturalism in particular. Overview of history of European integration since World War II, as well as more focused examination of ways in which culture and migration have come to define and influence the future of European Union. Today’s migrants have already been conceived of as one economic union. Offered in summer only. P/NP or letter grading.

C105. Comic Vision. (4), Lecture, three hours. Designed for upper division literature majors. Literary masterpieces that are comic or satiric, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C205. Undergraduate students read all works in translation. P/NP or letter grading.

106. Archetypal Heroes in Literature. (4), Seminar, three hours. Designed for juniors/seniors. Survey and analysis of function and appearance of such archetypes in literature, myth, film, theater, and opera. For example, Odysseus and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

108. Autobiography in Francophone and Anglophone Worlds. (5), Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use autobiographical mode to situate self in relation to history of family members. Introduction to theories of subjectivity and to genre of self-writing in France, Africa, and Caribbean. Comparison of serial autobiographies of Assia Djebar, Nadia Murad Biga, Amin Maalouf with works of male authors. Also will study Mo- understand limits of genre. Texts represent different limit cases of autobiography and can be read as biography, autobiography, and auto/historiography. Examination of differences that emerge between autobiographical pact (Lejeune) that some authors create with their readers and liberties that others take with history. Attention to way visual culture (painting, photography, film) helps authors realize their point, access memory, or create metaphors of self. P/NP or letter grading.

M110. Thousand and One Nights/Aif Layla Wa-Layla. (4), Same as Arabic M110). Lecture, three hours. Designed for juniors/seniors. Medieval tales of Arabian Nights and their appearance in European in 1704, Thousand and One Nights is most well-known work of Arabic literature in West. Examination of cycle of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western readings of Shahnameh. Read in music, film, Gunther, and Disney. P/NP or letter grading.

111. Histories and Methodologies of Comparative Literature. (5), Seminar, four hours. Designed for upper division literature majors. Broad survey of comparative literature discipline and variety of central methodological past and present debates concerning nature of discipline. Introduction to several key theoretical texts from early 20th century to present, addressing these and other related questions: what does it mean to read comparatively? What is significance of reading literature across national, cultural, linguistic, and temporal boundaries? What are criteria for conducting such comparative readings? Is comparative reading more concerned with finding similarities or differences? P/NP or letter grading.

M119. Al-Andalus: Literature of Islamic Spain. (4), Same as Arabic M115). Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Arabic and Jewish cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

C122. Renaissance Drama. (4), Lecture, three hours. Designed for upper division literature majors. Broad introduction to subject matter and types of plays in Renaissance, with consideration of historical and literary influences on plays. Readings includes works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students read all works in translation. P/NP or letter grading.

M123. Oral Literature and Performance of Arab World. (Same as Arabic 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. May be concurrently scheduled with course C222. Undergraduate students read all works in translation. P/NP or letter grading.


M148. Contemporary Arab Film and Song. (4). (Same as Arabic M148). Seminar, three hours. Exploration of intersections between Arab film and song and between popular cultures and cultures of commitment (lititzam), with possible focus on specific genres such as realist/neorealist Arab film; formation of Arab film and song; topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. Possible examination of various national cinemas, such as Egyptian, Moroccan, Algerian, and Palestinian. Various musical genres such as Rai, Mizoued, and Hip-hop also examined in relation to emergence not only of national cinemas, national music industries, and iconic singers but also of video clip, satellite, TV, star academy, and reality shows—all products of transnational and pan-Arab mass media. P/NP or letter grading.

C152. Symbolism and Decadence. (5), Seminar, four hours. Designed for upper division literature majors. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Rimsky-Korsakov, and Rilke. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/NP or letter grading.

M153. Post-Symbolist Poetry and Poetics. (5), Seminar, four hours. Designed for upper division literature majors. Study of specific poets and poetic relations to them during first half of 20th century. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, F.M.asan, and Wallace Stevens. May be concurrently scheduled with course C253. Undergraduate students may read all works in translation. P/NP or letter grading.


C156. Fantastic Fictions. (4), Seminar, three hours. Designed for upper division literature majors. Time and again in modern literature, corpses become conduits for catalysts of revolution and catalysts of change. May be concurrently scheduled with course C256. Undergraduate students read all works in translation. P/NP or letter grading.

160. Literature and Visual Arts. (4). Lecture, three hours. Designed for upper division literature majors. Artistic value of literature frequently cannot put to rest, and what is their connection to national history or nation language or narrative? Readings from James Joyce, John Bar- ville, Henry James, Toni Morrison, Adolfo Bioy Casares, Juan Carlos Onetti, Juan Rulfo, and Carlos Fuentes, with films by Alejandro Amenabar, Andrei Tarkovsky, and Keri Mizoguchi. May be concurrently scheduled with course C256. Undergraduate students read all works in translation. P/NP or letter grading.

C161. Fiction and History. (4), Seminar, three hours. Designed for upper division literature majors. Interdisciplinary analysis of use of historical events, situations, and characters in literary works of Renaissance and/or modern period. Texts and individual assignments range from Re-
naissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by authors such as Stendhal, Verga, Tomasi di Lampedusa, Carpentier, and Kundera. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors’ choice and use of historical materials. Students will concurrently scheduled with course C261. P/NP or letter grading.

M162. Israel Seen through Its Literature. (4). (Same as Jewish Studies 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.

C163. Crisis of Consciousness in Modern Literature. (5). Seminar, three hours. Designed for upper division literature majors. Study of modern European and American works that are concerned both in subject matter and artistic methods with growing self-consciousness of human beings and their society, with focus on works of Kafka, Fikre, Woof, Sartre, and Stevens. May be concurrently scheduled with course C263. Undergraduate students may read all works in translation. P/NP or letter grading.

C164. Modern European Novel. (5). Seminar, three hours. Designed for upper division literature majors. Study of modern European novel’s development from 19th- and 20th-century authors such as Hardy, Strindberg, Lagerkvist, Gide, Proust, Musil, Kafka, Woof, Nabokov, Grass, Christa Wolf, and Enquist to focus on development of themes such as shifting authority, gender conflicts, change versus stability, exoticism, and representation, and self-consciousness in narrative. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation but are encouraged to read in original language whenever possible. P/NP or letter grading.

M165. Holocaust in Literature. (4). (Same as Jewish Studies M187.) Lecture, three hours. Investigation of how Holocaust informs a variety of literary and cinematic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

M166. Modern Jewish Literature in English: Diaspora Literature. (4). (Same as Jewish Studies M151A.) Lecture, three hours. Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analyzes formal aspects of each work. P/NP or letter grading.

M167. Modern Arabic Literature in English. (4). (Same as Arabic M151.) Lecture, three hours. Designed for upper division literature majors. Topics include structures of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrativity, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, exoticism, translation, and marketing. Genres may include prison narratives; 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 on Arab Israeli literature. Includes study of Egypt, Palestine, Lebanon, Syria, Jordan, Iraq, and Iran. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

169. Continental African Authors. (4). Lecture, three hours. Study from 1A, 1B, 2A, 2B, 2CW, or English Composition 3 or 3H. Introductions to new set of African authors and attempt to discuss similarities or differences they may have with major authors such as Achebe, Ngugi, Amiri Baraka, Soyinka, etc. P/NP or letter grading.

CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5). (Formerly numbered M170.) (Same as Gender Studies CM170.) Seminar, three hours. Designed for upper division literature majors. Investigation 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 CM270. P/NP or letter grading.

M171. Chinese Immigrant Literature and Film. (4). (Same as Asian American Studies M130B and Chinese M153.) Lecture, three hours; discussion, one hour. Examination of Chinese-American works 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. Concurrently scheduled with course C272. Undergraduate students read all works in translation. P/NP or letter grading.

M175. Race, Gender, Class. (5). (Same as Asian American Studies M165.) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, and 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.

M176. Literature and Technology. (4). (Same as Japanese M176.) Seminar, three hours. Focus on issues in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.

177. Comparative Literature of Francophone and Anglophone Caribbean. (5). Seminar, three hours. Designed for juniors/seniors. Introduction to literature and culture of Caribbean basin from New Orleans to Haiti, Martinique, Guadeloupe, Jamaica, Antigua, or Trinidad. Topics include history of French and English colonial influences and rivalries, Haitian revolution and its literary legacies, emergence of nationalist discourses, courses of colonial development, adherence of the French to West African culture, and representation of African experience in U.S. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.

C178. India ink: Literature and Culture of Modern South Asia. (5). Seminar, three hours. Survey of significant issues in literature of modern Indian culture and life, focusing on modern Indian culture by means of texts by Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Ananthapuri Murthy, including novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and material changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from British rule and changes in national political thought, as expressed in literature by Mahatma Gandhi and leaders of the Indian National Congress. Concurrently scheduled with course C271. P/NP or letter grading.

C187. Reading across Culture. (5). Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs not our own? How is this task mediated or informed by our own culture? How do 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 those of our own cultural tradition? Cultural interpretations have long history across both Western and non-Western cultures. Discussion of history of questions about cross-cultural interpretation and comparative literary criticism, focusing on comparative literature and cultural anthropology. Reading of some very complex and influential works by such writers as Claude Lévi-Strauss, Amitav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C287. P/NP or letter grading.

190. Research Colloquia in Comparative Literature. (2). Seminar, three 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 or letter grading.

191. Variable Topics in Comparative Literature. (4). Seminar, three hours. Designed for juniors/seniors. Study and discussion of semester topics. Emphasis on special issues and approaches in literary theory, especially in relation to other modes of discourse such as history, philosophy, psychology, linguistics, anthropology. Development of culminating project required. 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.

197. Individual Studies in Comparative Literature. (2 to 4). Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Comparative Literature. (4). Tutorial, three hours. Designed for junior or senior comparative literature honors students. Development and completion of honors thesis or comprehensive project on comparative topic selected by student and written under direction of core faculty member. Students expected to meet regularly with supervisor throughout term. No more than one course may be used to fulfill four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Comparative Literature. (2 to 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 with consent of tutor. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Theory of Comparative Literature. (6). Seminar, three hours. Study of theory of literature, with emphasis on methodology and textual criticism. P/U or letter grading.


202. Classical Tradition: Epic, Tragedy, or Comedy. (4). Seminar, three hours. Preparation: reading knowledge of Greek, Latin, or Italian. Analysis of Greek and Roman works and their re-creations in Renaissance and modern periods. Emphasis on how poets build on work of their predecessors. Reading may range from Iliad or Odyssey to tragedies by Sophocles and Euphorion or satires by Aristophanes. S/U or letter grading.

C205. Comic Vision. (4). Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Literary masterpieces, both dramatic and non-dramatic, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C105. Graduate students required to prepare papers based on texts read in original languages and to present group one additional hour each week. S/U or letter grading.

206. Archetypal Heroes in Literature. (4). Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of function and appearance of such archetypal heroes
as Achiles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.

210. Comparative Studies in Autobiography. (5). Seminar, three hours. Limited to graduate students. Introduction to theories of autobiography and subjectivity and to genre of autobiography in literatures in French and English and across centuries. Topics include early modern approaches to self-writing, Rousseau and emergence of modern self, women's autobiography, postcolonial autobiography, cultural studies and turn toward self-representation, serial autobiography, and virtual selves. Theorists may include Georges Gusdorf, Philippe Lejeune, Paul de Man, Jacques Derrida, Helene Cixous, Michel Foucault, Pierre Bourdieu, and Toril Moi. S/U or letter grading.

C222. Renaissance Drama. (4). Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Broad introduction to subject matter and types of plays in Renaissance, with consideration of historical and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C122. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

M251. Literatures and Cultures of Maghreb. (4). (Same as Arabic M255.) Seminar, three hours. Limited to graduate students. Examination 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 nationalities, Third-Worldism and economic development, reform from modernization, immigration and citizenship, soccer industry and Rai music, mass media and Star Academy Maghreb, and more. Readings of literatures in English and in English translations of literatures in Arabic languages (partially Arabic and French) in conjunction with theories of language and linguistic pluralism, cultural translation, deconstruction, and host of other related theories of gender, globalization, and postcolonial cultural studies. S/U or letter grading.

C252. Symbolism and Decadence. (5). Seminar, four hours. Preparation: reading knowledge of French. Study of symbolist and decadent movements in 19th- and 20th-century 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 and may meet as group one additional hour each week. S/U or letter grading.

C253. Post-Symbolist Poetry and Poetics. (5). Seminar, four hours. Study of specific poets and poetics related to them during first half of 20th century. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as group one additional hour each week. S/U or letter grading.

C256. Fantastic Fictions. (4). Seminar, three hours. Time and again in modern literature, corpses become conduits or catalysts for revelation. What are ghosts that fiction frequently cannot put to rest, and what is their connection to the notion of national or national narrative? Readings from James Joyce, John Banville, Henry James, Toni Morrison, Adolfo Bioy Casares, Juan Carlos Onetti, Juan Rulfo, and Carlos Fuentes, among others. Includes American, Argentine, Russian, Tarkovsky, and Kenji Mizoguchi. May be concurrently scheduled with course C156. Graduate students have additional meetings and theoretical readings by Benjamín, Frei Betto, Alain Rabate, Rickels, and Caruth. S/U or letter grading.

C260. Literature and Visual Arts. (4). Lecture, three hours. Knowledge of art history valuable but not required. Assuming that literature and visual arts are in some degree expressions of cultural and philosophical patterns of eras, study of relationships between writers and movements in painting, architecture, and sculpture, and development of interplay of similarities 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 read works in original languages. S/U or letter grading.

C261. Fiction and History. (4). Seminar, three hours. Analysis of ways in which narrative fiction is, and has been, used to address historical 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 (iltsam) to fundamental concerns of Arab world, to responsible rhetoric and poetics within contexts of profound asymmetries of power, temporariness, and actualities. S/U or letter grading.

CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5). (Same as Gender Studies CM270.) Seminar, four hours. Designed for graduate students. Study of specific poets and poetics related to them during first half of 20th century. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as group one additional hour each week. S/U or letter grading.

C272. Postmodern Novel. (4). Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course C172. Graduate students required to meet as group one additional hour each week. S/U or letter grading.

C274. Theorizing Third World. (4). (Same as Asian American Studies M274.) Seminar, three hours. Investigation of politics of power, gender, and identity in Third World, including relations between First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


C276. Reading Modern Bodies. (4). (Same as Japanese M276.) Seminar, three hours. Designed for graduate students. Exploration of construction of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locales, with particular emphasis on Japan. S/U or letter grading.

C277. Caribbean Literature from Negritude to Diaspora. (4). Seminar, three hours. Historical approach to modern Anglophone and Francophone Caribbean literature, retracing search for identity beginning with negritude movement's claim to Africa as expressed in Aimé Césaire's classic poem Cahier d'un retour au pays natal and ending with consideration of dispersion of identities in work of writers and intellectuals who contend with problem of diasporic Caribbean culture. S/U or letter grading.

C278. India Ink: Literature and Culture of Modern South Asia. (5). Seminar, three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Great works of modern Indian culture such as figures such as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, including novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture: emergence of India as an expansive cultural and material changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, including struggle for national independence from Britain under leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C178. S/U or letter grading.

C279. Subaltern Studies: Colonial Histories and Cultural Critique. (5). Seminar, three hours. Examination of certain links between practice of cultural criticism and problems in historiography of colonial and postcolonial societies. Use of key texts by members of Subaltern Studies collective 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 metropolitan bourgeoisie to indigenous one? S/U or letter grading.


282. Three approaches to likely coexistence in Arab cultural material—literary, critical, philosophical, artistic. Techniques students need to render scholarly presentation of student work for discussion. Opportunity for students to determine whether they have desire and talent to pursue literary translation as part of their professional education. S/U or letter grading.

283. Workshop: Science, Technology, and Society. (4). Seminar, three hours; tutorial, one hour. Preparation: solid reading knowledge of at least one foreign language. Designed for graduate social sciences students. Prerequisites: students need to render scholarly texts in their fields from language they use in their research into English and to advance their knowledge of language to stage where they can use it more effectively in all aspects of their research, as well as advantage of translation techniques they have learned. S/U or letter grading.

285. Translation Workshop. (4). Seminar, three hours. Preparation: solid reading knowledge of at least one foreign language. Open to qualified undergraduates with proper language preparation. Introduction to principles of literary translation heuristically, that is, on basis of texts participating students translate, and presentation for discussion. Opportunity for students to determine whether they have desire and talent to pursue literary translation as part of their professional education. S/U or letter grading.

287. Reading across Culture. (5). Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by standing apart? Does ability to understand something foreign imply taking universal standpoints? Can we make judgments about values other than our own? Questions of cultural interpretation have long history in both Western and non-Western cultures. Discussion of history of questions about interpretation and cross-cultural interpretation of cultures in both comparative literature and cultural anthropology. Reading of some very complex and influential works by such writers as Claude Levi-Strauss, Amitav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently 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 political Islam after collapse of ideology of secular nationalism and failure of Arab left to apprehend exigencies of postrevolution/postcolonial moment, little has been devoted to less sensational topic of modern Arab thought despite unmistakable proliferation of critical work by Arab thinkers and artists in aftermath of 1967. Course addresses and redresses this glaring imbalance by considering new cultural material—literary, critical, philosophical, artistic, and journalistic—produced before and after al-Nahda but mostly before and after 1967 and fosters insightful approaches to unlikely coexistence in Arab contemporary world of ever-deepening and generalized crisis and steady and consolidated development (if not effervescence) of cultural and artistic production. S/U or letter grading.

289. Theory of Film and Literature. (6). Seminar, three hours; film screening, two hours. Study of definition and principles of theories of film and literature. Approaches vary by instructor (e.g., postcoloniality, psychoanalysis, semiotics, transnationalism, gender theory). S/U or letter grading.

290. Interdepartmental Program

Computational and Systems Biology

Interdepartmental Program

College of Letters and Science

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Joseph J. DiStefano III, Ph.D., Chair
Thomas Chou, Ph.D., Vice Chair
Marc A. Suchard, M.D., Ph.D., Vice Chair

Faculty Committee
Christopher R. Anderson, Ph.D. (Mathematics)
Thomas Chou, Ph.D. (Biomatics, Mathematics)
Joseph J. DiStefano III, Ph.D. (Computer Science, Medicine)
Elezar Eskan, Ph.D. (Computer Science, Human Genetics)
Alexander Hoffmann, Ph.D. (Microbiology, Immunology, and Molecular Genetics)
Tetsuya Iwasaki, Ph.D. (Mechanical and Aerospace Engineering)
Elliott M. Landay, M.D., Ph.D. (Biomatics)
Kenneth L. Lange, Ph.D. (Biomatics, Human Genetics)
Matteo Pellegrini, Ph.D. (Molecular, Cell, and Developmental Biology)
Van M. Savage, Ph.D. (Biomatics, Ecology and Evolutionary Biology)
Marc A. Suchard, M.D., Ph.D. (Biomatics, Biostatistics, Human Genetics)
Xinshu Grace Xiao, Ph.D. (Integrative Biology and Physiology)

Scope and Objectives
The major in Computational and Systems Biology is designed primarily for highly motivated undergraduate students interested in interdisciplinary studies in life sciences, behavioral and social sciences, and computer science. 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 foundations in mathematical modeling, information processing, and control and system analysis, with an emphasis on quantitative ideas and methodologies. Mathematical and other analytical skills are essential in the major.

Computational and Systems Biology majors have several options for in-depth studies: a concentration in any one of the five designated concentrations in bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology. The major is appropriate preparation for employment or for graduate studies in any of these areas, with emphasis on interdisciplinary activities. It is also appropriate preparation for professional school studies in dentistry, engineering, management, medicine, and public health.
Undergraduate Study

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a junior-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 research project in computational and systems biology, conceive and execute a research 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 research team. The experience culminates with completion of the senior thesis requirement.

Computational and Systems Biology majors select a coherent integration of courses from one of five designated concentrations: bioinformatics, biomedical systems, computers and biosystems, neurosystems, or systems biology. The synergy for all concentrations is integrative systems, information, and computational systems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multidisciplinary understanding. Each concentration emphasizes different systems or modalities, and modeling or other computational approaches. For students interested in broad options for postgraduate studies in life sciences and related fields of medicine, the systems biology concentration covers the widest spectrum of quantitative systems studies at all levels. The other concentrations are more focused. For example, bioinformatics is more focused on computational aspects of genetics and biology at molecular and cellular levels. Students normally select one, but because the concentrations have substantial methodologic overlap, well-justified combinations are also possible.

The bioinformatics concentration is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data, and the inherent structure of biological information. Example research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, or how regulatory sequences give rise to programs of gene expression, or how the genome encodes the capabilities of the human mind.

The biomedical systems concentration is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data, and the inherent structure of biological information. Example research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, or how regulatory sequences give rise to programs of gene expression, or how the genome encodes the capabilities of the human mind.

Computational and Systems Biology B.S.

Capstone Major

Computational and Systems Biology Premajor

Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology premajor at the time of application are automatically admitted. Current UCLA students need to file a petition with the Undergraduate Advising Office in 4436 Boelter Hall.

All students are identified as premajors until they satisfy the preparation for the major requirements by (1) achieving a minimum 2.7 grade-point average in all premajor mathematics courses, (2) achieving a minimum 2.7 GPA and a minimum grade of C in all premajor courses, and (3) filing a petition to declare the Computational and Systems Biology major.

Preparation for the Major

Required: A minimum of 82 to 94 units (depending on the computer programming course and physics sequence selected), including Chemistry and Biochemistry 20A, 20B, 20L, 30A; Computer Science 31 or Program in Computing 10A; Life Sciences 1, 2, 3, 4; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 115A; Physics 1A, 1B, and 1C, or 1A4H, 1BH, and 1CH.

Students following the bioinformatics or the computer systems concentration must also complete Computer Science 32, or Program in Computing 10B and 10C.

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, one psychology course, and one programming course using C++.

Transfer applicants must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy major requirements, and must have completed one 12-unit term of residence in regular session at UCLA.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Admission to the major is by petition only and is based on successful completion of all preparation for the major courses and requirements (2.7 grade-point average in mathematics, 2.7 GPA overall, and a minimum grade of C in each preparation for the major course).

The major consists of a methodology core of six courses (23 units), a concentration of five upper division courses (20 units minimum), and a two-course capstone research requirement (9 units). Each course in the major must be passed with a grade of C or better.

Methodology Core

Required: (1) Computational and Systems Biology M184, 185, (2) two probability and statistics courses from one of the following groups: (a) Statistics 100A and 100B or (b) Mathematics 170A and Statistics 100B or (c) Electrical Engineering 131A and Statistics 100B, and (3) two signals, systems, and control systems courses: (a) Electrical Engineering 102 and (b) Electrical Engineering 141 or Mechanical and Aerospace Engineering 171A.
Concentrations

**Required:** A minimum of five courses (20 to 30 units) from the concentrations listed below. No 199 course may be applied toward any concentration. An approved list of courses for each concentration is available in the program office and at [http://www.cs.ucla.edu/C&SB/](http://www.cs.ucla.edu/C&SB/).

**Bioinformatics (at least 20 units):** Computer Science CM121, CM124, Molecular, Cell, and Developmental Biology M140 (or 144), 172 (or Physiological Science 125), and one additional course from the bioinformatics approved course list. Note: Computer Science 32, or Program in Computing 10B and 10C are completed in the premajor.

**Biomedical Systems (at least 20 units):** Bioengineering CM102, CM103, Electrical Engineering 103 (or Mathematics 151A), and two additional courses from the biomedical systems approved course list.

**Computers and Biosystems (at least 20 units):** Bioengineering CM102 (or CM103 or Molecular, Cell, and Developmental Biology M140 or 144 or Physiological Science 166), Computer Science 170A (or Electrical Engineering 103 or Mathematics 151A), 180, and two additional courses from the computers and biosystems approved list. Note: Computer Science 32, or Program in Computing 10B and 10C are completed in the premajor.

**Neurosystems (20 units):** Neuroscience M101A, M101B, 102 (or Electrical Engineering 113 or Mathematics 155), and two additional courses from the neurosystems approved list.

**Systems Biology (at least 20 units):** Ecology and Evolutionary Biology 170 (or Physiological Science 166), Molecular, Cell, and Developmental Biology 100 (or 144), 172 (or Physiological Science 125), and two additional courses from the systems biology approved list.

**Capstone Research Requirement**

**Required:** Computational and Systems Biology M186 to be taken in the sophomore or junior year and M187 to be taken in the junior or senior year after completion of course M186.

**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.

**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 and four core courses and one option 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.

To enter the minor, students must (1) 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; (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the administrative office, 4436 Boelter Hall, after appropriate counseling.

**Required Lower Division Courses (8 units):** Mathematics 33A, 33B.

**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 Engineering 102, 113, Statistics 100A, 100B.

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.

**Systems Biology Minor**

The Systems Biology minor introduces undergraduate students to an active interdisciplinary quantitative biosciences research and teaching field at UCLA. It provides a coherent course plan encompassing basic foundations of the field. Beside broadening student knowledge in systems biology, the minor provides 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, and four core courses and one option course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

To enter the minor, students must (1) 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, (2) submit an application essay supporting their interest in pursuing the minor and detailing any projects that they have already undertaken, and (3) file a petition in the administrative office, 4436 Boelter Hall, after appropriate counseling.

**Required Lower Division Courses (8 units):** Mathematics 33A, 33B.

**Required Upper Division Courses (20 units):** Computational and Systems Biology M184, M186, Mathematics 170A or Electrical Engineering 131A or Statistics 100A, Molecular, Cell, and Developmental Biology M140 or 144, Statistics 100B, and one elective course selected from Biomathematics 106, 108, Electrical Engineering 102, Mathematics 134, 136, 171, Molecular, Cell, and Developmental Biology 172, or Physiological Science 125.

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.
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.

Computational and Systems Biology

Upper Division Courses

M184. Introduction to Computational and Systems Biology. (2). (Same as Bioengineering M184 and Computer Science M184.) Lecture, two hours; outside study, four hours. Enforced requisites: one course from Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Life Sciences 2, 3, 4. Introduction to research opportunities in computational and systems biology to prepare students for active engagement in research. Presentation of potential projects by faculty members and student visits to individual laboratories and participation in ongoing projects. P/NP grading.

M186. Computational Systems Biology: Modeling and Simulation Of Biological Systems. (5). (Same as Bioengineering CM186 and Computer Science CM186.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Corequisite: Electrical Engineering 102. Dynamic biosystems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, compartmental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismal levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Letter grading.

M187. Research Communication in Computational and Systems Biology. (2 to 4). (Formerly numbered M186C.) (Same as Bioengineering CM187 and Computer Science CM187.) Lecture, four hours; outside study, eight hours. Requisite: course M186. 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 search for research results. Major emphasis on effective research reporting, both oral and written. Letter grading.

196. Honors Research in Cybernetics. (4). Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

Computer Science

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Fabien Scalzo, Ph.D.

Scope and Objectives

Computer science is concerned with the design, modeling, analysis, and applications of computer-related 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 digital computers and digital systems. The programs provide 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 Bioinformatics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

The B.S. degree may be attained either through the Computer Science and Engineering major or through the Computer Science major described below.

In addition to the B.S. in Computer Science and Engineering and the B.S. in Computer Science, HSSSEAS offers M.S. and Ph.D. degrees in Computer Science, as well as minor fields for graduate students seeking engineering degrees. In cooperation with the John E. Anderson Graduate School of Management, the Computer Science Department offers a concurrent degree program that enables students to obtain the M.S. in Computer Science and the M.B.A. (Master of Business Administration).
Undergraduate Study

The computer science and engineering program is accredited by the Computing Accreditation Commission of the Engineering Accreditation Commission of ABET. See http://www.abet.org.

The computer science program is accredited by the Computing Accreditation Commission of ABET. See http://www.abet.org.

The Computer Science and Engineering and Computer Science majors are designated capstone majors. Computer Science and Engineering students complete a major product design course, while Computer Science students complete either a software engineering or a major product design course. Graduates are expected to apply the basic mathematical and scientific concepts that underlie modern computer science and engineering; design a software or digital hardware system, component, or process to meet desired needs within realistic constraints; function productively with others as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

Computer Science and Engineering B.S.

Capstone Major

The computer science and engineering curriculum at UCLA provides 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 Engineering Departments. Within the curriculum students study all aspects of computer systems from electronic design through logic design, MSI, LSI, and VLSI concepts and device utilization, machine language design, implementation and programming, operating system concepts, systems programming, networking fundamentals, higher-level language skills, and application of these to systems. Students are prepared for employment in a wide spectrum of high-technology industries.

Preparation for the Major

Required: Chemistry and Biochemistry 20A; Computer Science 1, 31, 32, 33, 35L, M51A; Electrical Engineering 10, 11L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181; one course from Civil and Environmental Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A; one capstone software engineering or design course from Computer Science 130 or 152B; 20 units of elective courses selected from Computer Science 111 through CM187 or Electrical Engineering 133A, at least one of which must be Computer Science CM121, CM122, 143, 161, or 174A; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Credit is not allowed for both Computer Science 170A and Electrical Engineering 133A unless at least one of them is applied as part of the technical breadth area. Four units of either Computer Science 194 or 199 may be applied as an elective by petition.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

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 Ph.D. 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.

To enter the minor, students must be (1) in good academic standing (2.0 grade point average or better), (2) have completed at least two of the lower division requirements with minimum grades of C, and (3) file a petition in the Office of Academic and Student Affairs of the Henry Samueli School of Engineering and Applied Science, 6426 Boelter Hall.

Required Lower Division Courses (14 units minimum): Computer Science 32 or Program in Computing 10C, Life Sciences 3, 23L, Mathematics 33A.

Required Upper Division Courses (18 units minimum): Computational and Systems Biology M184 (or Computer Science M184), Computer Science 180 (or Mathematics 182), two courses from Computer Science CM121 (or Chemistry and Biochemistry CM160A) or CM122 (or Chemistry and Biochemistry CM160B) or CM124 (or Human Genetics CM124), and one bioinformatics elective course selected from Computational and Systems Biology M186, Computer Science CM121, CM122, CM124, 170A, Ecology and Evolutionary Biology 135, Electrical Engineering 102, 141, Human Genetics C144, Molecular, Cell, and Developmental Biology 144, 172, Physiological Science 125, Statistics 100A, 100B. Eight units of either Bioinformatics 199 or Computer Science 194 or 199 may be applied as an elective by petition.

Students are strongly encouraged to take Computer Science M184 as early as possible to obtain an overview of computational biology.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

If students complete some of the minor requirements as part of their major program, they can take additional courses from the bioinformatics elective course list.

All minor courses must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall C average. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaaa liberary/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Computer Science offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Computer Science. A concurrent degree program (Computer Science M.S./Management M.B.A.) is also offered.

Bioinformatics
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.

2. Great Ideas in Computer Science. (4).
Lecture, four hours; discussion, two hours; outside study, eight hours. Broad coverage for liberal arts and social sciences students of computer science theory, technology, and implications, including artificial and natural machine intelligence, computability limits, virtual reality, cellular automata, artificial life, programming languages survey, and philosophical and societal implications. P/NP or letter grading.

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, Strings, arrays, pointers. Abstract data types, object-oriented programming. Examples and exercises from computer science theory and applications. Letter grading.

32. Introduction to Computer Science II. (4).

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 interfacing with fundamental systems. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, and loaders. Operating system concepts, process and program management, input/output (I/O) programming, memory management, file systems. Letter grading.

35L. Software Construction Laboratory. (2).
Laboratory, four hours; outside study, two hours. Enforced requisite: course 33. Computer-aided design of computer programs. Emphasis on software development and debugging skills. Letter grading.

51. Introduction to Computing. (2).
Lecture, one to four hours; discussion, zero to two hours. Enforced requisite: course 32 or Program in Computing 10C. Introduction to computer science via computer programming. Focus on algorithms and methodologies for solving computational problems. Letter grading.

(Same as Electrical Engineering M51A.) 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 algorithms in systems: data and control sections. Number systems and arithmetic algorithms. Error correction codes for digital information. Letter grading.

97. Variable Topics in Computer Science. (1 to 4).
Lecture, one to four hours; discussion, zero to two hours. Designed for freshmen/sophomores. Variable topics in computer science not covered in regular computer science courses. May be repeated once for credit with topic or instructor change. Letter grading.

Upper Division Courses
111. Operating Systems Principles. (5).
Lecture, four hours; laboratory, two hours; outside study, nine hours. Enforced requisite: courses 32, 33, 35L. Introduction to operating systems design and evaluation. Computer software systems performance, robustness, and functionality. Kernel structure, bootstrapping, input/output (I/O) devices and interrupts. Processes and threads; address spaces, memory management, and virtual memory. Scheduling, synchronization. File structure, performance, robustness. Distributed systems: networking, remote procedure call (RPC), asynchronous RPC, distributed file systems, transactions, protection and security. Exercises involving both formal models and internals of real-world operating systems. Letter grading.

Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111 and one course from Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Enforced requisite: courses 32, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM221, P/NP or letter grading.

CM121. Introduction to Bioinformatics. (4).
(Same as Chemistry CM160A.) Lecture, four hours; discussion, two hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Credit for course M171L. Introduction to fundamental concepts of systems biology, identification of genes involved in disease, introduction to fundamental principles to analyze biological data. Focus on sequence analysis and alignment algorithms. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with 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 CM221. P/NP or letter grading.

CM122. Algorithms in Bioinformatics and Systems Biology. (Same as Chemistry CM160B.) Lecture, four hours; discussion, two hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM121 is not requisite to CM122. 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 CM222. Letter grading.

(Same as Human Genetics CM160E.) Lecture, discussion, two hours; outside study, six hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational and algorithmic aspects of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, including 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 algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM222. Letter grading.

(Same as Electrical Engineering M117.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Enforced requisite: for credit with course M117L. Introduction to fundamental computer communication concepts underlying and supporting modern networking technologies, including communications and media access layers of network protocol stack. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks (WPAN). Bluetooth, home networking, experimental project based on mobile radio-equipped 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.

Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111. Designed for juniors/seniors. Introduction to design and performance evaluation of computer networks, including such topics as what protocols are, layered network architecture, Internet protocol architecture, network applications, transport protocols, routing algorithms and protocols, internetworking, congestion control, and link layer protocols including Ethernet and wireless channels. Letter grading.

CM121. Introduction to Bioinformatics. (4).
(Same as Chemistry CM160A.) Lecture, four hours; discussion, two hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM221, P/NP or letter grading.

CM122. Algorithms in Bioinformatics and Systems Biology. (Same as Chemistry CM160B.) Lecture, four hours; discussion, two hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM121 is not requisite to CM122. 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 CM222. Letter grading.

(Same as Human Genetics CM160E.) Lecture, discussion, two hours; outside study, six hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational and algorithmic aspects of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, including 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 algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM222. Letter grading.
solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

130. Software Engineering. (4). Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: courses 111, 131. Design and use of programming languages, in-depth study of basic tools. Topics include design and use of programming languages, including functional, object-oriented, and logic programming. Letter grading.

131. Programming Languages. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, 35L. Basic concepts in design and use of programming languages, including abstraction, modularity, control mechanisms, types, expressions, and scoping. Study of several different language paradigms, including functional, object-oriented, and logic programming. Letter grading.


133. Parallel and Distributed Computing. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 111 (may be taken concurrently), 131. Design and use of shared memory and shared memory parallel architectures; asynchronous parallel languages: MPI, Maiss; primitives for parallel computation: specification of parallelism, interprocess communication and synchronization; design of parallel programs for scientific computation and distributed systems. Letter grading.

136. Introduction to Computer Security. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111. Introduction to basic concepts of information security necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include computer systems, architecture, security threats and risk analysis, access control and authentication/authorization, cryptography, network security, social, and technology constraints. Use of design tools. Development and implementation of secure applications and systems. Letter grading.


144. Web Applications. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: 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 requisites: course 180. Introductory survey of data mining (process of automatic discovery of patterns, changes, associations, and anomalies in massive 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.

M151B. Computer Systems Architecture. (4). (Same as Electrical Engineering M116C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, and M51A or Electrical Engineering M16. Recommended: courses 111, and M152A or Electrical 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 subsystems (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.


152B. Digital Design Project Laboratory. (4). Laboratory, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M151B or Electrical Engineering M16. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.


M171L. Data Communication Systems Laboratory. (2 to 4). (Same as Electrical Engineering M117L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M152A. Laboratory exercises and projects with credit for course M117. Introduction to analog-signaling aspects of digital systems and data communications through experience in using contemporary test instruments to generate and display signals in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, desktop computers, terminals, modems, PDAs, and workstations to simulate communications impairments, waveforms and their spectra, modem and terminal characteristics, and interfaces. Letter grading.

174A. Introduction to Computer Graphics. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 123. Basic principles behind modern two- and three-dimensional computer graphics systems, including complete set of steps that modern graphics pipelines use to create realistic images in real time. How to position and manipulate objects in scene using geometric and camera transformations. How to render objects using perspective and orthographic transformations. Basics of modeling primitives such as polygonal models and implicit and parametric surfaces. Basic ideas behind color spaces, illumination models, shading, and texture mapping. Letter grading.

174B. Introduction to Computer Graphics: Three-Dimensional Photography and Rendering. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 174A. State of art in three-dimensional photography and image-based rendering. How to use cameras and light to capture shape and appearance of objects and scenes. Process provides simple way to acquire three-dimensional models of unparalleled detail and realism. Applications of techniques from entertainment (reverse engineering and post-processing 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 modeling and inferring geometric (shape) and photometric (reflectance, illumination) properties of objects and scenes, and for rendering and manipulating them. Letter grading.

C174C. Computer Animation. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 174A. Designed for juniors/seniors. Introduction to computer animation, including basic principles of physics-based animation, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.

180. Introduction to Algorithms and Complexity. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32, and Mathematics 61. Introduction to algorithms, computational complexity, cryptography, computer security, and basic concepts from probability and statistics. Enforced requisite: course 180. Introduction to algorithms and complexity. Selection of typical algorithms; choice of data structures and representations; complexity measures: time, space, upper, lower bounds, asymptotic complexity; NP-completeness. Letter grading.

181. Introduction to Formal Languages and Automata Theory. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 180. Designed for junior/senior Computer Science majors. Introduction to design and analysis of algorithms. Design techniques: divide-and-conquer, greedy methods, dynamic programming; selection of prototypical algorithms; choice of data structures and representations; complexity measures: time, space, upper, lower bounds, asymptotic complexity; NP-completeness. Letter grading.

183. Introduction to Cryptography. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: knowledge of basic probability theory. Enforced requisites: course 180. Introduction to cryptography, computer security, and basic concepts and techniques. Topics include one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, key-agreement, homomorphic encryption, private information retrieval and voting protocols, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, commitment protocols, and two-party secure computation with static security. Letter grading.

M184. Introduction to Computational and Systems Biology. (Same as Bioengineering M184 and Computational and Systems Biology M184.) Lecture, two hours; outside study, six hours. Enforced requisites: one course from 31, Civil Engineering M20, Mechanical and Aerospace Engineering M20, or Program in Computing 10A, 10B, and Mathematics 38B, 31B.
Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing motivation, theory, cultural background, and contributions in computational biosciences and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (4). Formerly numbered CM186B. (Same as Bioengineering CM186 and Computational and Systems Biology M186.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Requisites: course CM186. 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 study methods and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM287. Letter grading.

CM197. Research Communication in Computational and Information Science. (2 to 4). Formerly numbered CM197. (Same as Bioengineering CM187 and Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Requisites: course CM186. Designed for graduate computer science and electrical engineering students as well as students from biological sciences and other disciplines. Topics include: research conventions and writing; preparing for and attending conferences; giving presentations; writing technical reports; oral and written presentations and their delivery. Concurrently scheduled with course CM287. Letter grading.

188. Special Courses in Computer Science. (4). Lecture, four hours; discussion, two hours; outside study, six hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of or research of faculty members or students. May be repeated for credit with topic or instructor change. 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 of or research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Computer Science. (2 to 8). Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual-bid contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201. Computer Science Seminar. (2). Seminar, four hours; outside study, two hours; tutorial. Designed for graduate computer science students. Seminars on current research topics in computer science. May be repeated for credit. S/U grading.

202. Advanced Computer Science Seminar. (4). Seminar, four hours; outside study, eight hours. Preparation: completion of major field examination in computer science. Current computer science research literature and research trends in 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.

211. Networks Protocols and Systems Software Design for Wireless and Mobile Internet. (4). Lecture, four hours; outside study, eight hours. Requisites: course 118. Designed for graduate students. In-depth study of network protocols and systems software design in area of wireless and mobile Internet. Topics include (1) networking fundamentals: design of routing protocols, TCP/IP: end-to-end arguments, and protocol design of TCP/IP: transport, network, and application layer protocols; (2) performance analysis: network design and optimization; network protocols; routing and flow control; battery modeling and control; and (3) protocol validation: network simulation and measurement. Corequisite: Electrical Engineering M212B. Letter grading.


212B. Queueing Applications: Scheduling Algorithms and Queueing Networks. (4). Lecture, four hours; outside study, eight hours. Requisites: course 212A. Priority queues and applications to time-sharing scheduling algorithms: F8, Round Robin, Conservation Law, Bounds. Queueing networks: definitions; flow balance; product form solutions—local balance, M/M/m; computational algorithms for performance measures; asymptotic behavior and bounds; approximate techniques—diffusion—iterative techniques; applications. Letter grading.

213A. Embedded Systems. (4). Same as Electrical Engineering M202A. Lecture, four hours; outside study, eight hours. Requisites: course 111. 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 selection, device driver communication, and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault-tolerance, software debugging, and hardware/software tradeoffs. Theoretical foundations as well as practical design methods. Letter grading.

213B. Energy-Aware Computing and Cyber-Physical Systems. (4). Same as Electrical Engineering M202B. Lecture, four hours; outside study, eight hours. Requisites: course M51A or Electrical Engineering M16. Recommended: courses 111, and M51B or Electrical Engineering M116. System-level management and cross-layer methods for power and energy consumption in computer and communication at various scales ranging across embedded, mobile, personal, distributed control and access in computer networks, satellite packet switching; ground radio packet switching; local networks; commercial network services and architectures. Optional topics: computer and system power control techniques; modems; SDLG, HDLC, X.25, etc.; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

214. Distributed Multiaccess Control in Networks. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 212A, 215. Topics from field of distributed control and access in computer networks, including terrestrial distributed computer networks; satellite packet switching; ground radio packet switching; local network architecture and control. Letter grading.


219. Current Topics in Computer System Modeling Analysis. (4). Lecture, eight hours; outside study, four hours. Review of current literature in area of computer system modeling analysis in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter or S/U grading.

CM211. Introduction to Bioinformatics. (4). (Same as Bioinformatics M260A, Chemistry CM260A, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Enforced requisites: course 32 or Program in Computing 100 with grade of C or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 170A. 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 inventions in 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 and Systems Biology. (4). (Same as Biology and Chemistry CM260B.) 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 Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, 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 application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM122. Letter grading.

CM224. Computational Genetics. (4). Same as Bioinformatics M224 and Human Genetics CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, and one models and semantics, propositional logic, first-order logic, logic programming. Functional models: expressions, equations, evaluation; combinator; lambda calculus; functional programming. Program models: programming languages and systems, including imperative and object-oriented programming languages. Lecture, four hours; outside study, eight hours. Requisites: courses 131, 181, Paradigms, models, frameworks. Letter grading.

231. Types and Programming Languages. (4). Lecture, four hours; outside study, eight hours. Requisite: course 131. Introduction to static type systems and their usage in program language design and software reliability. Optional topics, computer science. Topics include basic principles and goals of computer security, common security tools, use of cryptographic protocols for security, security tools (firewalls, virtual private networks, honeypots), virus and worm protection, security assurance and testing, design of secure systems, application of security principles to realistic problems, and new and emerging threats and security tools. Letter grading.

239. Current Topics in Computer Science: Programming Languages and Systems. (2 to 12). 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. Topics may be selected from instructor's research interests. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4). Lecture, four hours; outside study, eight hours. Requisite: course 131. Knowledge of database technology, knowledge-based systems, and advanced programming environments. Rule-based knowledge representation, spatio-temporal reasoning, and logic-based declarative querying/programming are salient features of this technology. Other topics include object-relational systems and data mining techniques. Letter grading.


241B. Pictorial and Multimedia Database Management. (4). Lecture, three and one-half hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisite: course 143. Multimedia data: alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models, Searching, and databases. Databases and access across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and multimedia applications. Introduction to multimedia streaming. Other topics at discretion of instructor. Letter grading.

244A. Distributed Database Systems. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 215 and/or 241A. File allocation, intelligent directory design, transaction management, deadlock, strong and weak concurrency control, commit protocols, semantic queries, and query languages. Object database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

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dynamic pipelining, superscalar and VLIW processors, branch prediction, speculative execution, software support for instruction-level parallelism, simulation-based performance analysis and evaluation, state-of-art design examples, introduction to parallel architectures. Letter grading.

251B. Parallel Computer Architectures. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course M151B. Recommended: course 251A. SIMD and MIMD systems, symmetric multiprocessors, distributed-shared-memory systems, messages-passing systems, systems, interconnection networks, host-network interfaces, switching element design, communication primitives, cache coherency, memory consistency models, synchronization primitives, statistical models. Letter grading.


254A. Computer Memories and Memory Systems. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 251A. Generic types of memory systems; control, access modes, hierarchies, and localization algorithms; system organization, and device considerations of ferroelectric memories, thin film memories, and semiconductor memories. Letter grading.

255A. Discrete and Random Processes. (4). Lecture, four hours; outside study, eight hours. Prerequisites: courses 215 and/or 251A. Task partitioning and allocation, interprocess communications, task response time modeling, process scheduling, message passing protocols, replicated file systems, interface, cache memory, actor model, fine grain multiprocessors, distributed operating system kernel, error recovery strategy, performance modeling, and measurement, scalability and maintainability, prototypes, and commercial distributed systems. Letter grading.

256A. Advanced Scalable Architectures. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course M151B. Recommended: course 251A, State-of-art scalable multiprocessors. Interdependency among implementation technology, chip microarchitecture, and system architecture. High-performance building blocks, such as chip multiprocessors (CMPs), On-chip and off-chip communication, Mechanisms for exploiting parallelism at multiple levels. Current research areas. Examples of chips and systems. Letter grading.

258H. Analysis and Design of High-Speed VLSI Interconnects. (4). Lecture, four hours; outside study, eight hours. Prerequisites: courses M258A, 258F. Detailed study of various problems in analysis and design of high-speed VLSI interconnects at both integrated circuit (IC) and packing levels, including interconnect capacitance and resistance, lossless and lossy transmission lines, cross-talk and power distribution, clock distribution, signal integrity driven design, interconnect topology and geometry optimization, and clocking for high-speed systems. Letter grading.

259. Current Topics in Computer Science: System Design/Architecture. (2 to 12). Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science system design in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

260. Machine Learning Algorithms. (4). Lecture, four hours. Enforced prerequisite: course 180. Problems of identifying patterns in data. Machine learning allows computers to learn potentially 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 health-care, financial systems, commerce, and social networking. Letter grading.

261. Language and Thought. (4). Lecture, four hours; outside study, eight hours. Prerequisites: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of problems models for various tasks, 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.

262A. Reasoning with Partial Beliefs. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 112 or Electrical Engineering 131A. Review of several formalisms for representing and managing uncertainty in reasoning systems; presentation of comprehensive description of Bayesian inference using belief networks representation. Letter grading.


262B. Knowledge in Causal Modeling, Inference, and Reasoning. (4). (Same as Statistics 241.) Lecture, four hours; outside study, eight hours. Prerequisite: one graduate probability or statistics course such as course 262A, Statistics 201B or 202B, Review of Bayesian networks, causal Bayesian networks, and structural equations. Learning causal structures from data. Identifying causal effects. Covariate selection and instrumental variables in linear and nonparametric models. Simpson paradox and confounding control. Logic and algorithmization of counterfactuals. Probabilities of counterfactuals. Direct and indirect effects. Testing for causation. Identifying causes of events. Letter grading.

262Z. Current Topics in Cognitive Systems. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 262A. Additional prerequisites for each offering announced in advance by department. Theory and implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, knowledge-based systems, decision support systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.

263. Language and Thought. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of problems models for various tasks, 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.

263B. Connectionist Language Processing. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 161 or 263A. Examination of connectionist/ANN models of natural language processing, issues include localist versus distributed representations, variable binding, instantiation and inference via spreading activation, acquisition of language and world knowledge (for instance, via back propagation in PDP networks and competitive learning in self-organizing feature maps), and grounding of symbols in sensory/motor experience. Letter grading.

263C. Animats-Based Modeling. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 130 or 131 or 161. Animats are mobile/sensing animals or software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via reinforcement learning, evolutionary programming. Animat-based tasks include foraging, maze finding, predation, navigation, predator avoidance, cooperation, nest construction, communication, and parenting. Letter grading.

264A. Automated Reasoning: Theory and Application. (4). Lecture, four hours; outside study, eight hours. Prerequisite: course 265. Introduction to theory and practice of automated reasoning using propositional and first-order logic. Topics include syntax and semantics of logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on ex-
presiveness, compactness, and computational tractability; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


M266B. Statistical Computing and Inference in Vision and Image Science. (4.) (Same as Statistics M232B.) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms in statistical 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, partial differential equations. S/U or letter grading.

267A. Neural Models. (4.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Review of major neurophysiological milestones in understanding brain architecture and processes. Focus on brain theories that are important for modern computer science and, in particular, on models of sensory perception, sensor-motor coordination, and cerebellar and cerebral state function. Students are required to prepare papers analyzing research in one area of interest. Letter grading.

267B. Artificial Neural Systems and Connectionist Computing. (4.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Analysis of major connectionist computing paradigms and underlying models of biological and physical processes. Examination of recent implementations of artificial neural networks along with their applications to associative knowledge processing, general multi-sensor pattern recognition including speed and vision, computer vision, and control. Students are required to prepare papers analyzing research in one area of interest. 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 current research in computational neuroscience. Neural networks and connectionism as paradigm for parallel and concurrent computation in application to problems of perception, vision, multisensory integration, and robotics. Letter grading.

269. Seminar: Current Topics in Artificial Intelligence. (4.) Seminar, to be arranged. Review of current literature and research pracitcin in area of artificial intelligence in which instructor has developed special interest. S/U grading. No credit for research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

270A. Computer Methodology: Advanced Numerical Methods. (4.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 103 or Mathematics 115B, or permission of instructor. Computer methodology and the use of numerical computing. Designed for graduate computer science and engineering students. Principles of computer implementation of selected numerical problems in algebraic and differential systems; transforms and spectra, data acquisition and reduction; emphasis on concepts pertinent to modeling and simulation and application of successful developments in numerical software. Computer exercises. Letter grading.


271C. Seminar: Advanced Simulation Methods. (2.) Seminar, four hours; outside study, six hours. Requisite: course 271A. Discussion of advanced topics in simulation of systems characterized by ordinary and partial differential equations. Topics include (among others) simulation languages, dataflow machines, array processors, and advanced mathematical modeling techniques. Topics vary each term. May be repeated for credit.

272. Advanced Discrete Event Simulation and Modeling Techniques. (4.) Lecture, four hours; outside study, eight hours. In-depth study in discrete event simulation and modeling techniques, including building valid and credible simulation models, output analysis of systems, comparisons of alternative system configurations. Variance reduction techniques, simulation models of computer systems and manufacturing systems. Letter grading.


274C. Computer Animation. (4.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.

275. Artificial Life for Computer Graphics and Vision. (4.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended: course 161. 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 reality, animation, interactive games, active vision, visual sensor networks, robotics, interactive systems, etc. Focus on comprehensive models that can realistically emulate variety of living things (plants and animals) from lower animals to humans. Exposure to effective computational modeling of phenomena of life and their incorporation into sophisticated, self-animating graphical entities. Specific topics include modeling plants using L-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 life. Letter grading.

M276A. Pattern Recognition and Machine Learning. (4.) (Same as Statistics M231.) Lecture, three hours. 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.

276B. Structured Computer Vision. (4.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Methods for computer processing of image data. Systems, concepts, and algorithms for image analysis, radiologic and robotic applications. Letter grading.

276C. Speech and Language Communication in Artificial Intelligence. (4.) Lecture, four hours; outside study, eight hours. Requisite: course M276A or 276B. Topics in human-computer communication: interface with speech pictures, sound and symbol generation by humans and machines, semantics of data, systems for speech recognition and understanding. Use of speech and text for computer input and output in machine learning.

M278. Probabilistic Models of Cognition. (4.) (Same as Statistics M239.) Seminar, three hours; discussion, one hour. Requisites: courses 180, Mathematics 134A, Statistics 100B. Modeling aspects of human cognition, designing artificial intelligence systems. Introduction to conceptual foundations and basic mathematical and computational techniques. Topics illustrated on different aspects of cognition. S/U or letter grading.

279. Current Topics in Computer Science: Methodology. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science methodology 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.

280A-280ZZ. Algorithms. (4. each) Lecture, four hours; outside study, eight hours. Requisite: course 180. Additional requisites for each offering announced in advance by department. Selections from design, analysis, and optimization of algorithms; computational complexity and general theory of algorithms; algorithms for particular applications, etc. Subsets of some current sections: Principles of Design and Analysis (280A); Distributed Algorithms (280D); Graphs and Networks (280G). May be repeated for credit with consent of instructor and topic change. Letter grading.

280AP. Approximation Algorithms. (4.) Lecture, four hours; 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 means algorithmic techniques are based on approximation—finding solution that is near to best possible in efficient running time. Coverage of approximation techniques for different problems, with algorithm design techniques that include primal-dual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computability and Complexity. (4.) Lecture, four hours; outside study, eight hours. Requisite: course 181 or compatible background. Concepts fundamental to study of discrete information systems and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, closure properties, machine characterizations, nondeterminism, decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NP-TIME. Letter grading.
Scope and Objectives

Students study for an M.A. degree in Conservation of Archaeological and Ethnographic Materials, with emphasis on the multiple values and meanings that archaeological and ethnographic artifacts may hold for society, and how they impact decisions on the conservation and use of those materials. In the conservation philosophy that underpins the program, there is a strong interdisciplinary component, essential to effective working practices in the future. The three-year graduate program is a collaborative venture with the Getty Trust and is based in specifically designed facilities at the Getty Villa site in Malibu.

The aim of the program is 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 creating the program ensures that both a major research university and an institution with a major mandate for conservation of the artistic heritage of the world are working to create a rich and vibrant conservation training opportunity. 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, including but not limited to the Departments of Anthropology, Art History, Chemistry and Biochemistry, Earth, Planetary, and Space Sciences, and Materials Science and Engineering, and the Interdepartmental Program in Archaeology.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Conservation of Archaeological and Ethnographic Materials Program offers a Master of Arts (M.A.) degree in Conservation of Archaeological and Ethnographic Materials.
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M215. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Same as Art History M204A.) Lecture, two hours; laboratory, one hour. Basic and advanced techniques in digital, computer-aided recording tools and scientific imaging to identify and determine condition (defects) and technological features of materials. Preparation and response to documentation, analytical (forensic) photography, and advanced imaging techniques. Letter grading.

M216. Science of Conservation Materials and Methods I. (4) (Same as Science Museum Science M216.) Seminar, one hour; laboratory, three hours. Required requisite: Materials Science 104. Introduction to physical, chemical, and mechanical properties of conservation materials (employed for preservation of archaeological and ethnographic materials), including what should be preserved and why, as well as lectures on technology of metallic works of art, relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of metallic artifacts and composite objects containing metals (copper and copper alloys, and silver). Corrosion of ancient metals and their deterioration processes, corrosion problems in stability, issues with composite objects, their deterioration and stabilization, cleaning, joining, and gap-filling. Letter grading.

224. Issues in Preservation and Management of Selection and Properties in Baskets They Are Treating. (4) Seminar, one hour; laboratory, three hours. Recipients of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readi- ness, first response and recovery. Research focuses on preparedness and preventive measures, including reburials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid responses cover development of on-site emergency risk assessments to evaluate damage and putting triage into practice, salvage rescue operations, emergency tempo- rary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, trans- portation, and storage. Emphasis on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

221. Principles, Practice, and Ethics in Conservation. (4) Lecture, three hours; activity, one hour. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making pro- cess. Use of appropriate methods and treatment options for preservation of cultural heritage materials both in museum and outdoor environment contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to ex- ample conservation issues related to sites, buildings, monuments, and collections. Ethical and con- textual aspects with reference to changing values in conservation of cultural materials, illustrating how cultural materials may have been treated differently ac- cording to those values. Letter grading.

222. Conservation and Ethnography. (4) Laboratory, four hours. Designed for graduate conservation stu- dents. Introduction to conservation of cultural materials in living museums and collections. Students learn different models for tribal museums and cultural centers, and importance of material se- lection and properties in treatments they are treating. Letter grading.

224. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Seminar, three hours. Designed to offer practitioners of preservation and management planning for heritage sites that reflect real case-study scenarios. Adaptive management planning following iterative processes for sustainable heritage preservation addressing threats and challenges such as climate change and global warming, conflicts, and neglect. Consideration of significance and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of risk assessments to address physical risks of decay. Site response and recovery. Readiness for site response and recovery. Development of basic theoretical knowledge on imaging and photonics technology and practical skills on conservation of cultural heritage. Letter grading.


232. Conservation Laboratory: Organic Materials I. (4) Laboratory, four hours. Required requisite: course 262. Designed for 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.


239. Conservation Laboratory: Metals II. (4) Laboratory, four hours; outside study, eight hours. En- forced requisites: courses 234, 262. Recommended: courses M210, M215. Conservation problems of metallic artifacts made of iron, steel, cast iron, gold, zinc, and aluminum that have some impor- tance in ethnographic practices. Practical work on me- tallic artifacts. Letter grading.

240. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Information Studies M238.) Lecture, two hours; laboratory, two hours. Required: Information Studies 432. Required of graduate conservation students. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sen- sitivities, along with protective measures for collec- tions. Letter grading.


242. Managing Collections for Museums, Librar- ies, and Archives. (4) (Formerly numbered 242.) Lecture, two hours; activity, two hours. Designed for graduate conservation students. A studio course in which conservators work together with curators, collection managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Con- current, scheduled with Conservation Techniques M124. Letter grading.

M246. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) (Same as Mat- erials Science CM233.) Lecture, two hours; laboratory, 90 minutes; current course M215. Required: Materials science course. Processing of extraction, alloying, surface patination, metallic coatings, corro- sion, and microstructure of ancient and historic metals. Conservation laboratory and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Practical instruction in metallographic micro- copy, Exploration of phase and stability diagrams of common alloying systems and environments and an- alytical techniques appropriate for examination and characterization of metallic artifacts. Letter grading.

M250. Conservation Laboratory: Rock Art, Wall Paintings, and Mosaics. (4) (Same as Art History M203F and Materials Science M215.) Laboratory, four hours. Required requisites: courses M210 (or Mate- rials Science M216 or C112), 210L, 264. Recommend: course M215. Conservation laboratory on conservation of rock art, wall paintings (archaeo- logical and modern composites on cements), mo- sas, and decorated architectural surfaces. Experi- ment with techniques and art of these disciplines (using materials science and reverse engineering processes) for characterization of technology, constituent mate- rials, and alteration products; development of conser- vation treatment proposals, testing of conservation products, and methods and conservation treatment. Letter grading.


262. Structure, Properties, and Deterioration of Materials: Organics. (4) Lecture, three hours. General introduction to different types of organic materials used to produce cultural heritage: wood, bark, paper, bast fibers, grasses, skin and leather, hair and wool, quills and feathers, bone and ivory, plastics and com- posites. Relationship between composition (chemical, process, and manufacturing) and properties of natural and man- factured materials using basic concepts from bi- ology and chemistry. Structural stability and deterioration phenomena of these materials as found in cultural collections. Letter grading.
DENTISTRY
School of Dentistry
UCLA
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Los Angeles, CA 90095-1762
(310) 825-9789
https://www.dentistry.ucla.edu
No-Hee Park, D.M.D., Ph.D., Dean

Scope and Objectives
The UCLA School of Dentistry offers the following 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
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 Courses

441C. Introduction to Healthcare. (2). Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

DESIGN | MEDIA ARTS
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Willem Henri Lucas, B.A., Chair

Professors
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Johanna R. Drucker, Ph.D.
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Robert A. Israel, M.F.A.
Willem Henri Lucas, B.A.
Peter B. Lunenfeld, Ph.D.
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Christian A. Moeller, Dipl.–ING
C.E.B. Reas, M.S.
Jennifer J. Steinkamp, M.F.A.
Victoria Vesna, M.F.A., Ph.D.

Professors Emeriti
James W. Bassler, M.A.
William C. Brown, M.A.
Mitsuru Kataoka, M.A.
J. Bernard Kester, M.A.
Lionel J. March, Sc.D.
Vasa V. Minich

Associate Professors
Ramesh Srinivasan, Ph.D.
Eddo I. Stern, M.F.A.

Scope and Objectives
The Department of Design | Media Arts offers the Bachelor of Arts and Master of Fine Arts degrees. The B.A. degree focuses on visual communication design, with emphasis on digital media. The M.F.A. 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 undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typography, motion, and interaction. 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 20 students, which encourages individual growth and fosters a sense of community within the department.

The two-year Master of Fine Arts (M.F.A.) 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

DANCE
See World Arts and Cultures/Dance
incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive multimedia applications in a networked environment and advanced computer graphics. The department's equipment combines high-end PC and Macintosh computers with facilities for sound and video editing.

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.

### Undergraduate Study

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.

#### Design | Media Arts B.A.

#### Capstone Major

**Preparation for the Major Required:** Design | Media Arts 8, 10, 21, 22, 23, 24, 25, 28.

**The Major Required:** Eleven upper division courses, including Design | Media Arts 101, 104, 153, 154, 157, 161, 163, two courses selected from 160, 171, 172, 173, and two capstone courses selected from 159A, 159B, 159C.

It is recommended that students have each term's program approved by the departmental adviser. Note: Consult the Schedule of Classes for courses limited to majors only.

### Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaaa/libRARY/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

#### Graduate Degrees

The Department of Design | Media Arts offers the Master of Fine Arts (M.F.A.) degree in Design | Media Arts.

### 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 locales to shoot photos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

2. **Web Design.** (2). Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized homepages with Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop to incorporate student Web designs. Critique of various Web pages to analyze successful use of Web design and understand enormous potential of Internet. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

3. **Game Design.** (2). Studio, 30 hours. Limited to high school students. Creation of a video game and digital art. Beginning with storyboard and learning how to bring game design to life. Creation and animation of three-dimensional characters and objects by using Maya, same software used by professional video game developers. Analysis of popular games to understand what is involved in producing modern games. Visits from professional game designer to help guide students own game design projects. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

4. **Audio Video Design.** (2). Studio, 30 hours. Limited to high school students. Creation of a video. 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 productions. Visits from professional video producer to help guide students in creating their own videos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

5. **Introduction to Design | Media Arts.** (4). Studio, 40 hours; discussion, four hours. Introduction to and exploration of variety of media such as graphic, web, and video design with goal of combining and integrating these media to express and realize their narrative projects. Students work with most current software and technology in each discipline area, developing diverse skill sets while cultivating conceptual capabilities around storytelling project, and with experienced instructors and professionals in field to develop projects utilizing this comprehensive and integrative approach. Culminates in portfolio that may be used for college applications. Field trips.

6. **Art/Science and Technology Studio/Laboratory.** (4). Studio/laboratory, 40 hours. Limited to high school students. Two-week summer course, including lectures, required screenings, laboratory visits, field trips, and outside study. Exploration of creative aspects of scientific research and innovation to gain broad understanding of impact of science on contemporary art and popular culture, with focus on new sciences of biotechnology and nanotechnology. 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. Synthetically of optical and aesthetic movements covering past two centuries: photography and industrialism (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and modernism (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; outside study, 12 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lectures. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

9. **Design | Media Arts B.A. Capstone Major

#### Preparation for the Major

**Required:** Design | Media Arts 8, 10, 21, 22, 23, 24, 25, 28.

**The Major

**Required:** Eleven upper division courses, including Design | Media Arts 101, 104, 153, 154, 157, 161, 163, two courses selected from 160, 171, 172, 173, and two capstone courses selected from 159A, 159B, 159C.

It is recommended that students have each term's program approved by the departmental adviser. Note: Consult the Schedule of Classes for courses limited to majors only.

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#### Graduate Degrees

The Department of Design | Media Arts offers the Master of Fine Arts (M.F.A.) degree in Design | Media Arts.

8. **Media Histories.** (5). Lecture, three hours; outside study, 12 hours. Synthetically of optical media and aesthetic movements covering past two centuries: photography and industrialism (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and modernism (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.

9. **Art, Science, and Technology.** (5). Lecture, three hours; outside study, 12 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lectures. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

10. **Design | Media Arts B.A. Capstone Major

#### Preparation for the Major

**Required:** Design | Media Arts 8, 10, 21, 22, 23, 24, 25, 28.

**The Major

**Required:** Eleven upper division courses, including Design | Media Arts 101, 104, 153, 154, 157, 161, 163, two courses selected from 160, 171, 172, 173, and two capstone courses selected from 159A, 159B, 159C.

It is recommended that students have each term's program approved by the departmental adviser. Note: Consult the Schedule of Classes for courses limited to majors only.

### Graduate Study

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#### Graduate Degrees

The Department of Design | Media Arts offers the Master of Fine Arts (M.F.A.) degree in Design | Media Arts.

8. **Media Histories.** (5). Lecture, three hours; outside study, 12 hours. Synthetically of optical media and aesthetic movements covering past two centuries: photography and industrialism (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and modernism (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.

9. **Art, Science, and Technology.** (5). Lecture, three hours; outside study, 12 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lectures. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

10. **Design | Media Arts B.A. Capstone Major

#### Preparation for the Major

**Required:** Design | Media Arts 8, 10, 21, 22, 23, 24, 25, 28.

**The Major

**Required:** Eleven upper division courses, including Design | Media Arts 101, 104, 153, 154, 157, 161, 163, two courses selected from 160, 171, 172, 173, and two capstone courses selected from 159A, 159B, 159C.

It is recommended that students have each term's program approved by the departmental adviser. Note: Consult the Schedule of Classes for courses limited to majors only.

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#### Graduate Degrees

The Department of Design | Media Arts offers the Master of Fine Arts (M.F.A.) degree in Design | Media Arts.
102. Introduction to Digital Image Creation and Manipulation. (5). Lecture, three hours; outside study, 12 hours. Overview of digital imaging technology and its application in design, media arts, and entertainment from both technical and content-based points of view. 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 various design practices and techniques related to each other across cultures and media, with strong emphasis on communication and creative thinking. P/NP or letter grading.

153. Video (5). (Formerly numbered 153A.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Use of video technology (video systems, cameras, displays, editing, and storage) to integrate image, sound, time, and motion. Emphasis on expression, continuity, and sequential patterns for video communication. P/NP or letter grading.

154. Word + Image. (5). (Formerly numbered 154A.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced requisite: course 101 or 104. Focus on relationship of type to content, image, and materials. Acquisition of knowledge of and sensitivity to typography in context of complex communication problems in print and digital media. Research, concept and content development, and articulation of methodologies of visualization. P/NP or letter grading.

157. Game Design. (5). (Formerly numbered 157A.) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced requisite: courses 22, 28, and 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four playable game projects that explore various aspects of game design: rule design, game balance, multiplayer strategy, complexity, randomness, polemics, narrative, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

159A-159B-159C. Capstone Senior Project. (5-5-5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Enforced requisite: course 160, 171, 172, or 173. 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 in different terms. Total units for courses 159A, 159B, and 159C may not exceed 10 units, with maximum of 5 units per term. Letter grading. 159A. Interactivity and Games. Interactive media, including game design, interactive installations, dynamic websites, creative coding and electronics. 159B. Video and Animation. Linear media, including storyboard, video, animation, modeling, editing, postproduction, and lighting. 159C. Visual Communication and Image. Visual communication, editorial design, photography, typography, branding, and narrative environments.

160. Studio: Topics in Design | Media Arts. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major course and major courses. Selected topics in design and media arts 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 10 units. Letter grading.

171. Topics in Interactivity and Games. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and major courses. Provides wider understanding of arts that parallels world of 20th-century visual languages. Study of story of one art form to another in richer context. Letter grading.

172. Topics in Video and Animation. (5). Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and major courses. Selected topics in interactive media and games 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 10 units. Letter grading.

173. Topics in Visual Communication and Image. (5). Studio, six hours. Preparation: completion of preparation for major and major courses. 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 10 units. Letter grading.

195A-195B. Community or Corporate Internships in Design | Media Arts. (2-4). Tutorial, six and 12 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business related to design. Students meet on regular basis with instructor and provide periodic reports of their experience. Courses 195A and 195B may be repeated for combined maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Design | Media Arts. (4). Tutorial, two hours. Preparation: 3.0 grade-point average overall. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

199. Directed Research in Design | Media Arts. (2 to 4). Three hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

200. Design | Media Arts Faculty Seminar. (2). Seminar, two hours. Limited to graduate design | media arts majors. Seminar to familiarize new graduate students with departmental faculty members and their creative work and research to help students select their faculty advisors. S/U or letter grading.

207. Mathematical Techniques in Design and Media Arts I. (4). Lecture, three hours. Designed for graduate students. Survey of mathematical techniques used in design and computation theory. Sets, relations, functions, lattices, and Heyting algebras, formal languages and production systems. May be repeated for credit with consent of adviser. S/U or letter grading.

208. Mathematical Techniques in Design and Media Arts II. (4). Lecture, three hours. Designed for graduate students. Survey of mathematical techniques used in design and computation theory. Theory of descriptive geometry, spatial transformations, matrix representations, symmetry and groups, graphs, maps and triangulations. May be repeated for credit with consent of adviser. S/U or letter grading.

M241. Programming Computer Applications in Architecture and Urban Design. (4). (Same as Architecture and Urban Design M227A.) Lecture, three hours; outside study, nine hours. Introductory course in logic of computing through experiments in computer graphics programming. Investigation of both procedural and object-oriented approaches to programming. May be repeated for credit with consent of adviser. S/U or letter grading.

M242. Introduction to Geometric Modeling. (4). (Same as Architecture and Urban Design M227B.) Lecture, three hours; outside study, nine hours. Required course M241 or mathematic language. Programming techniques for implementing modern computer-user interfaces, specifically focusing at issues relevant to building software tools. Use of computer-aided architecture and design. May be repeated for credit with consent of adviser. S/U or letter grading.

249. Advanced Seminar: Computer Applications. (4). Seminar, three hours; outside study, 12 hours. Preparation: course M241 or Architecture and Urban Design M227A. Survey of various roles computers may play in design; development of new applications. Topics include representation, search, evaluation, and communication. May be repeated for credit with consent of adviser. S/U or letter grading.

252A. Programming Media 1. (3). Studio, three hours; outside study, six hours. Limited to majors. Introduction to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming includes procedural and object-oriented programming, two- and three-dimensional graphics, computer game design, color models, and image processing. Letter grading.

252B. Programming Media 2. (3). (Formerly numbered C252B.) Studio, three hours; outside study, six hours. Enforced requisite: course 252A. Limited to majors. Exploration of use of mechanical actuators and sensors, custom interface design, microcontroller programming, and building kinetic and interactive physical artworks. Practical electronics theory, programming for embedded systems, two-dimensional and three-dimensional CAD, basic milling, laser cutting, mold making, circuit building, and other sculptural electronics fabrication techniques. Letter grading.

256. Interactive Environments. (4). Lecture/studio, six hours. Designed for graduate design | media arts majors. Emphasis on understanding fundamental principles of interaction and virtual environments. May be repeated for credit with consent of adviser. Letter grading.


Data and Media Arts A. (4). (Same as Statistics M237.) Studio, six hours. Through web-based and social networking of telecommunications networks and general advancement of data collection technologies, almost every aspect of our lives can be rendered in data. Contemplation of use of data in creation of media art and examination of each step in process of data collection,
Digital Humanities

Interdisciplinary Minor
College of Letters and Science

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Todd S. Presner, Ph.D., Chair

Faculty Committee
Maria T. De Zubiurre, Ph.D. (Germanic Languages, Spanish and Portuguese)
Johanna R. Drucker, Ph.D. (Art, Information Studies)
Diane G. Favro, Ph.D. (Architecture and Urban Design)
Christopher Johanson, Ph.D. (Classics)
Peter B. Luenenfeld, Ph.D. (Design | Media Arts)
Stephen D. Mamber, Ph.D. (Film, Television, and Digital Media)

Scope and Objectives

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 clusters. Students work 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 contribute 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 Study

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.

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 specialize. Information about the minor is available at http://www.digitalhumanities.ucla.edu. To submit an application for the minor, see the website and click on DH Minor.

Required Lower Division Course (4 to 6 units):

Required Upper Division Courses (25 to 28 units):

A minimum of 20 units applied toward the minor requirement 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

Upper Division Courses

101. Introduction to Digital Humanities. (5). Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical methodology to focus on rise of
new media and information technologies in 19th, 20th, and 21st centuries, such as photography, film, radio, television, Internet, and World Wide Web and their impact on how individuals, groups, and cultures experienced their worlds. Letter grading.

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.

194. Research Group Seminars: Digital Humanities. (2). Seminar, two hours. Requisite: courses 101, completion of two other minor courses. May be taken concurrently with course 195 or 196. Designed for undergraduate students who are part of research group. Discussion of research methods, tools, and current literature in field or of research of faculty members and students. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Digital Humanities. (4). Tutorial, two hours; fieldwork, eight hours. Limited to juniors/seniors. May be taken concurrently with course 194. Internship in supervised setting in community agency or business. Placements 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 required with supervising faculty member required. Letter grading.

196. 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.


Undergraduate Courses

201. Introduction to Digital Humanities. (5). Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginning in post-World War II era to present, highlighting major intellectual problems, disciplinary paradigms, and institutional challenges that are posed by digital humanities. Examination of major epistemological, methodological, technological, and institutional challenges posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital technologies and tools, ranging from map visualizations and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

250. Special Topics in Digital Humanities. (4). Seminar, three hours. Requisite: course 201. Introduction to advanced research method or thematic issue in digital humanities, such as digital textual analysis, digital mapping database and visualization technologies, or social media technologies. Acquisition of daily life 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.

DISABILITY STUDIES

Interdisciplinary Minor

College of Letters and Science

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fax: (310) 267-5166
e-mail: bwilkinson@college.ucla.edu
http://www.uvi.ucla.edu/dsmminor.htm

Victoria E. Marks, B.A., Chair

Faculty Committee

Bruce L. Baker, Ph.D. (Psychology)
Anurima Banerji, Ph.D. (World Arts and Cultures / Dance)
Helen Deutsch, Ph.D. (English)
Victoria E. Marks, B.A. (World Arts and Cultures / Dance)
Mary J. O’Connor, Ph.D. (Psychiatry and Biobehavioral Sciences)

Scope and Objectives

The Disability Studies minor introduces undergraduate students to the emerging interdisciplinary field of disability studies, offering a new lens for thinking about the body, society, and culture. The field reorients a marginalized phenomenon at the center of our experience, transforming what is often misconceived as an abnormality of daily life into one of its most basic realities. Faculty members from applied fields in the professional schools (e.g., education, law, medicine, nursing, public health, public policy, and urban planning) collaborate with faculty from academic disciplines across the College of Letters and Science and the School of the Arts and Architecture (e.g., anthropology, English, history, linguistics, psychology, and world arts and cultures) to provide a critical framework for questioning and connecting topics related to disability in these established disciplines.

Through a core course, carefully selected electives, a required two-term internship or research apprenticeship, and a senior capstone project, students in the minor obtain both breadth and depth in their understanding of the concept and practical implications of disability.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Disability Studies**

### Upper Division Courses

101. Perspectives on Disability Studies. (5). Lecture, one hour; discussion, two hours. Not open for credit to students who have completed course 101W. Introduction to disability studies, in-depth examination of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and central tension in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Satisfies Writing II requirement. Letter grading.

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 participation in representations of criminality and violence, and (3) disablement or emergent disability (injuries, illnesses, and impairments created by societal inequity) as consequence of intersecting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for transformative social marketing strategies that are vital to documenting and organizing movement to improve lives of people with disabilities as well as parent perceptions. P/NP or letter grading.

M103. Studies in Disability Literatures. (8). (Same as English M103.) 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 perceived on television and film across the United States to changes on ground in development to theories of human rights, sociology of disability, and media studies. Review of social and cultural factors that determine how society and medical profession understand autism as diagnostic category. Study of processes involved in identifying autism as represented in film and television, neuro- science, and disability studies. Review of social versus medical model of disability and analysis of dominant as well as counter discourse on autism. Overview of broad cultural understanding of children living 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 hours. How do parents deal with diagnosis of child with autism, and particularly mental illness in representations of some types of disability, (2) study of role of disability dependency and/or vulnerability that accompany violence committed against people with disabilities, (3) disablement or emergent disability (injuries, illnesses, and impairments created by societal inequity) as consequence of intersecting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for transformative social marketing strategies that are vital to documenting and organizing movement to improve lives of people with disabilities as well as parent perceptions. P/NP or letter grading.


150. Human Rights, International Development, and Disability. (4), (Same as Economics M150.) Lecture, three hours. Basic introduction to theories of human rights, sociology of development, and contemporary rights-based development theory and practice. International disability rights movement to serve as case study, following passage of U.N. Convention on Rights of Persons with Disabilities in 2006 to changes on ground in developing countries that are occurring today. Offered in summer only. P/NP or letter grading.

M157. Rechoreographing Disability. (Same as Dance M157.) Seminar, four hours. Through study of range of performance by, featuring, or about people who identify as disabled, reading and discussion of range of writing about disability and development to theories of human rights, sociology of disability, and media studies. Review of social and cultural factors that determine how society and medical profession understand autism as diagnostic category. Study of processes involved in identifying autism as represented in film and television, neuro-science, and disability studies. Review of social versus medical model of disability and analysis of dominant as well as counter discourse on autism. Overview of broad cultural understanding of children living with disabilities as well as parent perceptions. P/NP or letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5). (Same as Urban Planning M164A.) Seminar, three hours; fieldwork, two hours. Exploration of documentary filmmaking as catalyst for social change, using daily commute in Los Angeles as case study. Introduction to issues of race, ethnicity, gender, disability, and class 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.

194. Capstone Research Seminar. (2). (Formerly numbered 194.) Seminar, two hours. Enforced requisite: course 195SC. Required of students pursuing Disability Studies minor. Integration of off-campus work with academic theories and concepts within field of disability studies. Focus on final year of internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal
and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195CE. Community and Corporate Internships in Disability Studies. (4). Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting. Coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.


198. Honors Research in Disability Studies. (6 to 8). Tutorial, one hour. Enforced requisite: course 194. Limited to juniors/seniors. Required capstone course to Disability Studies minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Senior Project in Disability Studies. (6 to 8). Tutorial, one hour. Enforced requisite: course 194. 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. Letter grading.

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**Earth, Planetary, and Space Sciences**

**College of Letters and Science**

**UCLA**

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Kevin D. McKeegan, Ph.D., Chair

**Professors**

Vassilis Angeliopoulos, Ph.D.
Jonathan M. Aurnou, Ph.D.
Paul M. Davis, Ph.D.
T. Mark Harrison, Ph.D.
Raymond V. Ingerson, Ph.D.
David K. Jacobs, Ph.D.
David C. Jewitt, Ph.D.
Craig E. Manning, Ph.D.
Jean-Luc C. Margol, Ph.D.
Kevin D. McKeegan, Ph.D.
William L. Newman, Ph.D.
David A. Paige, Ph.D.
Gilles F. Peliter, Ph.D.
Edward J. Rhodes, Ph.D.
Bruce N. Runnegar, Ph.D.
Christopher T. Russell, Ph.D.
Edwin A. Schaufibe, Ph.D.
J. William Schoepf, Ph.D.
Laurence C. Smith, Ph.D.

Marco C. Velli, Ph.D.
Raymond J. Walker, Ph.D., in Residence
John T. Wasson, Ph.D.
An Yin, Ph.D.
Edward D. Young, Ph.D.

**Professors Emeriti**

Orson L. Anderson, Ph.D.
Peter Bird, Ph.D.
Friedrich H. Busse, Ph.D.
Donald Carlisle, Ph.D.
Paul J. Coleman, Jr., Ph.D.
Wayne A. Dollase, Ph.D.
Clarence A. Hall, Jr., Ph.D.
David D. Jackson, Ph.D.
Isaac R. Kaplan, Ph.D.
Margaret G. Kivelson, Ph.D.
Robert L. McPherron, Ph.D.
Arthur L. Montagnon, Ph.D.
Gerhard Oertel, Dr.rer.nat.
Walter E. Reed, Ph.D.
John L. Rosenfeld, Ph.D.
Gerald Schubert, Ph.D.
Ronald L. Shreve, Ph.D.

**Associate Professors**

Abby Kavner, Ph.D.
Axel K. Schmitt, Ph.D., in Residence

**Assistant Professors**

Caroline D. Beghein, Ph.D.
Lingxing Meng, Ph.D.
Jonathan L. Moulder, Ph.D.
Ulrike Seibl, Ph.D.
Aradhna K. Tripathi, Ph.D.

**Scope and Objectives**

The disciplines of geology, geochemistry, geophysics, paleobiology, and space physics are concerned with the structure and evolution of the solar system, Earth, and life; essentially, the physical environment and its interaction with biota. These studies entail the application of fundamental physics and chemistry to a broad subject area stretching from astronomy at one extreme to biology at the other. Areas that are emphasized in the Department of Earth, Planetary, and Space Sciences include isotope and trace element analyses, petrology and mineralogy, sedimentology, paleobiology and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

The variety of techniques applied lead to several concentrations within the five main disciplines. Students completing their studies with a B.S. or M.S. 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 Ph.D. 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 B.S. degrees.

**Undergraduate Study**

All of the majors offered in the Earth, Planetary, and Space Sciences Department are designated capstone majors. While the specific nature of the capstone experience varies by 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.

**Earth and Environmental Science B.A.**

**Capstone Major**

**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 1; another introductory organismic biology course; Mathematics 3A and 3B, or 31A and 31B; Physics 1A or 6A or 6AH. Each course must be passed with a minimum grade of C–.

**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 at http://www.admissions.ucla.edu/prospect/admtchtm for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Three courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 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 Geography 100 and 100A, 101 and 101A, 104, 105 and 105A, M107, M109, 110, 120, 121, 124, 125, M127, M131.

**Geology B.S.**

**Capstone Major**

**Preparation for the Major**

**Required:** Earth, Planetary, and Space Sciences 1, 51, 61; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 1; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Civil and Environmental Engineering 15 or Program in Computing.
10A or knowledge of Fortran or C++ demonstrated by examination. Each course must be passed with a minimum grade of C–.

**Transfer Students**

Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. One introductory biology course with laboratory, one year of calculus-based physics with laboratory, and one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Earth, Planetary, and Space Sciences 103A, 103B, 103C, 111, 112, 116, 133, 136A, one capstone field research course (121), and two additional courses from C106, C107, C109, 119, 125, C126, C132, 136C, 137, 139, C141, 150, 171, Civil and Environmental Engineering 128L, 151, 155, Geography 100.

**Geology/Paleobiology B.S.**

**Capstone Major**

**Preparation for the Major**

**Required:** Earth, Planetary, and Space Sciences 1, 3, 16 or 17, 51, 61; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14CL, or 20A, 20B, 20L, 30A, and 30L; Life Sciences 2, 3, 4; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, and 4AL, or 6A and 6B. Each course must be passed with a minimum grade of C–.

**Transfer Students**

To be admitted as Geology/Paleobiology majors, transfer students with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one introductory biology course with laboratory, two general chemistry courses with laboratory for majors, and one year of calculus. One calculus-based physics course with laboratory is recommended.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**


**Geophysics/Applied Geophysics B.S.**

**Capstone Major**

**Preparation for the Major**

**Required:** Earth, Planetary, and Space Sciences 1 or 5 or 8 or 9 or 15, 51, 61; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Recommended: Mathematics 32B. Each course must be passed with a minimum grade of C–.

**Transfer Students**

Transfer applicants to the Geophysics/Applied Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one introductory biology course with laboratory, one year of calculus-based physics with laboratory, and one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Earth, Planetary, and Space Sciences 1, 9; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL, 17, 18L; Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Each course must be passed with a minimum grade of C–.

**Geophysics/Geophysics and Space Physics B.S.**

**Capstone Major**

**Preparation for the Major**

**Required:** Earth, Planetary, and Space Sciences 1 or 5 or 8 or 9 or 15, 51, 61; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Each course must be passed with a minimum grade of C–.

**Transfer Students**

Transfer applicants to the Geophysics/Geophysics and Space Physics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one general chemistry course with laboratory for majors, and one year of calculus. A second year of calculus, one year of calculus-based physics with laboratory, and one introductory computer programming course are recommended.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Earth, Planetary, and Space Sciences M140, 152, 153, 154, 155, 171; one capstone 199 research course in the senior year; Physics 105A, 105B, 110A, 110B, 112, 131; two upper division courses from the physical sciences, engineering, or mathematics (must be approved by the undergraduate adviser).

Students planning to do graduate work in specialized careers in Earth sciences should, when possible, take appropriate courses in departments outside the major in addition to those already specified. Suggested graduate programs for various fields of emphasis are available in the Student Affairs Office, 3683 Geology, and provide guidelines in selecting upper division courses.

Qualified undergraduate students may, with consent of their advisers and the instructor, take Earth, Planetary, and Space Sciences graduate courses numbered from 200A through 248.
**Honors in Geology or Geophysics**

The honors program in geology or geophysics is intended to provide exceptional students an opportunity for advanced research and study under the tutorial guidance of a faculty member. Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geology or geophysics are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed at least 90 graded units at the University of California, and have completed a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

**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.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower Division Courses (8 units):**
- Earth, Planetary, and Space Sciences 1, one course from 5, 13, 15, or 61.

**Required Upper Division Courses (20 units minimum):**
- 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. Successful completion of the minor is indicated on the transcript and diploma.

**Geology Minor**

Geology is the study of the surface of the Earth and the rocks and processes that created it. Field methods, interpretation of rocks, and modern plate-tectonic models are emphasized, with the goals of finding valuable or hazardous materials and inferring geologic history. These skills are valuable in engineering, urban planning, and environmental and resource studies.

To enter the Geology minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower Division Courses (8 units):**
- Earth, Planetary, and Space Sciences 1, 51.

**Required Upper Division Courses (20 to 26 units):**
- Two courses from Earth, Planetary, and Space Sciences C106, C107, C109, and three courses from 103A, 103B, 103C, C106 or C107 or C109 (whichever course was not applied above), 152, 153.
- 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.

**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.

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower Division Courses (12 units):**
- Earth, Planetary, and Space Sciences 1, 8, 9.

**Required Upper Division Courses (20 units):**
- Earth, Planetary, and Space Sciences 136A, 171, and three courses from M140, 152, 153, 154, 155.
- 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.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Earth, Planetary, and Space Sciences offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Geophysics, Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Geology, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Geophysics and Space Physics.

### 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 or former courses 1F and 1H. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology. Mandatory field trips introduce students to solving of geologic problems in field. P/NP or letter grading.

2. **Astrobiology.** (5).
- Lecture, three hours; discussion, one hour; two field days. Origin, evolution, distribution, and future of life on Earth and in universe, paralleling major scientific initiative of NASA. Course material primarily from planetary and Earth science, paleontology and biology, astronomy, chemistry, and physics, with relatively little from mathematics. P/NP or letter grading.

3. **Environmental Geology of Los Angeles.** (4).
- Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.

- 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.
71. Introduction to Computing for Geoscientists. (3). Lecture, two hours; laboratory, two hours; outside computing study, three hours. Introduction to writing program code, using a suite of geoscience data, and comparison with models. Letter grading.

Upper Division Courses

100. Principles of Earth Science. (4). Lecture, three hours. Designed for nonmajors. Not open to students with credit for course 101. Introduction to geology and Earth history; major problems of geology, including examination of fallacies and philosophical problems that arise. Topographic and physical geology; major problems of geology, including examination of fallacies and philosophical problems that arise. Topographic and physical geology, and atmosphere. History of climate. Questions related to the Earth and its environment. Not open to students with credit for course 101. Earth's energy resources (fossil fuels and alternatives) from Earth science and sustainability perspectives. P/NP or letter grading.

101F. Earth's Energy with Fieldwork. (5). Lecture, three hours; laboratory, two hours; two required field trips. Preparation: one lower division atmospheric sciences, chemistry, Earth sciences, or physics course. P/NP or letter grading.

101A. Igneous Petrology. (5). Lecture, two to three hours; laboratory, six hours. Enforced requisites: course 51, Chemistry 14B and 14BL, or 20B, Mathematics 3B or 31B. Petrologic structure of crust and mantle and its relation to seismology. Lecture, three hours; laboratory, six hours; field trips. Enforced requisites: course 51, Chemistry 14B and 14BL, or 20B, Mathematics 3B or 31B. Examination of how these natural phenomena affect quality of human life. P/NP or letter grading.

103B. Sedimentary Petrology. (5). Lecture, two to three hours; laboratory, six hours; field trips. Enforced requisites: course 103A. Study of sedimentary rocks based on characteristics of sedimentary particles and dynamics of depositional processes. P/NP or letter grading.

119. Continental Drift and Plate Tectonics. (4). Lecture, two hours; laboratory, two hours; field trips. Enforced requisites: course 1 or 1H. Alfred Wegener's theory of continental drift and its current status. P/NP or letter grading.

and atmospheres; molecular spectra, radiative transfer, and planetary observations; dynamics of oceans and atmospheres. S/U or letter grading.


200D. Planetary Surfaces. (4). Lecture, three hours. Introduction to planetary surfaces (both exoge- nic and endogenic) shaping solid surfaces in solar system and description of their optical and thermo- physical properties, with emphasis on simple physics-based approach. Discussion of current literature. S/U or letter grading.

200E. Planetary Origins and Evolution. (4). Lecture, four hours. Designed for graduate students who are interested in origins of planetary systems and history of solar system. Open to advanced undergraduate students with consent of instructor. Provides background needed to understand and/or participate in research related to formation and evolution of solar system and exoplanetary systems. Description of proto-planet formation process and subsequent evolution of planetary systems by integrating observations and theory. Fosters interdisciplinary knowledge and communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


210. Geochronometers and Geochemistry. (4). Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermody- namics and kinetics of reactions among minerals, nat- ural waters, and magmas; construction and interpre- tation of phase diagrams; case studies of important geologic applications. Topics include radiometric and molecular evolution. Concurrency scheduled with course C106. Additional independent research project and oral presentation required of graduate students. S/U or letter grading.


220. Geodynamics. (4). Lecture, two and one-half hours: discussion, 30 minutes. Requisite: Mathe- matics 33A. Basic concepts of heat transfer applied to solutions of geophysical and geophysical problems, including problems of the Earth and Moon. Solidification of magmas, thermal and subsidence history of sedimentary basins, frictional heating on fault zones, mantle geotherms, tempera- ture in descending slabs, thermosolutio in geo- thermal regions. S/U or letter grading.


211. Mathematical Methods of Geophysics. (4). Lecture, four hours. Requisites: Physics 105A, 110A, 112, 131. Recommended: Physics 132D. Designed to provide mathematical background required for stu- dents pursuing Ph.D. in Geophysics and Space Physics, as well as related programs in department. Extensive survey of mathematical methods applicable to geophysical applications consistent with needs that geophysics students encounter in their research. Letter grading.

213. 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 junior and senior students in the physical sciences. Study of chemistry of Earth’s surface environment and interplay between biology, human activity, and geology. Introduction to origin and com- position of Earth, including atmospheres, crust, and hydrosphere. Examination of how these reservoirs are affected by biological cycles and feedbacks to biolog- ical 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.

216. Evolutionary Biology. (4). (Same as Ecology and Evolutionary Biology M200A.) Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speci- fication and species concepts, analytical biogeog- raphy, adaptive radiation, mass extinction, commu- nity evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

217. Molecular Evolution. (4). (Same as Ecology and Evolutionary Biology M231.) Lecture, two hours; discussion, two hours. Molecular evolution in molecular evolution, with special emphasis on molec- ular phylogenetics. Topics may include nature of ge- nome, neutral evolution, molecular clocks, concerted evolution, phylogenetic systematics, statistical and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.


220. Principles of Paleobiology. (4). Lecture/discus- sion, three hours. Limited to graduate science stu- dents. Designed to provide qualitative and visual back- ground in physical sciences students with consent of instructor. Current and classic problems in paleobiology, with emphasis on interdisciplinary problems involving as- pects of biology, geology, and cosmochemistry, 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; discus- sion, one hour; fieldwork, 10 days. Requisite: course 121 or 184G. Planning, execution, and presentation of geologic mapping projects at professional level. Res- olution 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 seis- mology; epicenter location; amplitude variations; seis- mological theory: exploration seismology; elastic- ity, focal conditions; surface wave analysis; microseisms and S/U or letter grading.


225A. Physics and Chemistry of Planetary Interiors I. (4). Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature ef- fects and transition equations; equilibrium and stabi- lity conditions; surface wave analysis; microseisms and S/U or letter grading.

225B. Physics and Chemistry of Planetary Interiors II. (4). Lecture, four hours. Lateral inhomogeneities in Earth: seismic velocities, petrology, geothermal and gravitational variations; evidence of motion; rema- nent magnetism, seismic motions; postglacial re- bound; plate tectonics; rheology of mantle; thermal convection; S/U or letter grading.

226. Advanced Igneous Petrology. (4). Lecture, three hours; laboratory; three hours; field trips. Requi- site: course 103A. Designed for graduate students. Understanding genesis of rock types based on geochemical, tectonophysical, and other geological evidence and principles. Concurrently scheduled with course C126. Graduate students required to read more recommended references, make class presen- tations on particular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

228. Introduction to Planetary Dynamos. (4). Lecture, three hours; laboratory; three hours. Requisite: courses 200A, 200B, 200C. Designed for graduate students. Basic principles of planetary dy- namo generation. Planetary core dynamics and core convection; mean field dynamos and dynamo theory; survey of modeling techniques and re- sults. S/U or letter grading.

229. Planetary Atmospheres. (4). Lecture, three hours. Requisite: course 200B. Planetary atmos- pheric structure, dynamics, and composition. Includes spacecraft observations; origin and evolution of at- mospheres; photochemistry, radiation mechanisms, and transport; atmospheric waves and general circu- lation; wave-mean flow and turbulence; remote sensing and inversion techniques. S/U or letter grading.

X-ray, reciprocal lattice theory, single crystal X-ray methods, diffraction symmetry and elementary crystal structure analysis. S/U or letter grading.

231. Historical Geology. (4).
Lecture, three hours; laboratory, one hour. Requi-
site: course 51. Geology 105B-105C.

Lecture, three hours; laboratory, one hour. Requi-
site: course 51. Geology 105B-105C.

Lecture, three hours; laboratory. Interrelation of physical properties of rock-forming minerals: optical reflectivity, refractive index, sound velocity, elastic constants, specific heat, and thermal expansivity. Determination of pressure, volume, and temperature relationships and planet-forming compounds. Variation of elastic constants with temperature and pressure. Application of shock-wave experiments to equations of state. 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 applications to mineral stability relations in igneous and metamorphic rocks (fractional crystallization, partial melting, hydrothermal solutions, element partitioning in contrasting phases). S/U or letter grading.

235A-235B-235C. Current Research in Geochemistry. (1-1-1). Discussion, one hour. Limited to graduate Earth and space sciences students. Seminars presented by staff, outside speakers, and graduate students. Seminar in Earth and planetary chemistry. May be repeated for credit. S/U grading.

238. Metamorphic Petrology. (4).
Lecture, three hours; laboratory, six hours. Preparation: one introductory petrology and petrographic course. Interpretation of metamorphic rocks in light of observation, theory, and experiment. Geological relations, petrographic evidence, metamorphic zoning, thermodynamic state of phase equilibria, projections, chromo-
graphic relationships, use of zircon and other rare minerals. Rayleigh depletion model, isotopic fractionation, envi-
ronmental factors of metamorphism. Laboratory study of representative metamorphic rocks and suites of rocks. Concurrently scheduled with course 238A. May be repeated for credit. S/U grading.

Lecture, three hours. Requisite: course 200C or Physics 210A. Physics of plasma in space, including treatments based on magnetohydrodynamics and kinetic theory. Applications to solar or planetary winds, steady-state magnetospheres, magnetosheath convection, substorm processes, magnetic merging, field-aligned currents and magnetospheric/ionosphere coupling, ring current dynamics, and wave particle instabilities. S/U or letter grading.

Lecture, three hours; laboratory, three hours. Requisites: courses 103B, 111. Mechanisms of sedimentary basin development, flexural and thermal subsidence, isostasy, subsidence analysis, quantitative basin modeling, sediment proven-
cance, and basin analysis. Concurrently scheduled with course 241A. S/U or letter grading.

Lecture, two hours; laboratory, four hours. Requisite or corequisite: course 241A. Petrographic study of sandstones, with emphasis on diagenetic processes. S/U or letter grading.

Lecture, three hours; field trips. Requisites: courses 103B, 111. Fluid dynamics, sediment transport, and sedimentology of nonmarine and marine depositional systems, including fluvial, alluvial fan, lacustrine, eolian, and shallow-marine to deep-marine clastic and carbonate environments. Letter grading.

244. Tectonics of Sedimentary Basins. (4).
Lecture, two hours; discussion, two hours; field trips. Requi-
sites: courses 103B, 119. Recommended: course 241A. Basin analysis, stratigraphy, paleoenvironments, sedi-
tectonic problems. S/U or letter grading.

245A-245B-245C. Current Research in Tectonics. (1-1-1). Seminar, one hour. Limited to graduate Earth and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current research in tectonics and/or sedimentology. May be repeated for credit. S/U grading.

Lecture, three hours. Requisite: course 202 or Civil Engineering 108. Over-
coring, hydrofracture, fault plate solutions, seismic stress drops; effects of erosion, cooling, Earth elliptic-
ticity, topography, and density anomalies. State of stress in plate boundaries and interiors. Application of finite element and analytic methods to stress determina-
tion. S/U or letter grading.

248. Advanced Structural Geology. (4).
Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rock masses. Problems of structural interpretation of geologic bodies of small and large scales; regional tectonic problems. S/U or letter grading.

250. Mars. (4).
Lecture, three hours. Mars geology, geophysics, geodynamic processes, magnetic merging, field-aligned currents and atmospheres, geodynamics and volcanism, polar caps, atmos-
phere, climate. S/U or letter grading.

251. Seminar: Mineralogy. (4).
Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal struc-
ture, chemical composition, and metamorphic history. S/U or letter grading.

252. Seminar: Geochemistry. (4).
Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistries, recent and ar-
cient sediments, structure and chemistry of upper mantle, geochronology, cosmochemistry, and cos-
mochemistry. S/U or letter grading.

Seminar, three hours. Problems of igneous or metamorphic petrology; methods of evaluating physical conditions of meta-
morphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of mantle; element fractionation among coexisting phases; other current subjects in field. S/U or letter grading.

Seminar, three hours. Processes of sediment transport and deposition; deep sedimentary basins; theories of carbonate, sandstones, limestones, and strata; stratigraphy; pe-
loenvironmental studies. S/U or letter grading.

Seminar, three hours. Flow and fracture in Earth's crust from microscopic to continental scale and in ex-
periments. Examples may include metamorphic terranes, glaciers, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segmentation of continental-type rocks. S/U or letter grading.

Seminar/discussion, three hours. Advanced topics in paleobiology, biostro-
igraphy, paleoecology, and paleobiogeography, with emphasis on relations to other disciplines. S/U or letter grading.

Seminar, two hours; discussion, two hours. Requisite: course 244A. Basin evolution and paleogeography, with emphasis on Phanerozoic of Western U.S. S/U or letter grading.

260. Field Seminar. (2 to 6).
Fieldwork, two to six hours. Field study of significant problems in the state of California. Concurrently scheduled with course 260A. S/U or letter grading.

Lecture, four hours. Lectures, discussions, and exercises on specific advanced topics in magneto-
spheric plasma physics. Courses examined magnetic storms, magnetospheric substorms, ultralow frequency waves, and adiabatic particle motion in Earth's radiation belts. S/U or letter grading.

Fieldwork, five hours; laboratory, two hours. Requi-
site: course 150. Application of remote-sensing tech-
niques to field situations. Digital analysis and interpre-
tation of near-infrared, thermal-infrared, and micro-
wave data from satellites and aircraft. Field observation of study site in California desert for testing hypotheses during week between Winter and Spring Quarters. Concurrently scheduled with course C162. S/U or letter grading.

Lecture, two hours; discussion, two hours. Under-
standing and prediction of critical phenomena (de-
defined as abrupt overall changes) in Earth's crust, mathematic modeling and analysis of data from seismicity, remote sensing, and hydrology. Extensions to critical phenomena in engineering and socioeco-
nomic systems. Letter grading.

Lecture, three hours. Introduction to concepts and methods of nonlinearity, chaos theory, fractals, intermittency, self-organization, cooperativity, criticality, spatio-temporal chaos, turbulence, dis-
order, and fluctuations. Applications to tectonics, earthquakes, geomorphology, meteorology, evolution, biology. S/U or letter grading.

Seminar, two hours; discussion, two hours. Seismology, geophysical pros-
cpecting, electromagnetic prospecting. Selected topics in Earth physics. Content varies from year to year. May be repeated for credit. S/U or letter grading.

(Same as Astronomy M285.) Lecture, four hours. Dy-
namical problems of solar system; chemical evid-
ces from geochemistry, meteorites, and solar at-
mosphere; nucleosynthesis; solar origin, evolution, and termination; solar nebula, hydromagnetic pro-
cesses, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.

286A-286B-286C. Seminars: Planetology. (2-2-2). Seminar, two hours. Problems of current interest con-
cerning moon, planets, and meteorites. May be re-
peated for credit. S/U grading.

287A-287B-287C. Seminars: Seismology and Earth's Interior. (2-2-2). Seminar, two hours. Pro-lems of current interest concerning Earth's in-
terior. May be repeated for credit. S/U grading.

(Same as Atmospheric and Oceanic Sciences M288A-288B-288C.) Problems of current interest concerning particles and fields in space. May be repeated for credit. S/U grading.
M370B. Integrated Science Instruction Methods. (4). (Same as Chemistry M370B and Physics M370B.) Lecture, two hours; discussion, one hour. Requisite: course M370A or Chemistry M370A or Physics M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Earth and Space Sciences. (2). Seminar, one hour; discussion, two hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. Special emphasis on integration of technology in classroom. S/U grading.

501. Cooperative Program. (2 to 8). Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study and/or Research. (2 to 12). Tutorial, to be arranged. May be repeated. S/U or letter grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8). Tutorial, to be arranged. S/U grading.


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**East Asian Studies**

**Interdepartmental Program**

**College of Letters and Science**

**UCLA**

10373 Bunche Hall

Box 951487

Los Angeles, CA 90095-1487

(310) 206-6571

fax: (310) 206-3555

e-mail: idpgdrads@international.ucla.edu

http://webinternational.ucla.edu/institute/ids/paestasianstudies/

William Marotti, Ph.D., Chair

**Faculty Committee**

William M. Bodiford, Ph.D. (Asian Languages and Cultures)

Cameron D. Campbell, Ph.D. (Sociology)

Jack W. Chen, Ph.D. (Asian Languages and Cultures)

Torquil Duthie, Ph.D. (Asian Languages and Cultures)

Andrea S. Goldman, Ph.D. (History)

Namhee Lee, Ph.D. (Asian Languages and Cultures)

Matsuyu Hirano, Ph.D. (History)

Burglin Jungmann, Ph.D. (Art History)

Hui-Shu Lee, Ph.D. (Art History)

Katsuya Lee, Ph.D. (Asian Languages and Cultures)

William Marotti, Ph.D. (History)

Kyeong Park, Ph.D. (Anthropology, Asian American Studies)

David G. Schaberg, Ph.D. (Asian Languages and Cultures)

Shu-mei Shih, Ph.D. (Asian American Studies, Asian Languages and Cultures, Comparative Literature)

Richard E. Strassberg, Ph.D. (Asian Languages and Cultures)

Mariko Tamanoi, Ph.D. (Anthropology)

Michael F. Thies, Ph.D. (Political Science)

James Tong, Ph.D. (Political Science)

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**Scope and Objectives**

The Master of Arts degree in East Asian Studies provides an interdisciplinary and highly flexible program of study. With opportunities to take a range of advanced courses in the social sciences and humanities, students are able to tailor their programs to emphasize particular methodological and disciplinary approaches and to focus in depth on the region as a whole and on its dynamics in particular countries. Coursework and language offerings range from the ancient to the contemporary and allow students to prepare for a broad range of individual needs and career interests with a thorough grounding in the history and culture of the region.

Information on the undergraduate major in Asian Studies can be found in the International and Area Studies section later in this catalog.

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**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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**Graduate Degree**

The East Asian Studies Program offers the Master of Arts (M.A.) degree in East Asian Studies.

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**East Asian Studies**

**Graduate Courses**

291A-291B. (4-4). Seminar, three hours. Selected topics on East Asia. May be repeated for credit with topic change. S/U or letter grading.

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**ECOLOGY AND EVOLUTIONARY BIOLOGY**

**College of Letters and Science**

**UCLA**

101 Hershey Hall

Box 957426

Los Angeles, CA 90095-7246

(310) 825-1959, Graduate Office

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https://www.eeb.ucla.edu
The Bachelor of Science degrees combine essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. The Master of Science and Ph.D. degrees provide opportunities for advanced, concentrated study. The Master of Science degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The Ph.D. degree requires independent and innovative research that ultimately results in a dissertation.

Undergraduate Study

Students may earn a Bachelor of Science 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.

Two of the majors offered in the department are designated capstone majors: Ecology, Behavior, and Evolution and Marine Biology. In both programs 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.

Biology B.S.

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 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.

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 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, and Statistics 13, or Mathematics 31A, 31B, 32A, and Statistics 13, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 at http://www.admissions.ucla.edu/prospect/adm _transfer for up-to-date information regarding transfer selection for admission.

The Major

Students must complete the following courses:

1. Chemistry and Biochemistry 153A
2. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 109, 116, 120, 121
3. At least 8 laboratory units (two courses) from Ecology and Evolutionary Biology 100L (if completed Fall Quarter 2011 and thereafter), 101, 103, 105, 109/109L (count as one course), 110, 111, 112, 113A, 114A, 115, 117, 128, 136, 152/162L (count as one course), 162/162L (count as one course), 170, C174, 181. Four units from the Field Biology Quarter or Marine Biology Quarter may be applied, and one course from Molecular, Cell, and Developmental Biology C150/150AL or Physiological Science 166 may be included. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 8 units (two courses) from Ecology and Evolutionary Biology 100, 101, 103, 105, 107, 109, 110, 111, 112, 113A, 114A, 115, 116, 117, C119A, C119B, 120, 121, 122, 126, M127 (or Environment M127 or Geography M127), 128, 129, 130, M131 (or Geography M117), 133, 135, 136, 137, M139 (or Atmospheric and Oceanic Sciences M105), 142, M145 (or Earth, Planetary, and Space Sciences M118), 151A,
152, 153, 154, 155, 160, 162, 170, M171, C173, C174, 175, 176 (counts as one-half course), C179, 180A (counts as one-half course), 180B, 185, 186, 187, 198A and 198B (must take both), 199 (4 units), Molecular, Cell, and Developmental Biology 138, 163A. Eight units from the Field Biology Quarter or Marine Biology Quarter may be included, and any departmental course not applied under item 2 or 3 above may be applied in this category. Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185

5. At least 12 units (three courses) from the following: Anthropology 120 and/or one course from 124A, 124P, or 128A, Atmospheric and Oceanic Sciences M105 (or Ecology and Evolutionary Biology M139) or one course from 102, 103, 104, or 130, Biomathematics 110 and/or Biostatistics 100B, chemistry (except Chemistry and Biochemistry 193A through 199; Chemistry and Biochemistry 193A through 199, Environmental Science 116, Ecology and Evolutionary Biology (except 190 through 196), Environment 194, Geography 112 and/or one course from 108 or 111, Human Genetics C144 or one course from Life Sciences 100HA, 100HB, or 100HC, mathematics (except Mathematics 105A, 105B, 106, 191 through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 193A through 199), molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 190A through 199D), Neuroscience M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A), M101B (or Molecular, Cell, and Developmental Biology M175B or Physiological Science M180B or Psychology M117B), M101C (or Molecular, Cell, and Developmental Biology M175C or Physiological Science M180C or Psychology M117C), 102, M130 (or Molecular, Cell, and Developmental Biology M181 or Physiological Science M181 or Psychiatry M181 or Psychology M117J), M148, physics (except Physics 190 through 199), physiological science (except Physiological Science 191 through 199), Psychology 180C, 114A, 148, (except Physics 190 through 199), psychology and evolutionary science (except Physiological Science 191 through 199), Psychology 115. Any remaining units from the Field Biology Quarter or Marine Biology Quarter not applied in item 3 or 4 may be applied and any course not applied under item 2, 3, or 4 above may be included in this category.

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.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. 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.

Ecology, Behavior, and Evolution B.S.

Capstone Major

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.

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 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, and Statistics 13, or Mathematics 31A, 31B, 32A, and Statistics 13, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Ecology, Behavior, and Evolution major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, and one semester of organic chemistry or one year of general biology and one semester of calculus. Preference for the Marine Biology Quarter (MBQ) is given to Ecology, Behavior, and Evolution majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 120 prior to applying for the Marine Biology Quarter. 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, and gaining seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 109 and 109L prior to applying for the Marine Biology Quarter. Con-
suit the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Marine Biology B.S.**

**Capstone Major**
The Marine Biology major is designed for students who wish to specialize in the area of marine sciences. Completion of this major provides students with both an excellent background in biology and specialization in various disciplines such as oceanography, subtidal and intertidal ecology, and physiology of marine organisms. Graduates are well prepared for postgraduate opportunities in the marine sciences, many other areas of biology, and medicine. The major provides valuable field experience with concomitant individual research opportunities in marine biology.

**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, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, and Statistics 13, or Mathematics 31A, 31B, 32A, and Statistics 13, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.*

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 at http://www.admissions.ucla.edu/prospect/admission for transfer selection for admission.

**The Major**

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 marine organismic biology or physiology units (one course) from Ecology and Evolutionary Biology 101 (unless taken under item 2), 105 (unless taken under item 2), 107, 112, 128, 137, 142, 170 (unless taken under item 2), C174, or Physiological Science 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 4 ecology and behavior units (one course) from Anthropology 128A, Ecology and Evolutionary Biology 100, 116, C119A, 122, 126, 128, 129, M131, 133, 136, 137, 142, 151A, 152, 154, 155, 162, 170, or Geography M117
5. At least 4 evolution units (one course) from Ecology and Evolutionary Biology 116, 120, 121, 130, 133, 135, M171, C173, C174, 175, 185, or 186. 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 preapproved equivalent (see undergraduate adviser)
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, 119, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M117), 153, 198B, 199, Environment 184, Geography 100, 101, 103, M106 (or Atmospheric and Oceanic Sciences M106), 123, 130, 169, Mechanical and Aerospace Engineering 103, or 150A, Molecular, Cell, and Developmental Biology 172

Credit for 199 courses from other departments may not be applied.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Marine Biology majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. Students must complete Ecology and Evolutionary Biology 109 and 109L prior to participating in the Marine Biology Quarter. Consult the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Field Biology**
The department offers two quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ) and the Marine Biology Quarter (MBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 103, 113B, 114B, 115, 118, 124A, 124B, 125, 126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology Quarters occur during Fall and Spring Quarters. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview during Fall or Winter Quarter. 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.

**Computing Specialization**

Majors in Biology, Ecology, Behavior, and Evolution, and Marine Biology 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.

**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.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 1, Ecology and Evolutionary Biology 100, and 116 (or Environment 121) with minimum grades of C or better, and (3) file a petition in the Undergraduate Advising Office, 101 Hershey 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.
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.

**Required Lower Division Course (5 units):** Life Sciences 1.

**Required Upper Division Courses (28 units minimum):** Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses (19 units minimum) from 101, 103, 105, 106, 109, 111, 112, 114A, 114B, 122, 129, 131, 151A, 153, 154, 155, C174, 176, 180A. 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 the undergraduate counselors for more information.

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 departmental approval; consult 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. 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.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Ecology and Evolutionary Biology 100, and 120 or 185 with minimum grades of C or better, and (3) file a petition in the Undergraduate Advising Office, 101 Hershey 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.

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.


**Required Research Project or Internship (4 units minimum):** Ecology and Evolutionary Biology 195 or 199 or a suitable research internship from another department.

Participation in the Annual Biology Research Symposium (Poster Session) sponsored by the department in Spring Quarter is highly recommended.

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 20 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 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. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaga /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Ecology and Evolutionary Biology offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Biology.

**Ecology and Evolutionary Biology**

**Lower Division Courses**

10. **Plants and Civilization.** (4.) Lecture, three hours; discussion, 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.** (6.) 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.

13. **Evolution of Life.** (4.) Lecture, three hours; discussion, one hour. Not open to life sciences majors. Limited to 100 students. Introduction to biology within framework of evolutionary theory. Relationships of evolutionary thought to other areas of knowledge and society. Natural selection and origin of variation examined in context of genetics, molecular biology, physiology, phylogeny, population dynamics, behavior, and ecology. Emphasis on critical role of historical processes. P/NP or letter grading.

17. **Evolution for Everyone.** (5.) Lecture, three hours; discussion, two hours. Exploration of data in Darwinian natural selection, with emphasis on evidence and implications for modern problems people and societies face, including antibiotic resistance to pesticides, and coevolution of pollinators with crop plants. Nature of science in context of questions about ongoing real-time Darwinian processes. Letter grading.

18. **Why Ecology Matters: Science Behind Environmental Issues.** (5.) Lecture, three hours; laboratory, two hours. Basic ecological concepts, scientific method, and ecological basis for local and global environmental issues. Major challenges to be faced in this century, including need to find interdisciplinary and collaborative solutions to world’s worsening environmental problems (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.

20. **Self-Organization and Emergence in Biology: Complex Adaptive Systems Approach.** (5.) Lecture, four hours; laboratory, two hours. No prior mathematics, science, or computer knowledge required beyond that needed to enter UCLA. Discovery of how exciting new sciences of complexity address cutting-edge research and practical applications of interdisciplinary approaches to biological systems. Such system-processes range from machinery of cell through transnational epidemics to global climate change. Complex systems processes seek to bridge gaps among social, natural, and applied sciences (including engineering, management, and health sciences) and humanities to better conditions for humans and nonhumans alike. Exploration of existing computer simulations (similar to video games), experimenting on what-if world's to determine outcomes of nonlinear, chaotic, complex, and far-from-equilibrium processes in cellular, organismal, ecological, and evolutionary biology. Letter grading.

21. **Field Biology.** (4.) Lecture, three hours; discussion, two hours, or field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially Southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. **Living Ocean.** (5.) 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.

50. **Desert Life.** (4.) Lecture, four 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.
95. Lower Division Internship in Biology. (4). Tutorial/fieldwork, three hours per week per unit. Internship course for lower division students to be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.

96A. Communicating Science: Bringing Complex Concepts to Life. (1). Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Consult each quarter for course topics and prerequisites for enrollment. May be repeated for credit with consent of instructor. Credit/no credit. P/NP grading.

96B. Communicating Science: Life Sciences Researchers. (1). Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Consult each quarter for course topics and prerequisites for enrollment. May be repeated for credit with consent of instructor. Credit/no credit. P/NP grading.

96C. Communicating Science: Life Sciences Today. (1). Seminar, four hours. Limited to Ecology and Evolutionary Biology Department majors. Key to effectively communicating science is to be able to synthesize complex scientific concepts into one unified whole. Research and storytelling techniques learned in prior two terms used to research and synthesize big-picture topic in life sciences, with focus on evolutionary biology, systematics, morphology, and behavior. Students get to know life sciences researchers and what life scientists do by developing and producing one short video about one life sciences researcher. Letter grading.

97X. PEERS Forum: Pathways in Science. (1). Lecture, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Faculty and workshops of doctoral students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to graduates with science degree. May be repeated twice, but only unit may be applied toward graduation. P/NP or letter grading.

Upper Division Courses


101. Plant Evolution and Systematics. (5). Lecture, three hours; laboratory, three hours; field trips. Requisites: Life Sciences 1, 4. Evolution, systematics, morphological and molecular techniques, phylogenetic analysis, speciation, and natural history of plants. Letter grading.

102. Biology of Invertebrates. (6). Lecture, three hours; laboratory; field trips, six hours. Requisite: Life Sciences 1. Introduction to systematics, evolution, natural history, morphology, and physiology of invertebrates. P/NP or letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6). Lecture, two hours; laboratory, 12 hours. Requisites: course 105, Physiological Science 166 (may be taken concurrently). Offered either as 6-unit quarter-long course or 4-unit semester-long course. Advanced course of natural history, morphology, and physiology 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. Requisite: course 105 or completion of Marine Biology Quarter course. Advanced invertebrate biology course exploring evolutionary and genetic aspects of animal organization and the evolution and development of biochemical function of invertebrate form, and form and function that they relate to marine invertebrates. Letter grading.


109L. Introduction to Marine Science Laboratory. (2). Lecture, three hours; laboratory, 12 hours. Requisite: course 109 (may be taken concurrently), Life Sciences 1. Introduction to marine environments and methods used to study them. Exploration of variety of concepts in marine science, sea animals, and ecosystems. P/NP or letter grading.

110. Vertebrate Morphology. (6). Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1, 2, 3, 4, 23L. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and paleontology of 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. Requisite: Life Sciences 1. Adaptations, behavior, and physiology of vertebrates. Letter grading.


113A. Herpetology. (5). Lecture, three hours; laboratory, three hours; field trips, three and one half days per term. Requisite: Life Sciences 1. Recommended: course 100. Vertebrate zoology course restricted to biology of reptiles and amphibians of world, covering current systematics, ecology, behavior, morphology, and physiology of these animals. Letter grading.

114A. Field Ornithology. (5). Lecture, three hours; laboratory; field trips, three hours. Requisite: Life Sciences 1. Recommended: course 100. Not open for credit to students with credit for course C219A, C219B. Field research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

114B. Field Ornithology. (8). Requisite: Life Sciences 1. Recommended: course 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.


116. Conservation Biology. (4). Lecture, three hours; discussion, two hours. Requisite: Life Sciences 1. Recommended: course 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

117. Evolution of Vertebrates. (5). Lecture, three hours; laboratory, three hours. Requisites: Life Sciences 1, 2, 3, 4, 116. Evolution of Vertebrates. (5). Lecture, three hours; laboratory, three hours. Requisites: course 100. Five-week course offered only as part of Field Biology Quarter. Field-oriented introductory course by which vascular plants adapt themselves to their abiolic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.

119A. Mathematical and Computational Modeling in Ecology. (4). Formerly numbered C119A. Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 3B or 31A. Recommended: courses 100, 122, Life Sciences 1, 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 C119B. P/NP or letter grading.

C119B. Modeling in Ecological Research. (4). Lecture, two hours; discussion, two hours. 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 C219B. P/NP or letter grading.

120. Evolution. (4). Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, 23L, Mathematics 3A and 3B, or 31A. Designed for department majors specializing in environmental and population biology. Introduction to mechanisms and processes of evolution, with emphasis on natural selec-
121. Molecular Evolution. (4). Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, 23L. Molecular biology, with emphasis on evolutionary aspects. DNA replication, RNA transcription, protein synthesis, intrinsic growth, expression, and molecular evolution. Letter grading.

122. Ecology. (4). Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1, Mathematics 3B or 31A. Highly recommended: Math- ematics 3B or Life Sciences 3. Field and laboratory research, with emphasis on population and community ecology, with emphasis on growth and distributions of populations, interactions among species, natural selection, evolutionary relationships among organisms, principles and application of biological nomenclature. Letter grading.

123.1-123B. Field Marine Ecology. (4 or 8 each). (Formerly numbered 123.) Lecture, five hours; laboratory, 15 hours; field trip, 15 hours. Requisites: courses 111, 120, 122. Offered either as 4- or 8-unit five-week intensive course given off campus as part of Marine Biology Quarter that is in residence at research station located overseas or off campus, or at research station. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading.

124A-124B. Field Ecology. (4 or 8 each). (Formerly numbered 124.) Lecture, five hours; laboratory or field trip, 15 hours. Requisites: course 100, Life Sciences 1, Mathematics 23L. Recommended: courses 111, 120, 122. Offered as part of Field Biology Quarter that is in residence at research station located overseas or off campus, or at research station. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading.

125. Tropical Animal Communication. (4 or 6). Requisites: course 100, Life Sciences 1. Offered either as 4-unit quarter-long course or as 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, two hours. Animal communication behavior, morphology, and evolution of social behavior. Eight-unit course covers same basic lecture material in five or six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Letter grading.

126. Behavioral Ecology. (4 or 8). Requisites: course 100, Life Sciences 1, Mathematics 3C or 32A. Recommended: courses 111, 120, 122. Offer either as 4-unit quarter-long course or as 8-unit Field Biology Quarter course. Four-unit course has lecture, three hours; discussion, three hours. Animal communication behavior, morphology, and evolution of social behavior. Eight-unit course covers same basic lecture material in five intensive weeks, followed by extended field trip where students do individual projects in behavioral ecology. Letter grading.

127. Soils and Environment. (4). (Same as Environment M127 and Geography M127.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, 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. Letter grading.

128. Plant Physiological Ecology. (5). Lecture, three hours; laboratory, three hours; one two-day field trip. Requisites: Life Sciences 1, Physics 1C and 4BL, or 6C or 6CH. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, leaf temperatures, 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. Introduction to behavioral ecology. Methods and results of evolutionary approaches to study of animal behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization. Letter grading.


131.1-131B. Ecosystem Ecology. (4). (Same as Geog- raphy M117.) Lecture, three hours; field trips. Requisites: Geographical M120 or Life Sciences 1. Recommended: courses 110, 117 or Earth, Planetary, and Space Sciences 116. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil records, methods of rock record, and procedures for dating from stable isotopes, functional morphology, phylegnetics, and developmental biology. P/NP or letter grading.

132. Field Behavioral Ecology. (8). Lecture, two hours; field trip, 10 hours. Requisites: course 100, Life Sciences 1. Recommended: course 129. Five-week course offered only as part of Field Biology Quarter. Field research in behavioral ecology, emphasizing 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, one hour; discussion, one hour. 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). Field course. Requisites: Life Sciences 1. Recommended: course 100. Two weeks of off-campus research projects with two-week course lecture (four hours per day) and offered only as part of Field Biology Quarter. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals employ to achieve their survival in arid habitats. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.


136. Ecology, Behavior, and Evolution Laboratory. (6). Lecture, four hours; laboratory, eight hours; field trips, six and one half days per term. Requisites: course 100, Life Sciences 1, Mathematics 3C or 32A. Strongly recommended: course 120 or 122 or 129. Designed for Ecology, Behavior, and Evolution majors. Laboratory and field exercises on population genetics, growth, and regulation; competition and predation; behavioral interactions; species’ diversity and distribution. Results of research from theoretical models and computer simulations to laboratory and garden experiments to fieldwork. Mandatory field trips, including two weekend trips. Letter grading.

137. Chemical Communication. (4). Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL. Lecture, three hours; discussion, one hour. 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.

138. Introduction to Chemical Oceanography. (4). Same as Atmospheric and Oceanic Sciences M103.) Lecture, three hours; discussion, one hour. Introduction to the major processes and subdisciplines of oceanography, including physical, chemical, and biological processes that govern the composition of oceanic waters. Emphasis will be placed on the role 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.


145. Advanced Paleontology. (4). (Same as Earth, Planetary, and Space Sciences M115.) Lecture, three hours; Discussion, one hour. Requisites: course 110, or Earth, Planetary, and Space Sciences 116. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil records, methods of rock record, and procedures for dating from stable isotopes, functional morphology, phylegnetics, and developmental biology. P/NP or letter grading.


151A. Tropical Ecology. (4). Lecture, one hour; dis- cussion, two hours. Requisites: Life Sciences 1. Broad introduction to biodiversity, tropical forest ecosystems and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance regimes. P/NP or letter grading.

151B. Field Tropical Ecology. (8). Lecture, three hours; fieldwork, five hours. Requisites: course 100, Life Sciences 1. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarter. Introduction to biodiversity, community structure, and dynamics and ecosystem function in tropical forest habitat. Letter grading.

152. World Vegetation Ecology and Ecophysiology. (4). Lecture, three hours; discussion, one hour. En- forced requisites: Life Sciences 1. Diversity of physio- logical and ecological adaptations in biomes of world, explaining distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystem to globe, instrumentation for envi- ronmental and ecophysiological studies, and experiments used to make discoveries about plant adaptation. Letter grading.

153. Ecological Responses to Environmental Chal- lenges. (4). Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L. Life Sciences 1. Recommended: Life Sciences 2, 3, 4, Physics 6A. Chemical and phys-
ical principles pertinent to understanding functional responses of organisms to environment challenges, including those due to anthropogenic causes. Integrative focus provides comprehensive training in basic sciences of environmental processes, organismal acclimation and adaption, and consequences of individual performance for populations and communities. Course includes challenges associated with global warming, ocean acidification, low oxygen availability and dead zones, and changes in mass transport due to unprecedented variation in air and water motions. P/NP or letter grading.

154. California Ecosystems. (5). Lecture; three hours; laboratory or field trip, four hours. Requisite: Life Sciences 1. Recommended: course 100. Introduction to structure 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. Enforced requisite: Life Sciences 1. 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 existing theories of community organization and dynamics, both observational and experimental, bearing on these theories. Consideration of diverse array of communities—plant, animal, microbial, terrestrial, and marine—to give appreciation of evolutionary history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated climate change and conservation implications of these changes. Letter grading.

160. Introduction to Plant Biology. (4). Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 152. Introduction to aspects of plant biology. Topics include plant body, reproduction, plant diversity, gene expression, and basic plant function. Letter grading.

162. Plant Physiology. (4). Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, 23L. Basic aspects of plant function, including photosynthesis, carbon and nitrogen metabolism and its regulation; organellar interactions and compartmentation. Water relations, ion transport, flowering, hormone action, and plant responses to stress. Letter grading.

162PL Plant Physiology and Ecophysiology Laboratory. (2) Laboratory, four hours. Enforced requisite: Life Sciences 1, 2, 3, 23L. Enforced corequisite or requisite: course 152 or 162. Focus on whole-plant physiology and ecophysiology from biochemical and molecular processes to whole-plant function and field performance to gain understanding and appreciation of plant function, including dynamic processes of growth, development, and reproduction. Exercises provide training in approaches and instrumentation such that students become scientists, applying physiological techniques to answer questions on plant function. Letter grading.


165. Ecological Physiology of Marine Vertebrates. (4). Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 13L, 14L, and 30L; Ocean Sciences 1, 2, 3, 23L. Recommended: Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physicochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.

170. Animal Environmental Physiology. (8). Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, 23L, Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students with credit for Physical Science 166. Designed for Ecology, Behavior, and Evolution majors. Introduction to physiology (function) of animals’ organs and organ systems, with emphasis on environmental interactions and ecological adaptations. Letter grading.


C173. Earth Process and Evolutionary History. (4). Lecture, three hours; discussion, one hour. Enforced requisites: Chemistry 14A, 14B, Life Sciences 1, 2, 3, 4, Physics 8A, 8B. Recommended: one course from Atmospheric and Oceanic Sciences 100, 101, 102, 103, M105, Ecology and Evolutionary Biology 109, 116, 120, 121, M131, 135, 142, 152, 154, Geography 100, 101, or 103. Exploration of relationship between physical processes affecting surface of Earth, such as tectonics and climate, and biological evolution. Geo- logical history of Earth from its formation and history of scientific advancement. Changes through time in Earth’s systems. Examination of terms in their effects on biological process and biodiversity. Climate issues considered in this historical context of global process. Modern anthropogenic climate change placed in context of geologic record of climate change. Use of data and methods from disciplines such as historical geology, genetics, and geochemistry in reconstructing past events to be applied to problems considered. Concurrently scheduled with course C228. Letter grading.

C174. Comparative Biology and Macroevolution. (4). Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1. Recommended: one introductory statistics course. Modern comparative biology provides framework for studying broad questions in evolution—How do body shapes evolve? What are dynamics of evolutionary arms race? Why are there so many species? Are there so many beetles and so few crocodiles? Did dinosaurs put brakes on diversification of mammals? Examination of why tree of life is essential to understanding patterns of diversification of mammals? Examination of existing theories of community organization and dynamics, both observational and experimental, bearing on these theories. Consideration of diverse array of communities—plant, animal, microbial, terrestrial, and marine—to give appreciation of evolutionary history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated climate change and conservation implications of these changes. Letter grading.

180A-180B. Seminars: Biology and Society. (2-4). Seminar, two hours (course 180A) and four hours (course 180B). Investigations and discussions of current socially important issues involving substantial biocultural considerations, either or both as background for policy and as consequences of policy. May be repeated once for credit with instructor change. Letter grading.

181. Parasitology. (6). Lecture, three hours; laboratory, six hours. Requisites: Life Sciences 1, 3. Introduction to principles, biology, and evolution of infectious diseases, symbiosis, and parasitism, emphasizing protozoan and helminth parasites, including those of man. Letter grading.


185. Evolutionary Medicine. (4). Lecture, two and one-half hours; discussion, one hour. Enforced requisite: Life Sciences 1. Recommended: courses 112, 180. Five-week intensive course offered only as part of Marine Biology Quarter. Examination of existing theories of community organization and dynamics, both observational and experimental, bearing on these theories. Consideration of diverse array of communities—plant, animal, microbial, terrestrial, and marine—to give appreciation of evolutionary history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated climate change and conservation implications of these changes. Letter grading.

186. 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, obsessive-compulsive and eating disorders, all contemporary medical issues have evolutionary roots. Understanding of application of ideas brought to issues faced by physicians, veterinarians, psychologists, and other healthcare providers. Development of awareness and understanding of evolutionary roots of these disorders provides future healthcare providers with expanded perspective that enhances their practice and benefits their patients in whatever field they enter. Letter grading.

187. Variable Topics in Ecology and Evolutionary Biology. (4). Lecture, discussion, one hour. Requisites: Life Sciences 1, 2, 3, 4, 23L. Investigation, discussion, and study of current important is...
sues involving substantial biological considerations in ecology and evolutionary biology. Contact Undergraduate Advising Office for current topics. May be repeated for credit.

188. Special Courses in Ecology and Evolutionary Biology. (2), Seminar, two hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190. Research Colloquia in Ecology and Evolutionary Biology. (1), Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in ecology and evolutionary biology. Consult Undergraduate Advising Office for current topics. May be repeated for credit. S/U 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. Designed to train practiced and advanced undergraduate students in assisting with courses related to biology. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. Consult Undergraduate Advising Office for further information. May not be applied toward course requirements for departmental majors. May be repeated for credit. P/NP grading.

193. Journal Club Seminars: Ecology and Evolutionary Biology. (1), Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. 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 Research Careers. (2), Seminar, six hours. Designed for groups of students or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of papers from current literature. No more than four 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 progress 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 or of 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), Lecture, two hours; laboratory, six hours; discussion, two hours. Experiences related to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociability). S/U or letter grading.


202. Oceanography. (4). Lecture, four hours; discussion, two hours. Experiences related to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociability). Given off campus at marine science center. S/U or letter grading.

203. Marine Botany and Physiology. (4). Lecture, two hours; discussion, one hour; laboratory, six hours; experimental project. Designed for graduate students. Structure, reproduction, life histories, and biology of marine algae, with emphasis on physiological ecology and biochemistry. Techniques in culture and physio- logical, ecological, and biochemical investigation of algae. Given off campus at marine science center. S/U or letter grading.

204. Advanced Biology of Algae. (4). Lecture, four hours; discussion, one hour. Consideration of current research in experimental phycology. Topics include discussion of appropriate aspects of chemical and physical oceanography; algal physiology; biochemistry, physiological ecology, and algal processes in ocean and freshwater habitats. S/U or letter grading.


206. Advanced Ichthyology. (4). Lecture, three hours; laboratory, three hours. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


209. Behavior of Arthropods. (4). Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.

210. Advanced Ornithology. (4). Lecture, two hours; laboratory, six hours; field project. Requisite: course 114A. Advanced study of topics in modern avian biology. Emphasis on experimental approaches to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociability). S/U or letter grading.


C219A. Mathematical and Computational Modeling in Ecology. (4). (Formerly numbered C219.) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 3B or 3A. Recommended: courses 100, 122, Life Sciences 1, 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 C219B. S/U or letter grading.

C219B. Modeling in Ecological Research. (4). Lecture, two hours; discussion, two hours. Requisite: course C219A. Advanced techniques in mathematical and computational modeling of ecological dynamics and population dynamics 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 C211B. S/U or letter grading.


M226. Global Health Measures for Biological Emergencies. (4). (Same as Epidemiology M226.) Lecture, four hours; discussion, one hour. 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 and respond to threats, and be able to do so. C228. Earth Process and Evolutionary History. (4). Lecture, three hours; discussion, one hour. Enforced requisites: Chemistry 14A, 14B, Life Sciences 1, 2, 3, 4, Physics 6A, 6B. Recommended: one from Atmospheric and Oceanic Sciences M101, 101, 102,
M231. Molecular Evolution. (4). Molecular methods are used to test macroevolutionary hypotheses of biological diversity and how phylogenetic comparisons of evolutionary arms races? Why are there

differences placed in context of geologic record of climate change. Use of data from methods such as historical geology, genetics, and geochemistry in reconstructing past events to be applied to problems considered. Concurrently scheduled with course C173. S/U or letter grading.

C230. Comparative Biology and Macroevolution. (4). Lecture, three hours; laboratory, three hours. Recommended: one introductory statistics course. Modern comparative biology provides framework for studying broad questions in evolution—How do body shapes evolve? What are dynamics of evolutionary arms races? Why are there so many species in topics? Why are there so many beetles and so few crocodiles? Did dinosaurs put brakes on diversification of mammals? Examination of why and how species understanding patterns of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Concurrently scheduled with course C174. S/U or letter grading.

M231. Molecular Evolution. (4). (Same as Earth, Planetary, and Space Sciences M217.) 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.

232. Advanced Ecology. (4). Lecture, three hours; discussion, one hour; field trip, three hours. Required: course 122. Concepts and topics in ecology, evolutionary or behavioral ecology, or theoretical ecology. Topics vary from year to year and may include island biogeography, tropical biology, biodiversity, modeling in ecology, habitat selection, community structure and organization, and ecology and evolution of reproductive rates. May be repeated for credit. S/U or letter grading.


237. Communicating Science to Informal Audience: Teaching, three hours; discussion, one hour; laboratory or fieldwork, two hours. Enforced requisite: one course from course 25, Atmospheric and Oceanic Sciences M10, Chemistry 2, 14A, 20A, Earth, Plantary, and Space Sciences 1, 1F, 1S, Environmental M10, or Life Sciences 1. Designed for juniors/seniors. Combined instruction in inquiry-based teaching methods and learning pedagogy, with six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students practice communicating scientific knowledge and receive mentoring on how to improve their presentations to develop ocean science literacy and to encourage broad public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences is especially critical when considering that Americans are expected to comprehend and respond to increasingly complex issues, such as global climate change, with limited understanding of how natural world works. Concurrently scheduled with course C179. Letter grading.

M238. Ocean Biogeochemical Dynamics and Climate. (4). (Same as Atmospheric and Oceanic Sciences M233.) Lecture, three hours. Interaction of oceanic, biogeochemical, and climate systems. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales from few million years to several years. Attribution of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. Use of isotope study to ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles of ocean (8) 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; metabolic characteristics of cells, energy transformations. Given off campus at marine science center. S/U or letter grading.

243. Animal Communication. (4). Lecture, three hours; discussion, two hours. Required: Requisites: 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, neural basis of communication, and transduction, and receptor design in light of constraints placed on each sensory modality. Examples of communication systems using visual, auditory, chemical, electrical, and magnetic cues, with emphasis on biological adaptations for efficiently signaling species-specific information. 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.

247. Advanced Plant Biology. (4). Lecture, three hours; discussion, two hours. Required: course 162 or Molecular, Cell, and Developmental Biology C141. Open to undergraduates with consent of instructor. Designed to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organellar structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.

250. Professional Skills for Biological Research. (2 to 3). Seminar, two hours. Preparation, writing, and submission of research proposals. Collection and maintenance of field and laboratory data, preparation of scientific papers, and preparation of scientific papers, and publishing strategies. Optional field trip offered during some years for 1 extra unit. S/U or letter grading.

251. Seminar: Systematics. (2). Seminar, two to four hours. Current topics in systematic biology, including methods development and specific applications in study of phylogeny. Theme varies from year to year. May be repeated for credit. S/U or letter grading.


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, ecology, behavior, environmental physiology. S/U or letter grading.


263. Seminar: Population Genetics. (2 or 4). Seminar, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sexually antagonistic coevolution, conservation genetics, etc. S/U or letter grading.

264. Seminar: Stomatal Function. (4). Seminar, two hours; discussion, two hours. Open to undergraduates with consent of instructor. Topics include structure and function of guard cells; gas exchange; environmental and hormonal regulation of stomatal responses; sensory transduction; stomatal adaptations. S/U or letter grading.


273. Seminar: Entomology. (2). Seminar, two hours. Discussion of specific topics in entomology and related fields. Main theme varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.


279. Seminar: Evolutionary Biology. (2). Seminar, two hours. Required: course M231. Emphasis on particular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology; relationship between development and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and diversification; macroevolutionary patterns in fossil record. S/U or letter grading.

282. Seminar: Ichthyology. (2). Seminar, two hours. Required: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

M286. Seminar: Statistical Problem Solving for Population Biology. (2). (Same as Statistics M286.) Seminar, two hours. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.


M290. Seminar: Comparative Physiology. (2). (Same as Physiological Science M290.) Seminar, two and one-half hours. Discussion of specific topics in comparative physiology of animal. Topics vary from year to year, with emphasis on systems physiology, neuroethology, or behavioral physiology. S/U or letter grading.

The undergraduate major provides analytical training in reference to socioeconomic phenomena and offers an excellent theoretical background for those pursuing graduate education in economics, law, management, public administration, journalism, social welfare, architecture and urban planning, and education.

The graduate program is designed primarily for students pursuing the Ph.D. degree. The doctorate 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 Study

Economics B.A.

Admission
Application for the Economics major should be filed at the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 137 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under Preparation for the Major. In addition, they must be enrolled in UCLA regular session at the time of application.

Economics Premajor
While students are completing the lower division preparation courses for the major, they may be classified as Economics premajors.

Preparation for the Major

Required: Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E. Each course must be taken for a letter grade. A 2.0 (C) grade is required in each premajor course. To enter the major, students must have a minimum 2.5 grade-point average in the economics and mathematics preparation courses and a GPA of at least 2.0 in any upper division courses taken for the major before applying.

Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students
Transfer applicants to the Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, and one English critical reading and writing course.

Transfer students are required to take Econom ics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.
Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten upper division economics courses as follows: Economics 101, 102, 103, 103L; one course from at least three different fields in economics selected from the major fields list below; and three 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, 130B.

Each course must be taken for a letter grade. Former courses 100, 110, and 120 may not be included among the 10 upper division courses. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

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, and 103L.

Major Fields

Applied microeconomics (courses 106H, 130, 131, M134, M135, 137, 150, 151, 183); industrial organization (courses 106E, 106I, 106P, 106T, 170); international and development economics (courses 111, 112, 121, 122); mathematical economics and econometrics (courses 106D, 106G, 107, 141, 142, 143, 145); money and banking (courses 106F, 106M, 106V, 160, 161, 164).

Economics B.A./Applied Economics M.S. Dual Program

An intercampus dual degree program between UCLA and UC Santa Cruz allows students to obtain a B.A. in Economics from UCLA and an M.S. in Applied Economics from UC Santa Cruz in five years. Consult the economics undergraduate counselor for additional information.

Business Economics B.A.

The Business Economics B.A. 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).

Admission

Enrollment in the program is limited. Applications for admission are handled exclusively by the Department of Economics. To apply, students must have completed at least 72 quarter units (but no more than 137 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under Preparation for the Major. In addition, they must (1) be enrolled in UCLA regular session at the time of application, (2) have a 2.0 (C) minimum grade in each preparation course, (3) have a minimum 3.0 (B) overall average in all preparation courses except the writing course, and (4) 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. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Business Economics Premajor

While students are completing the preparation courses for the major, they may be classified as Business Economics premajors. (Transfer students who wish to enter UCLA as Business Economics premajors must meet the admission screening requirements. For information, contact the Office of Undergraduate Admissions and Relations with Schools.)

Preparation for the Major

Required: Economics 1, 2, 11, 41, 101; one Writing II course; Management 1A, 1B; Mathematics 31A, and 31B or 31E. Each course must be taken for a letter grade.

Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students

Transfer applicants to the Business 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, one English critical reading and writing course.

Transfer students are required to take Economics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Economics 102, 103, 103L, 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, 130B, 140 may be applied toward the elective requirement). In addition to Economics 103 and 103L, at least two economics courses with laboratories must be completed and may be selected from either the Economics 106 series or an economics elective.

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 an undergraduate counselor before enrolling in any courses for the major.

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.)

Economics/International Area Studies B.A.

The Undergraduate Council of the UCLA Academic Senate suspended admissions to the Economics/International Area Studies major effective Spring Quarter 2010. Continuing students who successfully completed the premajor courses by the end of Fall Quarter 2010 were admitted to the major. Students currently in the major and transfer students admitted to the premajor for Fall Quarter 2010 are not affected by the admissions suspension.

The Economics/International Area Studies B.A. program is for students who wish to attain specialized knowledge of a particular geographical area in addition to the economics analysis provided by the major. It should be useful to those who plan careers in international business or government service. The department encourages participation in the University of California Education Abroad Program or other recognized international study programs. Experience in foreign firms or institutions would be an advantage but yields no academic unit credit toward the major.

Admission

Qualified students must apply for the major through the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 137 units), one 12-unit term in residence in regular session at UCLA, and all courses listed under Preparation for the Major (except for the second year of foreign language). In addition, they must be enrolled in UCLA regular session at the time of application. Each course must be completed for a letter grade. A minimum 2.0 (C) grade is required in each premajor course, with a combined 3.0 GPA in the economics and mathematics courses. Students must also have a 2.0 (C) grade-point average in their upper division courses taken for the major before applying. Language course preparation need not be completed at the time of admission but must be completed before preparing the research paper required in Economics 199B. The program as a whole must be approved by an Economics Department counselor before students are admitted to the major.
Economics/International Area Studies Premajor

While students are completing the preparation courses for the major, they may be classified as Economics/International Area Studies premajors.

Preparation for the Major

Required: Economics 1, 2, 11, 41, 101, 102; Mathematics 31A, and 31B or 31E. Students also must complete at least the first year (or equivalent) of the two required years of a modern foreign language which is spoken in the geographical area of their major concentration. Repetition of more than one preparation course or of any preparation course more than once results in automatic denial of admission to the major.

Transfer Students

Transfer applicants to the Economics/International Area Studies 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 year of a modern foreign language related to the geographical concentration.

Transfer students are required to take Economics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admintro.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: A total of 12 upper division courses selected from economics and the approved noneconomics courses listed below for the concentration. Eight economics courses are required, including Economics 103, 121, 122, 199B, and four economics courses from at least two different fields (selected from the major fields listed under the Economics major). Economics 101 and 102 (which are required for the premajor) cannot be used to satisfy this requirement; former courses 100, 110, and 120 may not be included as electives. The four remaining upper division courses are social sciences courses related to the concentration and must be selected from the approved courses listed below. Students are required to include selections from at least two different departments. Economics 199B must be completed in the last year before graduation and includes the preparation of a research paper on the economy of the country or region of the concentration. In addition, students must show two-year proficiency (or equivalent) in a modern foreign language related to their concentration. The economics courses, the research paper, and the language learned must show consistency of purpose. Each major course must be taken for a letter grade.

One or two courses from Management 120A, 120B, 122, 127A, 130A, 130B may be substituted for one or two of the economics electives.

To graduate, students must achieve a minimum 2.0 grade-point average for both economics and noneconomics courses, with a grade of C– or better in each course.

Major Concentrations

When students declare the major, they must also select a concentration that includes a geographical area where the foreign language they have taken is spoken. They must complete four of the approved noneconomics courses listed, including courses from at least two different departments. Students may not use courses that are not on their concentration list unless they have petitioned and received approval in advance. Consult an undergraduate counselor in 2263 Bunche Hall about the petition process.

East Asia

Languages: Chinese, Japanese, Korean


Europe

Languages: French, German, Italian, Portuguese, Spanish


Latin America

Languages: Portuguese, Spanish


Middle East

Languages: Arabic, Hebrew, Persian, Turkish

Approved Noneconomics Courses: Geography 187, History 105C, 105B, Jewish Studies M142, Political Science 132A, 157, Turkic Languages 180

Former Soviet Union

Languages: Armenian, Russian


Individual Concentration

Language, geographical area, and noneconomics courses to be approved in advance by the economics/international area studies faculty adviser

Mathematics/Economics B.S.

See the Mathematics/Economics listing for a description of the major.

Honors Program

The departmental honors program is open to majors in Economics, Business Economics, and Economics/International Area Studies who have a cumulative grade-point average of at least 3.5 in the major and in all courses taken at UCLA prior to application.

To qualify for departmental honors at graduation, students must (1) select at least seven of the required upper division economics courses from the approved list designated for departmental honors, (2) complete a two-semester senior thesis acceptable to the departmental honors committee in Economics 198A and 198B, and (3) complete the major requirements with at least a 3.5 grade-point average in the economics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper division courses toward the field in which the thesis is written (for purposes of satisfying the requirements for the major). Further information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

Computing Specialization

The specialization in Computing is not a major, but a supplement to the three departmental majors. It provides an extensive education in elementary computer science and an introduction to its applications in economics.

Majors in Economics, Economics/International Area Studies, and Business Economics 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, Program in Computing 10A, 10B, two courses from Program in Computing 10C, 15, 20A, 20B, 30, 40A, 60, and at least two courses from Economics 103, 106P, 141, 143, 151, 199A, 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 in the undergraduate counselors office, 2263 Bunche Hall, and are advised to do so after they complete Program in Computing 10B and are officially admitted to one of the above majors. Students graduate with a bachelor's degree in their major and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Graduate Degrees
The Department of Economics offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Economics.

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 intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

2. Principles of Economics. (4). Lecture, three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

3. Partial Differentiation and Elementary Integral Calculus. (4). Formerly numbered 188B. Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106A. Students, in groups of four, address three small problems and one more complex problem. Discussion of student-proposed solutions to problems in their groups, with small-group discussions to student presentations of results in class. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.


5. Introductory Economics. (4). Lecture, three hours. Not open to students with credit for course 1, 2, or former course 100. Principles of economics as tools of analysis. Presentation of set of concepts with which to analyze wide range of social problems that economic theory illuminates. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

6. Microeconomic Theory. (4). Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, one course from Mathematics 31B, 31BH, 31E, 32A, Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

7. Microeconomic Theory. (4). Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, one course from Mathematics 31B, 31BH, 31E, 32A, Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.


9. Economic Toolkit. (2). Lecture, two hours. Should be taken prior to taking course 11. Coverage of essential mathematical and spreadsheet tools that Economics majors use in their core courses and upper division elective courses. Review of algebra (graphing lines, solving systems of equations), geometry (determining areas), calculus (first derivatives, partial differentiation, elementary integral calculus), and Business calculus (cost, revenue, marginal cost, marginal revenue, marginal profit). Hands-on data collection, using simple mathematical, mathematical, and financial functions, use of Solver). Offered in summer only. P/NP grading.

Upper Division Courses
101. Microeconomic Theory. (4). Lecture, three hours; discussion, one hour. Requisite: course 11. Theory of factor pricing and income distribution; general equilibrium; implications of pricing process for optimum allocation of resources; interest and capital. P/NP or letter grading.


103. Introduction to Econometrics. (4). Lecture, three hours; discussion, one hour. Enforced requisites: courses 11, 101, 102, 170A or Statistics 100A. Enforced corequisite: course 103L. Introduction to theory and practice of econometrics, with goal to make students effective consumers and producers of research in econometrics. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

103L. Econometrics Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisites: courses 11, 41 or Statistics 11 or 100A. Enforced corequisite: course 103. Econometric analysis of case-based studies. Hands-on data collection and problem solving. Use of econometric software. P/NP or letter grading.

106A. Economics in Practice. (4). Formerly numbered 188B. Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106A. Students, in groups of four, address three small problems and one more complex problem. Discussion of student-proposed solutions to problems in their groups, with small-group discussions to student presentations of results in class. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

106AL. Economics in Practice Laboratory. (1). Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 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.

106B. Economics in Practice Laboratory. (1). Lecture, one hour; laboratory, one hour. Enforced requisite: course 106F. Case-based analysis requiring 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.

106C. Introduction to Game Theory. (4). Lecture, three hours; discussion, one to two hours (when scheduled). Requisite: course 101. Enforced corequisite: course 106C. Enrolment priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of ideas such as dominance, backward induction, Nash equilibrium, commitment, credibility, asymmetric information, and signaling, with application to examples from economics, politics, business, and other real-life situations. Letter grading.


106L. Organization of Firms. (4). Lecture, three hours. Requisites: courses 11, 101. Enrollment priority to Business Economics majors. Focus on the development of firms to patterns observed in financial markets and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Development of understanding of potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulators. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106M. Financial Markets and Financial Institutions. (4). Lecture, three hours; discussion, one hour. Requisite: courses 11, 101, 102. Enforced corequisite: course 106M. Application of analytical tools of economics and finance to real-world problems in financial markets. Introduction to pattern models students have learned in prior courses to patterns observed in financial markets and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Development of understanding of potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulators. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


106PB. Finance Laboratory. (1). Formerly numbered 106FL. Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 106F. Case-based analysis requiring 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.

106PL. Pricing and Strategy Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106P. Case-based analysis requiring students to apply material from course 106P to real-world problems involving linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving presented in student analyses in writing. P/NP or letter grading.

106T. Economics of Technology and E-Commerce. (4). Lecture, three hours. Requisites: courses 11, 101. Enforced corequisite: course 106TL. 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, network markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106TL. Economics of Technology and E-Commerce Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 11, 101. Enforced corequisite: course 106T. Case-based analysis requiring students to apply theory from course 106T to real-world problems regarding issues such as bidding in online auctions, two-sided markets, network markets, and reputation mechanisms. Written analysis on one particular firm and presentation required.


106VL. Investments Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 102. Recommended: course 106V. Enforced corequisite: course 106V. 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, network markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.


111. Theories of Economic Growth and Development. (4). Lecture, three hours. Requisites: courses 11, 101, 103. Application of theoretical and empirical tools from microeconomics to provide insights into problems confronting low-income countries today and to evaluate policies that are likely to be effective in improving well-being of poorest on globe. P/NP or letter grading.


122. International Finance. (4). Lecture, three hours; discussion, one hour. Requisite: course 102. Enforced corequisite: course 122L. International Finance Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122L. 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 and exchange rates under various monetary standards, capital movements, exchange controls, and international monetary organization. P/NP or letter grading.

122L. International Finance Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122L. 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 problem solving and presentation of student analyses in writing. P/NP or letter grading.

123. Foreign Exchange Market and Exchange Rate Forecasting. (4). Lecture, three hours. Enforced requisites: courses 11, 101. 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 local public sector. 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. Case-based analysis requiring students to apply theory from course 130 to real-world problems regarding government spending programs, taxation, deficit financing, and federal credit programs. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


132. Topics in Taxation and Social Insurance. (4). Lecture, three hours; discussion, one hour. Requisites: courses 11, 101. In-depth examination of selected topics related to current policy debates. Topics vary from year to year but include social insurance and policy or social insurance. Topics may include optimal taxation; tax inefficiencies and their implications for labor supply, savings, and investment; income redistribution and personal income tax; corporate taxation and implications for firms’ investment and financing decisions; Social Security and SSDI reform; and welfare programs. P/NP or letter grading.

M134. Environmental Economics. (4). (Formerly numbered M134A). Enforced requisite: course 102. Lecture, three hours. Requisites: course 101 or Statistics 12 or 13, and course 101 may be waived with consent of instructor. Introduction to major ideas in natural resources and environmental economics, with 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.

M135. Economic Models of Public Choice. (4). (Same as Political Science M105.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two upper division courses in political science and economics. Enforced requisite: course 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective decisions through political mechanisms. Topics include free-rider problems, voting and majority choice, demand revelation, and political bargaining. P/NP or letter grading.

137. Introduction to Urban and Regional Economics. (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 local public sector. P/NP or letter grading.

140. Inequality: Mathematical and Econometric Approach. (4). Lecture, three hours. Requisites: courses 101, 103, and Mathematics 33A or 115A. In past decade economists have learned remarkable amount about how society works. Increased understanding through application of distinctively economic models and use of techniques to analyze the economic determinants of inequality—education, income, earnings, wealth, income distribution, and the economic causes of inequality. Introduction to major ideas in inequality—education and health. P/NP or letter grading.

141. Topics in Microeconomics: Mathematical Finance. (5). (Formerly numbered 141A). Lecture, three hours; computer laboratory, one hour. Requisite: course 11, Mathematics 32A, either Statistics 100A or Mathematics 170A. Economics of financial markets, competitive equilibrium with time and uncertainty, one period security market model, market completeness. 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 who have credit for former course 143. Use of rigorous economic tools to analyze phenomena such as insurance, job search, and stock market behavior. Optimal production and consump- tion under uncertainty. Probability of and interpretation of alternative measures of risk and risk aversion. 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 requirements: courses 101, 103, 103L. Survey of theory and application of time-series methods to forecasting in economics, business, and government. Topics include modeling and forecasting techniques, seasonal adjustment cycles, discussion of stochastic trends, volatility measure, and evaluation of forecasting techniques. Hands-on approach to real-world data analysis with widely used business and other professionals. P/NP or letter grading.

145. Topics in Microeconomics: Mathematical Economics. (4). Lecture, three hours. Requisite: course 101. Possible topics include game theory; comparative statics; analysis; examples of market failure and role for market intervention. P/NP or letter grading.

C16A-C16B-C16C. Seminars: Asset Pricing. (4-4-4). Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in monetary economics and macroeconomics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C276A-C276B-C276C. P/NP or letter grading.


150L. Labor Economics Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis requiring students to apply theoretical tools to course 150 to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor supply, short-run and long-run labor demand, monopsony in labor market, quasi-fixed labor costs and labor demand, human capital, and other extended topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4). Lecture, three hours. Requisites: courses 101, 105. Selected topics in labor market theory; income distribution; business cycles and unemployment; investments in human capital and its role on fertility; marriage and divorce, etc. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Economics. (4-4-4). Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C276A-C276B-C276C. P/NP or letter grading.


170L. Industrial Organization: Theory and Tactics Laboratory. (1). Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 170L. Case-based analysis requiring students to apply material from course 170 to real-world problems involving monopoly, collusion, strategic firm behavior, pricing practices, antitrust and other topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

173A-173B. Introduction to Social Entrepreneurship. (4-4). Lecture, one hour; research group meeting, two hours. Course 173A is requisite to 173B. Fully developed business plans for social enterprises. Students are assigned in teams to develop business plans for social enterprises to which they are assigned. Teams receive support from M.B.A. students who act as advisors. Topics include collaboration and team building, importance of culture, marketing, strategy, evaluation of opportunities, management skills, and financial management. P/NP or letter grading.


186L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1). Laboratory, one hour. Enforced corequisite: course 186L. Course in macroeconomics that employs both theoretical and empirical tools to analyze wide range of topics related to economic growth. Topics include labor markets, human capital formation, international trade, and distribution of income. P/NP or letter grading.

187. Upper Division Research Seminar: Applications of Economic Theory. (4). Seminar, three hours. Limited to seniors. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C264A-C264B-C264C. P/NP or letter grading.

188. Career Development. (1). Lecture, one hour. Enrollment priority to departmental majors. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academics to maximize inter- view, communication, and presentation skills and strengthen résumé building. Coverage of career paths in business profession in various aspects to broaden students' knowledge of career opportunities. Review of course materials and current information on careers, income, unemployment, banking crises, market up- dates, and all related business topics. P/NP or letter grading.

195A-195B. Community or Corporate Internships in Economics I, II. (4-4)-T. Tutorial, to be arranged. Requisite: courses 11, 101. Limited to junior/senior Economics, Business Economics, Economics/International Area Studies, and Mathematics/Economics majors. Internship to be supervised by Economics Department. Further supervision to be provided by business, community, or corporate sponsor. Individual contract is to be arranged by student and Economics Department. 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.

195C. Community and Corporate Internships in Economics, 195CE, 195CF, 195CG, 195CH, 195CI, 195CJ, 195CK, 195CL, to be arranged; fieldwork, eight to 10 hours. Requisites: courses 11, 101. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated by Economics Department. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May not be applied toward major requirements. May be repeated for credit with consent of department. Students must secure contract with supervising faculty member required. P/NP or letter grading.

198A. Honors Research in Economics I. (4). Tutorial, three hours. Requisite: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-term sequence in which students develop honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Economics II. (4). Tutorial, three hours. Requisite: course 198A. Limited to senior departmental honors program students. Second term of two-term sequence in which students complete honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. 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. Open only to students who have completed major requirements. 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, four hours. Requisites: courses 103, and 121 or 122. Limited to senior Economics/International Area Studies majors. 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. Letter grading.

Graduate Courses

200. Mathematical Methods in Economics. (4). Lecture, three hours. Should be taken prior to enrollment in course 201A. Examination of mathematical methods used in graduate-level courses in microeconomics, macroeconomics, and quantitative methods. Topics include real analysis, linear algebra and matrices, calculus of many variables, static optimization, convex analysis, and dynamic systems. P/NP grading.

200B. Mathematical Methods in Economics II. (4). Lecture, three hours; laboratory, two hours. Should be taken prior to enrollment in 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.

201A-201B-201C. Microeconomics. (4-4-4). Lecture, three hours. S/U or letter grading.


204A-204B-204C. Applications of Economic Theory. (4 each) Lecture, three hours. S/U or letter grading.


204B-204B-204C. California Population Research Seminar Series. (4-4-4) Formerly numbered 204A. Same as Sociology M225A. Seminar, three hours. Discussion of cutting-edge and timely topics in demography, health, aging, labor, and broad array of topics con-cerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. Each course may be taken independently for credit. S/U grading.

204M. Microeconomic Theory. (4) Lecture, three hours. S/U or letter grading.

205. Economic Modeling. (4) Lecture, three hours. Development of model-building techniques involved in econometric courses. In past decade economists have learned remarkable amount about how society works. Increased understanding has come about through application of mathematical methods of research—explicitly mathematical models and ecletic statistical techniques—to topics such as healthcare, crime, education, and immigration. Taken together this work has led to increased understanding of inequality, how to measure it, how inequality has in-creased in U.S., how America differs from other rich countries and, most important, what causes in-equality, Study of this work, with focus on two im-portant influences on inequality—education and health—which are two areas in which knowledge is accumulating most rapidly. S/U grading.

206. Law and Economics Workshop. (2 or 3). Seminar, two hours. Requisites: course 210A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside speakers with scholars and students from UCLA Law School and academic de-partments. Topics include contracts, torts, intellectual property, and business law. Students write graded re-ports. 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, in-cluding work of Smith, Ricardo, and Mill, and develop-ments from 1870s, including contributions of major figures of marginalistic revolution, socialist contro-versy, 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 demographic 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.

Economic Theory


211B. Economics of Uncertainty, Information, and Games. (4). Lecture, three hours. Preparation: intro-ductory probability. Enforced requisite: course 201C. Theory of individual decision making under uncer-
tainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading.

211C. EconomicApplications. (4). Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Intended for students who are interested in doing research in microeconomic or macroeconomic theory for students who want to acquire good theory background to do applied work. Coverage of combination of standard results in field and topics of current research, including notions of equilibrium in static and dynamic games, reasoning in games, repeated games, games of incomplete information, and experiments. S/U or letter grading.

212A-212Z. Topics in Advanced Theory. (4 each). Lecture, three hours. Current research in microeconomic theory and macroeconomic theory. In this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.


212B. Applied Game Theory. (4). Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of theory of mechanisms to study auction design and imperfectly competitive markets. May be repeated for credit. S/U or letter grading.

213A-213B. General Equilibrium and Game Theory. (4-4). Lecture, three hours. Requisite: course 201C. Selected advanced theoretical topics of current interest and introduction to modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading.

214A-214Z. Topics in Mathematical Economics. (4 each). Lecture, three hours. Requisite: course 213B. 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. General Equilibrium Theory. (4). Lecture, three hours. Requisite: course 201C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfectly competitive equilibria, no-subsidiary condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.


218A-218B-218C. Proseminars: Economic Theory. (4-4-4). Seminar, three hours. Quarterly seminars for predissertation and dissertation writers. Discussion of advanced topics and recent developments in game theory, information and uncertainty, and general equilibrium theory. Presentation of recent papers published and unpublished in economic theory as well as research of instructor and students. In-class presentation and discussion on recent work in game theory. S/U or letter grading.

219A-219B-219C. Workshops: Economic Theory and Mathematical Economics. (4-4-4). Lecture, three hours. Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U grading. Also see Management 230A (decision theory)

Monetary Economics

221A-221D. Monetary Economics I to IV. (4 each). Lecture, three hours. S/U or letter grading.


221D. Monetary Economics IV. (4). Lecture, three hours. Requisites: courses 202A, 202B, 202C. Emphasis on applied macroeconomics, with topic change each year. Students select one particular data set to set to study. Current research in monetary economics and macroeconomics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C166A-C166B-C166C. S/U (C226B) and S/U or letter (C226A, C226C) grading.

228A-228B-228C. Proseminars: Monetary Economics. (4-4-4). Seminar, three hours. Workshops for predissertation and dissertation writers. Literature surveys or research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper or presentation required. S/U grading.

229A-229B-229C. Workshops: Monetary Economics. (4-4-4). Lecture, three hours. Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U grading. Also see Management 239A, 239B, 239C (Ph.D. sequence in finance), 239D (advanced topics in finance), 239X, 239Y, 239Z (finance workshops)

Econometrics


232A. Bayesian Econometrics. (4). (Same as Political Science M208E.) Lecture, three hours. Requisites: courses 231A, 231B. Introduction to decision theory, Bayesian analysis of regres- sion, sensitivity analysis, simplification of models, criti- cism. May be repeated for credit. S/U or letter grading.


Economic History


246A-C246B-C246C. Seminars: Economic His- tory. (4-4-4). Seminar, three hours. Designed for pre- dissertation and dissertation writers. Overview of most current developments in economic history for advanced undergraduate and graduate students. In- troduction to graduate-level research in this field. Different topic each week, with presentation and discus- sion 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.


246A-246B-246C. Workshops: History of Entrepreneurship in U.S. Economy. (4-4-4). Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress discussed by visiting experts, UCLA faculty members, graduate students. Concurrently scheduled with courses C186A-C186B-C186C. S/U grading.

Public Finance

251A. Theory and Policy of Taxation. (4). Lecture, three hours. Examination of influence of taxation on economic efficiency and income distribution in first part of course. Topics include tax equivalences, Ramsey rules, and alternative forms of taxation. Spe-
cial tax provisions, tax incentives, and progressiveivity in taxation in second part of course. S/U or letter grading.

251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Requisite: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning investment in public projects. Differences between social and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment decisions, in second part of course. S/U or letter grading.

252. Economics of Federalism. (4) Lecture, three hours. Theories of perfect games and social organization. Role of government, collective goods, collective defense, local public goods, spillovers, and intergovernmental relations. S/U or letter grading.


254A-254B-254C. Workshops: Public Economics. (4-4-4). Lecture, three hours. Workshops for advanced graduate students. Workshops for advanced graduate students. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U or letter grading.

Industrial Organization


271B. Industrial Organization, Price Policies, and Regulation II. (4) Lecture, three hours. Requisite: course 271A. Study of firm organization and pricing under conditions of less than perfect competition; information costs and advertising; economic and legal analysis of marketing practices such as discrimination, tying, exclusive dealing, territorial arrangements. S/U or letter grading.


262D. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important topics in microeconomics of development, such as health, education, risk coping, savings, credit, and household economics. Discussion of empirical methods. S/U or letter grading.

262F. Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, deadweight loss, public expenditure, income taxation and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other insurance programs. S/U or letter grading.

C266A-C266B-C266C. Seminars: Labor Economics. (4-4-4). Seminar, three hours. Dedicate to 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 advanced graduate students. Concurrently scheduled with courses C176A-C176B-C176C. S/U (C266A) and S/U or letter (C266B, 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. Presentation of work-in-progress or background material for proposed thesis topics, to be discussed and critiqued by faculty and fellow students. Research paper or research paper required. S/U or letter grading.

International Economics


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-rate evaluation criteria; applications to highway, electricity, and irrigation projects. S/U or letter grading.

287A-287Z. Topics in Development Economics. (4 each). 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.


287B. Economic Development in East Asia. (4) Lecture, three hours. Recent economic history of East Asia, focusing on postwar development of Japan, Korea, and China. Emphasis on role of international investment and trade, especially in area's economic development. May be repeated for credit. S/U or letter grading.

287C. Topics in Economic Development. (4) Lecture, three hours. Designed for graduate students. Topics in monetary and exchange rate policy in developing countries. Students expected to develop analytical tools and underlying policy issues. May be repeated for credit. S/U or letter grading.
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Christina A. Christie, Ph.D.
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Linda P. Rose, Ph.D.
Eugene Tucker, Ed.D.
Richard L. Wagoner, Ph.D.

Scope and Objectives
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 Ph.D., an Ed.D., or a master’s
degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Undergraduate Study

Education Studies Minor

The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) provide an analysis of current educational practices by which UCLA students can become better consumers of educational services as future parents, taxpayers, and citizens.

To enter the minor, students must have completed one minor course from the approved course list, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an application with the Office of Student Services, 1009 Moore Hall, to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) provide an analysis of current educational practices by which UCLA students can become better consumers of educational services as future parents, taxpayers, and citizens.

To enter the minor, students must have completed one minor course from the approved course list, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an application with the education studies academic adviser in the Office of Student Services, 1009 Moore Hall, to address the diverse information needs of the UCLA undergraduate community to (1) allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, (2) understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, (3) provide an introductory course sequence for students who wish eventually to pursue careers in education either as teachers or researchers, and (4) provide an analysis of current educational practices by which UCLA students can become better consumers of educational services as future parents, taxpayers, and citizens.

Graduate Degrees

The Department of Education offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Education, Master of Education (M.Ed.) degree, Doctor of Education (Ed.D.) degree, Doctor of Philosophy (Ph.D.) degree in Special Education (with California State University, Los Angeles), and Doctor of Education (Ed.D.) degree in Educational Administration with UC Irvine.

One articulated degree program (Education M.Ed./Latin American Studies M.A.) and one concurrent degree program (Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.) are also offered.

Education

Lower Division Courses

10. Introduction to Humanities, Social Sciences, and Scientific Inquiry. (4). Lecture, 30 hours; laboratory, eight hours. Introduction to range of critical concepts in humanities, social sciences, and hard sciences. Use of multicultural texts that represent variety of genres and disciplines to develop critical reading and writing skills. Development of scientific inquiry skills relevant to study of mathematics and science in medical professions. Weekly compositions, critical thinking journals, and participation in laboratory experiments. Application of these concepts to critical issues facing migrant farmworker communities and similar groups throughout state and country; with focus on issues such as identity, language, culture, and central social, health, and educational issues facing Latino community. Offered in summer only. P/NP or letter grading.

80. Understanding Collegiate Experience. (4). Lecture, three hours; discussion, 90 minutes. Designed to help students better understand their experience within college environment by learning about research that has been done on college students and impact of college. Examination of diverse issues ranging from reasons why students go to college and how students are ultimately influenced by college experience. Letter grading.

85A-85B-85C. Evaluation for Practitioners. (1-1-2). Tutorial, one hour. Provides participating Student Initiated Access Center (SIAC) program staff with basic understanding of evaluation skills. Students learn how to describe programs in terms of inputs, activities, outputs, and outcomes and are able to frame relevant and measurable evaluation questions based on program needs. P/NP grading.


92C. Dynamics of Peer Mentoring. (4). Seminar, three hours. First course in series of three designed to provide experience in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Letter grading.

92D. Development of Peer Mentoring. (4). Seminar, three hours. Requires: course 92C. Second course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on relationship between creativity and presentation. P/NP or letter grading.

92E. Evaluation of Peer Mentoring. (4). Seminar, three hours. Requires: course 92D. Third course in series of three designed to provide proficiency in learning principles and procedures relevant to peer mentoring. Undergraduate students present College of Letters and Science academic support workshops to their peers with intent of enhancing academic and career perspectives. Concentration on program assessment. P/NP or letter grading.

92F. Academic Success in Undergraduate Experience. (2). Lecture, one hour; discussion, one hour. Designed for first-year or transitioning students to promote understanding of factors involved in making adjustments to college experience, both academic and social. Letter grading.

98. Critical Issues in Education. (4). Seminar, 30 minutes; laboratory, 30 minutes. Introduction to critical educational issues and approaches taken by researchers, policymakers, and education advocates as they respond to these issues. Portion of course engages students in small research groups where they acquire background on particular issue of interest, learn about social sciences research, and conduct mini-research projects. May be repeated for credit. Letter grading.

Upper Division Courses

M102. Mexican Americans and Schools. (4). Same as Chicana and Chicano Studies M102.) Seminar, four hours. Examination of historical and empirical aspects of Chicana/Chicana educational issues in U.S., with special emphasis on disenfranchising effects of race, gender, class, and immigrant 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.

M103. Asian American Education and Schooling. (4). Same as Asian American Studies M114.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific Islander educational experiences. Letter grading.

M104. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4). (Same as Arts and Architecture M102.) Seminar, three hours; outside study, nine hours. Introductory course with focus on arts education for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

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 social economic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background, class, race, and gender affect educational attainment 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.

M112. Inner and Outer Worlds of Children: Social Policies. (4). (Same as Honors Collegium M112.) Seminar, four hours. Practices and analysis of social policies impacting on children. Topics include assess-
ment, social justice and geographical space, temporal orientation, and classical theories of adolescent de-
velopment. Letter grading.

118. Literacy in Society. (5), Lecture, four hours. Lit-
eracy plays significant role in cognition and language, political governance and law, and economic, social, and personal well-being. Exploration of these aspects of literacy results in applications for teaching and learning. Examination of literacy in workplace, health-
care, and community. Consideration of new literacies, interrelationship between literacy and technology, and impact of illiteracy on income and opportunity. Letter grading.

120. Early Childhood Development. (5), Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children’s psychological development, with emphasis on per-
sonal, social, and emotional attributes of preschool and elementary school child. Aspects of prosocial be-
havior and aggression. Enhancement of prosocial be-
havior and modification of such negative behaviors as aggression. Review and evaluation of contemporary educational programs for promoting positive social behaviors in elementary schools. Methodological as-
psects of conducting educational research. Overview of early child-
hood education and issues related to role of family, school, and television in child development. Letter grading.

121. Introduction to K-12 Issues in American Pub-
ic Education. (5), Seminar, four hours. Examination of American schooling experience (K-12) and analysis of various school and social policies that impact on children and adolescents. Systematic examination of major participants in American school process (parents, students, teachers, geographical space of school environment, school organizations, and so-
ciety) and their roles and the consequences associated with American schooling experience. Discussion of contemporary themes such as risk behaviors, SAT controversy, high school exit examinations, social promotion, technol-
ogy, and psychosocial development of children, school reform, equal educational opportu-
nity, affirmative action, and educational assessment. Letter grading.

122. Perspectives on American College. (5), Sem-
inari, four hours. Examination of role colleges and uni-
versities play in larger cultural life of U.S. society. Use of analysis of student movements as vehicle for ex-
ploration of key sociological, political, and cultural de-
velopmental issues. Emphasis on interrel-
ated research, academic, social, and policy issues underlying diverse system of higher education. 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 socioeconomics and context and discussion of some phil-
osophical questions that challenge teaching profes-
sion. Letter grading.

C124. History of Higher Education. (5), Seminar, four hours. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media. Concurrently scheduled with course C209A. Letter grading.

C125. Politics of Education. (5), Lecture, two hours; discussion, two hours. Political dimensions of educa-
tion institutions as organizations. Relationships be-
 tween education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

C126. Educational Anthropology. (5), Seminar, four hours. Research seminar designed to familiarize stu-
dents with discipline of anthropology and subfield of anthropological education. Exploration of concept of culture, anthropological perspec-
tives, with focus on theories of culture, cultural trans-
mission and acquisition, and cultural reproduction and production for understanding schooling and its outcomes. Examination of research methodologies in anthropology, as well as critical historical overview of discipline and current debates and dilemmas of doing, anthropological research in educational settings. Is-
sues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and method to educational research and re-

127. Educational Psychology. (5), Lecture, two hours; discussion, two hours. Exploration of theory and methods to educational practice and re-
search. Analysis of effectiveness of organizations and/or poli-
cies to understand effects of change and adapta-
 tion. Focus of adolescent development to be psychosocial in nature. Understanding of how one’s identity, personal developmental, and relation-
ships with other individuals and society at large. Study of psychological and education theories that apply to teaching adolescents (e.g., women and adolescents of color), as well as those that are relevant to population of youth at large. Letter grading.

128. Education and Law. (5), Seminar, four hours. Research seminar providing overview of high-profile legal controversies that shape so many policy de-
bates at both K-12 and higher education levels. Major are-
as include: legal context of educational reform and re-
sources, education law and policy, educational equity, and public policy right to equal educational opportunity, and Internet-related issues and concerns. Letter grading.

130. Race, Class, and Education Inequality in U.S. (5), Seminar, two hours; discussion, two hours. Focus on understanding educational experi-
ences of following groups in U.S.: African Americans, Asian Americans and Pacific Islanders, Chicaros/Chi-
canos/Latinas/Latinos, and low-income white Ameri-
cans. Examination of how historical development of public education in U.S. has influenced its present-

131. Issues in American Education: Perspectives from History and Popular Culture. (4), Seminar, four hours; fieldwork, three hours. Research seminar focusing on different kinds of texts to illuminate critical issues in American sec-
ondary education. Issues include transformation in secondary education from 1890 to present, politics of educational opportunity and equality, and political and social representations of secondary education. Letter grading.

132. Education of Exceptional Individuals. (5), Seminar, four hours; fieldwork, two hours. Research seminar focusing on characteristics and re-
lated educational needs of students (elementary through high school age) who vary exceptionally from normal in mental, physical, psychological, and social characteristics. Exploration of roles of disabilities and area of gifted/talented education. Emphasis on edu-
cational implications; legal, social, and philosophical issues also addressed. Letter grading.

133. Topics in Child Development and Social Poli-
cies. (5), Seminar, four hours; fieldwork, two hours. Research seminar designed to enable students to (1) gain basic understanding of ways in which public pol-
cies are established and implemented, (2) learn about policy processes, and major social and historical forces in shaping public policies relating to children and youth in society, and (3) use scientific research on children’s cognitive and social development to evaluate and understand effects of social and economic policies. Letter grading.

134. Educational Leadership, Organizational Theo-
ry, and Policy. (5), Seminar, four hours. Designed for students interested in developing understanding and appreciation for breadth of leadership theories and para-
theses in education, including traditional, entrepre-
neural, behavioral, and relationship-based models. Analysis of effectiveness of organizations and/or poli-
cies through case studies of educational develop-
ment of personal leadership profile in context of alter-
native models of leadership relevant to education. Letter grading.

135. Introduction to Educational Inquiry. (5), Sem-
inari, five hours. Limited to juniors/seniors. Introduc-
tion to educational inquiry, with special attention to dif-
ferent ways of conducting research in field of edu-
cation. Focus on different ways authors have concep-

137. Public Policy in Higher Education. (5), Lecture, four hours. Introduction to range of contemporary and ongoing higher education public policy issues, and conceptual and theoretical frameworks typically used to understand them. Development of fluency in public policy language, with focus on national, state, and in-
stitutional policy issues. Letter grading.

138. Critical Pedagogy and Cultural Studies in U-
ber Education. (5), Lecture, two hours; discussion, two hours. Consideration of potential of conceptual and methodological work in critical pedagogy and cultural studies to reform, contemporary chal-
len ges faced in urban education today. Study of theory and research of critical pedagogists such as Paulo Freire, Peter McLaren, and others. Letter grading.

139. Educational Program Evaluation. (5), Seminar, four hours. Stages and methods for conducting eval-
uations of educational and social programs, with em-
phasis on evaluation approaches that are theoretically grounded, methodologically rigorous, practical, and useful. Letter grading.

140. Time and Behavior in Educational Organiza-
tions. (4), Seminar, three hours. Designed for juniors/ seniors. Exploration of psychosocial perspective of how temporal orientation and time investments im-
pact and shape human behavior, with specific em-
phasis on educational issues related to school reform, teen pregnancy, school violence, teacher burnout, teacher midlife crisis, cultural diversity, information-seeking behaviors, and academic attainment. Letter grading.

141. Writing to Learn: Teaching Writing in Ele-
mentary and Secondary Schools. (4), Seminar, four hours. Ways to teach writing at elementary and secondary level through examination of related concepts of ideas, evidence, part, and whole, and writing process. Emphasis on how reading, writing, and making ex-
cises engage students and lead them to develop their own ideas. Letter grading.

142. Reflections of Education Abroad Program Study. (4), Seminar, two hours; activity, two hours. Designed to provide returned Education Abroad Pro-
gram (EAP) students with structured opportunity to deepen their reflections on their time abroad through contact with literature, academic articles, and speakers. Provides EAP reciprocity students with op-
portunity to analyze their transition to UCLA and al-
lows both returned and reciprocity students chances to learn through service learning.

143. Understanding Pathways to College. (4), Lec-
ture, two hours; discussion, two hours. Examination of inequality across K-12 and higher education to un-
derstand how college admissions are stratified across race, class, and gender. Focus on educational path,
nequalities, and higher education admissions, families, and students in promoting equal educational opportunity. Course is good preparation for students interested in working in UCLA programs such as Outreach Programs that serve students in Los Angeles area schools. Letter grading.

144. Advanced Undergraduate Research Seminar. (4), Seminar, four hours. Limited to juniors/seniors. Advanced independent skills course of joint interest to professor and student. Research topics deal with
K-12 American educational experience, with specific emphasis on diversity, assessment, technology, at-risk, geographical space, and psychosocial development of children. Letter grading.

M145A-M145B. Restoring Civility: Understanding, Using, and Resolving Conflict. (4-4). (Same as Chicana and Chicano Studies M174A-M174B.) Lecture, one hour; discussion, two hours. Course M145A is enforced requisite to M145B. Designed for students who want to learn principles of dialogue and mediation, as alternatives to violence, and practice how to apply these skills in settings. In Progress (M145A) and letter (M145B) grading.

M145C. Alternatives to Violence: Peer Mediation in Public Schools. (4). (Same as Chicana and Chicano Studies M174C.) Lecture, one hour; fieldwork, three hours. Required of juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLAs. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application, review of literature from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

Research Apprenticeship in Peer Counselor Training. (4). Seminar, four hours. Limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and development of understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

Research Apprenticeship in Peer Advising and Leadership. (4). Seminar, four hours. Enforced requisite: course M146A. Limited to juniors/seniors. Highly interactive course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

M148. Women in Higher Education. (4). (Same as Chicana and Chicano Studies M174A.) Lecture, one hour; fieldwork, three hours. Required of juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLAs. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through biweekly meetings, and final journal entry. Application, review of literature from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

M146A. Research Apprenticeship in Peer Counseling. (4). Seminar, four hours. Limited to juniors/seniors. Highly interactive, student-centered course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

M146B. Research Apprenticeship in Peer Advising and Leadership. (4). Seminar, four hours. Enforced requisite: course M146A. Limited to juniors/seniors. Highly interactive course designed to provide hands-on experience in academic peer advising and leadership and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Letter grading.

M147. Lesbian, Gay, Bisexual, and Transgender Issues in Education and Law. (4). Lecture, four hours. Lesbian, gay, transgender-related conquests that arise in schools, colleges, and universities today and how they are being addressed by legal and educational communities. In particular, examination of real-life scenarios of current laws and exploration of what might be done to make things better for all persons. Letter grading.


149. Innovation and Social Entrepreneurship in Education. (5). Lecture, two hours; laboratory, two hours. Exploration of various types of charter schools as well as alternative methods for social change. Examination of in-depth social entrepreneurship, its theoretical constructs, and its application to charter schools as social enterprises. Letter grading.

Student Development in Theory and Practice. (2). Seminar, two hours. Introduction to field of student affairs and contribution of student development theory. General overview of various student affairs functions and programs, along with key theories that inform practice. Letter grading.

Student Development in Theory and Practice: Strategic Career Decision Making. (2). Seminar, two hours. Importance of making informed career decisions and understanding how cultural and values played a role in career development process. Through interactive lessons and projects, development of strategies to anticipate and effectively deal with lifelong challenges such as work/life balance, career fulfillment, and career transitions. P/NP grading.

C160. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4). Seminar, four hours. Topics include social psychology of intergroup relations, intercultural and dialogic communication theories, and building facilitation skills in schools and communities, research and evaluation of intergroup dialogues and other educational interventions for improving intergroup relations, and core competencies for planning, delivery, and evaluating intergroup dialogues in multicultural settings. While providing foundational grounding in theory and pedagogy of intergroup dialogue, particular attention to relationships between ethnocentrism, structural inequalities, systems of privilege and oppression, and mental health outcomes and disparities among populations. Concurrently scheduled with course C244. Letter grading.

Policy Analysis and Real Politics of Education. (3). Lecture/discussion, three hours. Exploration of relationship between scholarly policy analysis and actual workings of policy systems. Selected topics include: legislative, administrative, school finance, equal access to education, and school reform. Letter grading.

Race and Education: Access, Equity, and Achievement. (5). Seminar, four hours. Social/pedagogical perspectives of particular attention to race, ethnicity, and inequality. Study of structural, social, and personal determinants of educational outcomes. Consideration of relationships of schools to social context and other societal institutions. Examination of how education sets life trajectories in America and effects of race/ethnicity on access to educational opportunity in our society. Letter grading.

170A. Experiential Learning: Community-Based Outreach Programs. (2). Fieldwork, four hours. Enforced corequisite: course 192A. Training and supervised practice for undergraduate students interested in raising their academic achievement and that of high school and middle school students. Letter grading.

170B. Experiential Learning: America Reads. (2). Fieldwork, four hours. Enforced corequisite: course 192B. TB test required prior to first day of instruction. Training and supervised practice for undergraduate students, including tutoring and mentoring of K-3 students. Letter grading.

CM176. Critical Media Literacy and Politics of Gender: Theory and Production. (4). (Same as Gender Studies CM176.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and production of 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 CM176B. Letter grading.

CM176L. Critical Media Literacy and Politics of Gender: Laboratory. (2). (Same as Gender Studies CM176L.) Laboratory, two hours. Corequisite: course CM178L. Hands-on production experience as integral component of course CM176B. Concurrently scheduled with course CM176B. Letter grading.

M182A. Language, Literacy, and Human Development. (4). (Same as African American Studies M182A.) Fieldwork, three hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M182B. Language, Literacy, and Human Development. (3). (Same as African American Studies M182B.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183A. Language, Literacy, and Human Development. (3). (Same as African American Studies M183A.) Fieldwork, six hours. Enforced corequisite: course M194A. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183B. Culture, Gender, and Human Development Ethnography. (3). (Same as African American Studies M183B.) Fieldwork, six hours. Enforced corequisite: course M194B. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

M183C. Culture, Communications, and Human Development Ethnography. (3). (Same as African American Studies M183C.) Fieldwork, six hours. Enforced corequisite: course M194C. Students visit after-school site on weekly basis and use ethnographic methods to document learning. Opportunity for students to connect theories of development and language and literacy learning with practice. Letter grading.

Community Service Learning for Academic Achievement. (4). Lecture, six hours; fieldwork, two hours. Must be taken prior to course 192A. 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. P/NP or letter grading.

M196. School Rights and Unequal Education. (4). (Same as Political Science M183 and Public Policy M186.) Lecture, four hours. Exploration of contradictions between American beliefs about equal opportunity and racial equality and inequalities that exist in public education. Three major topic areas in education as vehicles for understanding philosophical and empirical complexities of issues surrounding equality in American education and life. Examination of issues from sociological, political, and economic perspectives. Arguments range from Martin Luther King to Ronald Reagan, and legal cases include Plyessey versus Ferguson to Brown versus Board of Education, as well as cases still pending in court. Letter grading.

Variable Topics in Education. (5). Seminar, five hours. Limited to juniors/seniors. Variable topics course organized around disciplinary knowledge central to development of core understandings of educational and learning processes, phenomenon, policies, methods, and instruction. Development of culminating project. Consult with advisor topics and instructors. May be applied as core credit for Education Studies minor students. May be repeated three times for credit. Letter grading.

Arts Education Undergraduate Practicum: Production and Observation. (2). (Same as Arts and Architecture M192.) Seminar, three hours. Enforced corequisite: course M104. Limited to juniors/ seniors. Training and supervised practice 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.
M190SL. Arts Education Undergraduate Practicum and Capstone Project. (4). (Same as Arts and Architecture M192SL) Seminar, three hours; practical, three hours; outside study, six hours. Enforced requisites: courses M104, M180. 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 the guidance of the training and supervised guiding teachers in K-12 public school settings. May be repeated for credit with consent of instructor. P/NP or letter grading.

191A-191X. Current Issues in Education. (4 each). Seminar, two hours. Emphasis on current issues, topics and instructors. May be repeated for credit. Letter grading.

192A. Undergraduate Practicum in Community-Based Outreach Programs. (2), Seminar, two hours. Required of all students. Recommended to juniors/seniors. Enforced corequisite: course 170A. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to study learning and developmental factors as well as cultural, social, and environmental factors that affect student academic achievement. Exploration, testing, and application of various learning styles that enable students to become more effective learners. Letter grading.

192B. Undergraduate Practicum in America Reads. (2), Seminar, two hours. Enforced corequisite: course 170B. Limited to juniors/seniors. TB test required prior to first day of instruction. Training and supervised practicum for advanced undergraduate students that provides opportunity to reflect on both content and experience pertaining to America Reads sites. May be repeated for credit. Letter grading.

193Y-193Z. High School Advising Program. (4-4). Discussion, two hours; fieldwork, five hours. Service learning courses designed to provide students with information and techniques sufficient to allow them to undertake academic advising in low socioeconomic high schools. Letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars. (5). (Same as African American Studies M194A) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182B or M183B. 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. May be taken independently for credit. Letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars. (5). (Same as African American Studies M194B) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182B or M183B. 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. May be taken independently for credit. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminars. (5). (Same as African American Studies M194C) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course M182C or M183C. 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 technology. May be taken independently for credit. Letter grading.

195. Community Internships in Education. (4). Tutorial, one hour; fieldwork, eight to 10 hours. Internship in the arts community to be supervised by Center for Community Learning and faculty sponsor. Students meet biweekly with teaching assis-

tant, 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. Limited to juniors/seniors. Internship in supervised preapproved K-12 settings coordinated through Center for Community Learning. Students meet on regular basis with faculty sponsor or designee to construct series of reading and writing assignments that examine educational issues related to meaningful work. Students are expected to learn ways in which urban schools are structured, organized, and operate. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

196C. Instructional Apprenticeship in Teaching and Learning at UCLA Lab School. (4), Tutorial, 10 hours. Limited to juniors/seniors. Training and supervised apprenticeship for advanced undergraduate students at UCLA Lab School (Corinne A. Seeds campus). K-8 elementary school on UCLA campus. Students gain 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. May be repeated for credit. Individual contract required. Letter grading.

196D. Instructional Apprenticeship through UCLA Lab School Community Education Partners. (4), Tutorial, 10 hours. Limited to juniors/seniors. Introduction to K-12 teaching profession through training and supervised off-campus experiences at UCLA partner schools (Nora Perry Elementary School, Brookton Elementary School, Emerson Middle School, University High School, UCLA Community School, or other LAUSD schools to be coordinated by students). 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. May be repeated for credit. Individual contract required. Letter grading.

196R. Research Apprenticeship in Education. (2 to 4). Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Education. (2 to 4). Tutorial, one hour; fieldwork, eight to 10 hours. Enforced corequisite: course 200B or 200A. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Asigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Education. (2 to 4). Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Historical Research and Writing. (4). Lecture, four hours. Methods of historical research and writing for students who are or who will be engaged in research and in report or paper or thesis writing, regardless of their field of specialization. May be repeated for credit. Letter grading.

200B. Survey Research Methods in Education. (4). Lecture, four hours. Requisite: course 230A. Problems of conceptualization, organization, and gathering nonexperimental and quasi-experimental quantita-
tive and qualitative data. S/U or letter grading.

200C. Analysis of Survey Data in Education. (4). Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of pro-
cessing and analyzing nonexperimental and quasi-ex-
perimental quantitative data. S/U or letter grading.


201C. History of American Education. (4). (Same as History M264.) Discussion, three hours. History of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relation between educational thought and practice and of American education today. S/U or letter grading.

202. Evaluation Theory. (4). Lecture, four hours. Prevailent evaluation theories, systems for categorizing theories, and productive uses of develop-
ment in educational evaluation. S/U or letter grading.

203. Educational Anthropology. (5). Seminar, four hours. Research seminar designed to familiarize stu-
dents with discipline of anthropology and subfield of comparative and cross-national studies in education. Exploration of concept of culture through various anthropological perspec-
tives, with focus on theories of culture, cultural transmission, and acquisition, and cultural reproduction and production for understanding schooling and its outcomes. Examination of research methodologies in anthropology, as well as critical historical overview of discipline and current debates and dilemmas of doing anthropological research in educational settings, is-
suces of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and re-
search. Concurrency scheduled with course C126. Letter grading.

204A. Introduction to Education and Social Science.

204B. Introduction to Comparative Education. (4). Lecture, four hours. Exploration of international and methodological questions underlying comparative edu-

cation. 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 dependency, Marxist, neo-Marxist, liberation theory, and world-system theories of change and development) and changing notions of role of education in develop-
ment of less-industrialized countries of world. S/U or letter grading.

204D. Minority Education in Cross-Cultural Perspec-
tive. (4). Lecture, four hours. Historical and con-
temporary analyses of social issues with regard to ethnicity, religion, and linguistic minorities through selected national and international case studies. Introduction to cross-cultural education in representative countries in relation to social, political, and economic systems. S/U or letter grading.

204E. International Efforts in Education. (4). Lect-

ture, four hours. Designed for graduate students. Crit-
ical analysis of complex world of “development coop-
eration,” with particular emphasis on globalization and multilateral efforts in education. S/U or letter grading.

204F. Nonformal Education in Comparative Per-

tive. (4). Lecture, four hours. Comparative and interna-
tional study of organized and systematic edu-
cational activity for children, youth, and adults carried

on outside of schools. Types of programs include, among others, consciousness raising, community ac-
tion, skills training, literacy, and extension programs. S/U or letter grading.

205. Computers in Educational Process. (4). Lecture, four hours. Introduction to theory, experimenta-
tion, evaluation, and future of computer systems in education with emphases on computer assisted in-
struction (CAI), and use of computers to teach pro-
gramming and to foster development of writing, com-
putational, and filing skills. 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 policy, content, methods, and values. S/U or letter grading.

C207. Politics of Education. (5). Lecture, two hours; discussion, two hours. Political dimensions of education institutions, developments. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation; and focus on Freirean pedagogy. Concurrently scheduled with course C125. S/U or letter grading.

208A. Perspectives on Sociology of Education. (4). Lecture, four hours. Sociological perspectives on current issues in educational policy and practice, including desegregation, decentralization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208B. (Im)Migrant Youth, Ethnicity, and Education. (4). Seminar, four hours. Exploration of experiences of immigrant youth in U.S. schools, with focus on language, culture, and educational equity in urban settings. Letter grading.

208C. Explanation in Social Sciences and Educational Research. (4). Lecture, two hours; discussion, two hours. Lecture and discussion of basic strategies and forms of explanation relevant to inquiry in education from vantage point of various social and behavioral sciences disciplines. S/U or letter grading.

C209A. History of Higher Education. (5). Seminar, four hours. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher education, and role of professionals. Concurrently scheduled with course C124, S/U or letter grading.

209C. Research and Evaluation in Higher Educa- tion. (4). Lecture, four hours. Development of conceptual and practical understanding of research and evaluation in higher education. Topics include basic statistics, survey design, data analysis, assessment issues, and research proposal writing. Letter grading.

210. Education as Profession: Theory, Research, and Practice. (4). Lecture, 90 minutes; discussion, two and one-half hours. Introduction to major issues and approaches in educational research through series of faculty presentations, selected readings, and writing assignments. Letter grading.


211C. Advanced Item Response Theory. (4). Lecture, four hours. Requisites: course 211A or 211B or Psychology 255A, Psychology 255B. Review of standard item response theories involving different distributional models, multiple group models and models with covariates, item and person parameter estimation, differential item functioning analysis, testing model fit, linking and equating, computerized adaptive testing. 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.


213C. Group Counseling Theory and Process. (4). Lecture, three hours; discussion, one hour. Requisite: counseling (M210 or M211) or permission of instructor. Focus on theory and practice of group counseling with emphasis on group formation, processes, group dynamics, and group facilitation. S/U or letter grading.

213D. Assessment in Counseling and Student Af- fairs. (4). Lecture, four hours. Overview of assessment issues and methods used in counseling and student affairs. Topics include various tools for assessment and evaluation in higher education. Topics include basic psychoeducational tests of cognitive abilities (e.g., attention, memory, learning), personality assessment, academic achievement assessment, and evaluation. S/U or letter grading.


214C. American Professoriate: Faculty Status, Role, and Performance. (4). Seminar, four hours. Focus on historical aspects of the American professoriate, and role of professionals in academic culture, teaching and research, reward structure, faculty development. Letter grading.


217A. Social Development and Education. (4). Formerly numbered M217A. Seminar, four hours. Biographical and social psychology of children; development in context of current research and theory. 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. Emphasis on work of Piaget and Vygotsky, and relation of this work to issues in educational practice. S/U or letter grading.


217D. Language Development and Education. (4). Lecture, four hours. Research and theory on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectical issues. S/U or letter grading.

217E. Emerging into Adulthood. (4). Seminar, four hours. Examination of theories and research related to transition to adulthood and role of family, gender, and immigration status in shaping development. Topics include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering workforce; alternative pathways (incarceration and military); and civic engagement. Letter grading.

M217F. Adolescent Development. (4). Same as Psychology M217F. Four hours. Designed for graduate students. Review of current research on physical, cognitive, social, and psychological development during second decade of life. Topics include psychological development, changing relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.


218. Measurement of Educational Achievement and Aptitude. (4). Lecture, four hours. Requisite: course 230A. Critical study of tests of achievement and aptitude, with emphasis on group tests; relation of achievement to aptitude; social implications of measurement of intelligence; elements of validity and reliability. S/U or letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4). Laboratory, four hours. Provides advanced training in design of research and execution of data to advanced students from other divisions. Coverage of special topics not included in other courses on research methods. S/U or letter grading.


222A. Introduction to Qualitative Methods and De- sign 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. Advanced Literature 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. Special topics course on some field or aspect of qualitative inquiry. Topics may include classical, advanced, ethnographic writing and/or multimedia design, discourse analysis, and microethnography of social interaction. S/U or letter grading.

224. Problems and Issues in Bilingual and Multicultural Education. (4). Lecture, two hours; discussion, two hours. Introduction to development and implementation of bilingual and multicultural programs in U.S. Analysis of program goals, models, typologies, and effectiveness. 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 application of educational, psychological, and social issues for exceptional individuals; consideration of commonalities and differences among exceptional individuals. S/U or letter grading.

225B. Advanced Issues in Education of Exceptional Individuals. (4). Lecture, four hours. Synthesis of developmental and educational theory relevant to study of exceptional individuals, including consideration of historical context of current research and applied issues in special education. S/U or letter grading.

226. Seminar: Special Topics in Writing, Rhetoric, and Educational Methodology. (4), Seminar, four hours. Special topics seminar in writing in education that covers research on applications of writing about education, social and political dimensions of it, its variation by discipline, and its uses in professional and public contexts. Letter grading.

227A. Research on Learning Characteristics of Exceptional Individuals. (4), Lecture, four hours. Requisite: course 225B. Overview of research and theory regarding learning characteristics of exceptional individuals and discussion of application of this work to educational practice. S/U or letter grading.


227C. Research on Behavioral and Social Characteristics of Exceptional Individuals. (4), Lecture, four hours. Requisite: course 227B. Analysis of social and emotional development of exceptional individuals and development of social competence in special education programs. S/U or letter grading.

228. Observation Methods and Longitudinal Studies. (4), Lecture, two hours; discussion, two hours. Requisite: course 230A. Design of observational and longitudinal studies; study of selection concerns influencing children’s development. Conduct of observations; processing and analysis of data. Use of portable computers for recording observations. 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 hypoth- eses for research programs on division topics and issues. Letter grading.


230B. Linear Statistical Models in Social Science Research: Linear Regression Analysis. (4), Lecture, four hours. Requisite: course 230A or passing score on screening examination. Solid and comprehensive training in regression-based methods for analyzing quantitative social science data. Letter grading.


231C. Analysis of Categorical and Other Nonnormal Data. (4), Lecture, four hours. Requisites: courses 230B, 230C. Regression analysis with dichotomous and polytomous dependent variables, logistic regression, decision rules for association for categorical variables, factor analysis, and structural equation modeling. Letter grading.


M231E. Statistical Analysis with Latent Variables. (4), (Same as Statistics M244.) Lecture, three hours. Requisites: courses 231A, M231B. Extends path analysis (causal modeling) by considering models with measurement errors and multiple indicators of latent variables. Confirmatory factor analysis, covariance structure modeling, multigroup analysis, identification, estimation, testing, and model building considerations. Letter grading.


233. Professional Writing in Education. (4), Lecture, four hours. Intended to assist in professional development as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.


235. Law and Urban Education. (4), Lecture, four hours. Examination of recent legal controversies that measure the ability of urban schools to meet needs of students in multicultural society, with special emphasis on such equity-related issues as desegrega- tion, school finance, standardized testing, and rights of language minority students. Letter grading.

236. Human Abilities. (4). Lecture, four hours. Comparative study of national systems of higher education: their division of work, basic values, structures of authority, modes of national integration, and types of change. S/U or letter grading.

237. Organization and Governance of Educational Systems. (4), Lecture, four hours. Academic organizations, precolligate and postsecondary, are most appropriately studied by history of institutionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and policy making. S/U or letter grading.

238. Cross-National Analysis of Higher Education. (4), Lecture, four hours. Comparative study of national systems of higher education: their division of work, basic values, structures of authority, modes of national integration, and types of change. S/U or letter grading.

239. Immigration and Children’s Education. (4), Seminar, four hours. Examination of immigrant child and youth experience, with primary focus on educational outcomes. Topics include historical changes in experiences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic statuses, and experiences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic statuses.

240. Immigrant Children and Education. (4), Seminar, four hours. Examination of immigrant child and youth experience, with primary focus on educational outcomes. Topics include historical changes in experiences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic statuses.

241. Research Methodology in School Administration. (4), Lecture, four hours. Examination of research problems and strategies in school administration. S/U or letter grading.


244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4), Seminar, four hours. Topics include social psychology of intergroup relations, intercultural and dialogic communication theories, methods for reconciling and bridging differences in schools and communities, research and evaluation of intergroup dialogues and other educational methods for improving social competencies, and core competencies for planning, delivering, and evaluating intergroup dialogues in multicultural settings. While providing foundational grounding in theory and pedagogy of intergroup dialogue, attention to relationships between intergroup dynamics, structural inequalities, systems of privilege and oppression, and mental health outcomes and disparities among populations. Concurrently scheduled with course C160. Letter grading.

246A. Decision Analysis and Advanced Computer Methods in Education Policy and Planning. (4). Seminar, four hours. Requisite: course 242. How information technology and decision analysis impact K-12 schooling, higher education, and technical training/writing 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.

247. Special Topics in Law and Educational Policy. (4). Lecture, four hours. Policy-based inquiry with focus on specific law-related debates that inevitably influence both K-12 and higher education communities. Identification of strategies that have been successfully employed by those who have sought to use law to shape educational policy. Letter grading.

248. Seminar: Special Topics in Child Development and Education. (4). Seminar, four hours. Content varies, limited to 12 students, and set by individual instructor. S/U or letter grading.

250A. Fundamentals of U.S. Higher Education System. (4). Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this discipline, with emphasis on underlying social and political issues that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4). Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this discipline, 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 theories used to analyze institutions and issues of contemporary higher education. Examination 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 Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education, with focus on educational environments, organizations, and curricula and instruction. Letter grading.

253A. 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, Marcuse, 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. Contempory issues in educational systems, including questions of access and equity, quality and efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education. Letter grading.


253E. Seminar: European Education. (4). Seminar, four hours. S/U or letter grading.

253F. Seminar: Education in Revolutionary Societies. (4). Seminar, four hours. Multidisciplinary and comparative study of socialist educational theory examined through writings of Marx, Lenin, Mao, and others. Implementation of this theory in specific case studies, along with comparative assessments of non-socialist nations. S/U or letter grading.

253G. Seminar: Asian Americans and Education. (4). Seminar, four hours. Basic issues and topics related to Asian Americans in field of education. Examples of issues and topics include Asian Americans in higher education, classroom environment, and community work transition and language question. S/U or letter grading.

253H. Seminar: Chicanos/Hispanics and Education. (4). Seminar, four hours. Basic issues and topics related to Chicans and other Hispanic groups in education. Review of literature on specific educational levels and Chicano/Hispanic student progress (e.g., early childhood, elementary, higher education); specific 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 analytic 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-255C. Seminars: Special Topics. (4-4-4). Seminar, four hours. May be repeated for credit. S/U or letter grading.


255B. Seminar: Special Topics in Development. (4). Seminar, four hours. S/U or letter grading.

256. Seminar: Research in Counseling Psychology. (4). Seminar, four hours. In-depth analysis of selected research approaches/areas in counseling psychology. S/U or letter grading.


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. Introduc- tion to theory and practice of internationalization in U.S. higher education, looking at meaning of concept of comprehensive internationalization across campus, issues of effective leadership and management, and individual aspects of internationalization, including study abroad program development and 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/massive open online courses (MOCOs)/hybrid models. Letter grading.


261E. Higher Education Seminar: Diversity Issues and Research Perspectives. (4). Seminar, four hours. Examination of how racial diversity and its related dynamics have transformed and at same time been reshaped by institutions of higher education, with focus specifically on student experiences, curricula, 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.

262F. Seminar: Research Topics in Bilingual/Multicultural Education. (4). Seminar, four hours. S/U or 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 their methodologies, with a focus especially on feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4). Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to theoretical approaches to teaching reading, such as post-structuralist, feminist, deconstruction, reader reception, and semiotics, and to core ideas of some leading theorists of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak. Letter grading.

269. Representations of Education in Cinema. (4). Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we narrate on diverse “texts,” particularly films set in or around schools, to illuminate contemporary issues in American secondary education (e.g., issues pertaining to representation of teachers, students, parents, and administrators, and curriculum) in popular films about high school and adolescents. Letter grading.

270. Introduction to Cultural Studies. (4). Lecture, four hours. Investigation of current trends in cultural studies through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical criticism engaging popular artifacts of media culture. Emphasis on developing critical media literacy as goal of cultural studies. Letter grading.

271A. Proseminar: Educational Psychology. (2). Seminar, two hours. Introduction to variety of research methods in field of educational psychology, including topics related to human development, learning and instruction, counseling, and special education, and to different methodological approaches used to study them. S/U grading.

272. Case-Study Research in Education Policy and Practice. (4). Discussion, four hours. Use of case-study methods in education research, providing opportunities for applying methodological skills to actual case-study research problems. Student research on and multiple case studies that investigate issues in education policy and practice. Letter grading.

273A. Structure and Dynamics of Educational Systems. (4). Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American educa-
tion as institutional system wherein federal, state, and local policy, school administration, curriculum theory and design, and teaching are inextricably connected in delivery of education.

273B. Social Foundations of Education. (4), Seminar, four hours. Introduction to literature on multiculturalism and teachings in diverse social, cultural, and economic contexts. Examination of debates over multiculturalism and teaching for democratic citizenship by review of diverse number of anthropological, sociological, educational curricula and literatures. Letter grading.

274. Science, Technology, and Social Research after Eurocentrism. (4), Lecture, four hours. Philosophy of natural sciences for social scientists that examines challenges to conventional research assumptions raised by multicultural and postcolonial science and technology studies that have emerged since World War II. Focus on sciences and technologies in three-world development projects, comparative ethnocentrism movements, 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 American education. Analysis 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 in 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 CM287B. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production, and to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178L. Letter grading.

CM278L, Critical Media Literacy and Politics of Gender: Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

279. History of Urban Schooling. (4), Lecture, four hours. Designed for graduate students. Survey of major events, political and economic forces, and ideas that shaped urban schools since 1860. Examination of changing roles and meaning of education across range of political/ideological perspectives. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6), Seminar, two to six hours. Focus on research and clinical problems in special education. Introduction to theoretical principles and research strategies. Exploration of current topics in field. S/U or letter grading.

280B. Seminar: Exceptional Individuals. (4), Seminar, two hours. Limited to doctoral students. 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 policy levels and how access and equity between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulate throughout education and affects equity in college access. Letter grading.


283. Social Research in Multicultural and Postcolonial World. (4), Lecture, four hours. Philosophy of social science. Seminar, four hours. Focus on how to think critically about two issues: (1) inevitability of nonneutral procedures and results of research conducted within liberal state that must be committed to value-neutrality and (2) challenges that multicultural and postcolonial social theory have raised to conventional research theories and methodologies. 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 streams of critical educational tradition. Letter grading.


M286. Culture, Brain, and Development. (4), (Same as Anthropology M286, Applied Linguistics M286, Neuroscience M286, and Psychology M286), Seminar, three hours. Focus on graduate students' integration of knowledge across different disciplines to understand interrelations of culture, brain, and development, where development includes both human ontogeny and human phylogeny. 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 offered by language variation found in schools. Examination of language acquisition theories along with those of language ideologies, language policies, and multilingualism. Letter grading.

288. Research on Language Issues in Education. (2). Discussion, two hours. Course facilitates mentorship model of training Ph.D. students in education, with focus on development of graduate student research topics. Assignment of credit for these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

M289A-M289B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4), (Same as Political Science M289A-M289B, Public Policy M289A-M289B, and Sociology M289A-M289B), Seminar, four hours. Examination of metropolitan American society and institutions at beginning of 21st century. Focus on reliable information on patterns of settlement, changing functions of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation, changing functions of urban space and interaction to shape opportunity and inequality. Vast economic transformations raised by multicultural and postcolonial science and technology studies that have emerged since 1990s. May be repeated for credit. S/U grading.

M289A-M289B. Research in Education: Persistent Failure, Urgent Challenges. (1 to 2 each), (Formerly numbered 289A-289B) (Same as Law M243A-M243B, Seminar, four hours. Course M289A is en- forced requisite to M289B. Research seminars with focus on what is probably most serious and neglected problem in American educational reform. In past half century our educational progress in preschool and gains in achievement in early grades have been prod- uced, and very well-regarded system of higher education has been established—but reform of high school has failed. Exploration of institutional and policy roots of these problems and assessment of available research on key dimensions to help students launch original research in one related area. Presentations by experts actively involved in high school reform efforts included. In Progress (M289A) and S/U or letter (M289B) grading.

295. Freire, (4), Seminar, four hours. Requisite: course C125 or C207 or prior knowledge of Freire’s work. Analysis of influence of Paulo Freire linked to social context in which it took place. Study of his life and work in five phases: Brazilian Experience (1921 to 1964); Chilean Experience, where he published Education as Practice of Freedom and Pedagogy of Oppressed, as well as other lesser-known works, while also devoting most of this period to empirical research in literacy training (1964 to 1988); his work at Harvard, and then World Council of Churches in Geneva (1970 to 1980), including his consulting with postcolonial revolutionary governments in Africa; his return to Brazil and his work as Secretary of Education of Brazil (1992 to 1995); and his global travels from 1980 until his death in 1997. Focus on work left incomplete before his death (including eco-pedagogy and citizen’s schools), and by implication, his analyses, critiques, and impact in world, his methodology of generative word, and comparisons with other theoretical referents. Letter grading.

296A-296F. Seminars: Research Topics in Education. (2 each). Seminar, three hours. Advanced study and analysis of current topics in education. Discussion of current research and literature in research specialties of faculty member teaching course. S/U grading.

296G. Research Topics in Education: Legal Aspects of Educational Management. (2), Lecture, two hours. Examination and analysis of legal issues, especially as they apply to school organizations. Letter grading.

296H. Research Topics in Education: Organization Theory. (2). Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.

M297. Interdisciplinary Relationship Science. (4), (Same as Anthropology M297A-Sociology M297A), Seminar, four hours. Examination of relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

M298A-M298B. Research in Education: Persistent Failure, Urgent Challenges. (2-2-2), (Same as Anthropology M298A-M298B, Sociology M298A, and Psychology M298A), Seminar, four hours. Examination of multicultural American society and institutions at beginning of 21st century. Focus on reliable information on patterns of settlement, changing functions of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation, changing functions of urban space and interaction to shape opportunity and inequality. Vast economic transformations raised by multicultural and postcolonial science and technology studies that have emerged since 1990s. May be repeated for credit. S/U grading.

290. Educational Policy Analysis: Research, Theory, and Practice. (4), Seminar, four hours. Broad overview of development of educational policy from 1950s to present. Examination of issues and debates within educational policy in U.S. through different theoretical lenses. Exploration of major bodies of research on educational policy and alternative paradigms. Letter grading.
speakers from diverse fields, including anthropology, education, psychology, and sociology. May be repeated for credit. S/U grading.

329A-299B-299C. Research Practicum: Educa-
tion. (4 to 8 each). Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

330. Dissertation Writing Workshop: Interdivisional Seminar. (4). Seminar, one hour; discussion, two hours; laboratory, up to limited enrollment. Introduction for doctoral candidates to dissertation writing as genre that can be analyzed or broken down with its constituent parts and, vice versa, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (2). Laboratory, two hours. Limited to creden-
tial program students. Sequence of laboratory ses-
sions providing preservice teachers with introduction to education technology infrastructure and classroom presentation tools. Introduction to resources and ser-
dices, 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 public health. Topics include

308. Principles and Methods for Teaching Manda-
tine and secondary schools. Expansion of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12 that address needs and interests of di-
verse students. S/U grading.

318B. Integrated Methods for Elementary Teach-
ers. (4). Lecture, four hours. Examination and devel-
oment 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. (4).


320A-320B-320C. Secondary Content and Literacy
Methods. (3–3–3). Lecture, one hour; discussion, one hour; fieldwork, one hour. Examination and develop-
ment of instructional programs and analyses and practices of instructional methods for teaching con-
tent in grades 7-12. Emphasis on interdisciplinary ap-
proach that integrates content areas and infuses liter-
acy, technology, and strategies for second language learners. Methods courses are aligned with California state frameworks and California content standards for grades K-12, including English Language Develop-
ment Standards—all of which address needs and var-
ious interests of diverse students. S/U grading.

327. Principles and Methods for Teaching Spanish Effective-ly. (2 to 6). Lecture, two to six hours. Emphasis on proficiency-based foreign language teaching methods incorporating language assess-
ment skills, modeling, hands-on experiences, and de-

328. Principles and Methods for Teaching Manda-
rin Effectively. (2 to 6). Lecture, two to six hours. Emphasis on proficiency-based foreign language teaching methods incorporating language assess-
ment skills, modeling, hands-on experiences, and de-

330A. Observation and Participation. (2 to 6). Site-
based fieldwork. 10 to 15 hours. Students are as-
signed to school sites with racially, culturally, and lin-
guistically diverse student populations. Throughout observation and participation period, students ana-
lyze effective strategies for achieving learning for all students, including sociocultural approaches and ap-
propriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 8). Site-based field-
work, 10 to 20 hours. Requisite: course 330A. Stu-
dents 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 field-
work, 10 to 30 hours. Requisite: course 330A. Stu-
dents 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 re-
sponsibilities. S/U grading.

330D. Classroom Residency and Teaching. (4). Site-based fieldwork, 40 hours. Students are em-
ployed 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 Ed-
ucation Program to initiate change project in their local school and/or complete case study on project. S/U grading.

330A-390A-390BCC. Seminar, two hours. Analysis of basic principles and con-
cepts of planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of constructivist strategies and their appli-
cation in elementary and secondary schools. Exam-
nation of different methods of computer literacy and teaching subject matter. Students may conduct eth-
ographic inquiry of local community of their design-
ation partnership district. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4). Sem-
inari, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
 sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

390A-390B. Colloquium Series: Psychological
Studies in Education. (1-1). Seminar, one hour. Re-
quired of first- or second-year Psychological Studies
in Education (PSE) Ph.D. students. Training to con-
duct research that has practical implications as well
as theoretical significance within field of applied
human development. Children's cognitive, language,
personality, and social development in educationally
relevant settings such as schools and daycare pro-
grams that use unity approaches. Series addresses is-

340. Structure and Functions of Schools as Com-
plex Organizations. (4). Lecture, four hours. Critical analysis of alternative assumptions about organiza-
tions, how they function, and why people in organiza-
tions behave as they do. Application to special cir-
cumstances of schools and to contemporary issues and problems in school leadership, improvement, and reform. S/U or letter grading.

400. Curriculum Principles and Practices. (4). Le-
cture, four hours. Critical analysis of major concepts, underlying assumptions, policy issues, and processes in development and implementation of curriculum in educational setting. Problems in formulation of pur-
poses, selection of learning experiences, organization of curriculum, and curriculum evaluation. S/U or letter grading.


424A. Social Studies in Curriculum. (4). Lecture, four hours. Advanced study in social studies curriculum development in defining scope and sequence of social studies; critical review of literature on cognitive and affective learning in social science, with emphasis on experimental study of instructional programs. S/U or letter grading.

424B. Reading in Curriculum. (4). Lecture, four hours. Requisite: course 230A. Study of reading curricula and instructional procedures, with emphasis on rationale and research underlying their development and research comparing their effectiveness. S/U or letter grading.

424G. Curriculum Design for Bilingual Educational. (4). Lecture, four hours. Advanced study of curriculum design for bilingual educational programs. Philosophical basis for bilingual programs; theories of teaching and instruction applied to bilingual learner; language assessment; development of instructional component; program evaluation. S/U or letter grading.


426A-426B. Program Development and Program Evaluation in Student Affairs. (2-2). Lecture, two hours. Introduction to program development and planning, as well as to assessment and program review. Development of and in programs that provide support for learning within context of student affairs, as well as knowledge of and skill in developing, implementing, and analyzing assessment projects within student affairs context. Study of basic theoretical perspectives underlying program design/implementation and program review/assessment and application by developing, implementing, and assessing effectiveness of one program. In Progress (426A) and Letter (426B) grading.


433A. Design of Learning Environments. (4). Discussion, four hours. Theory and practice of design of technology-supported learning environments. Examination of how theories of learning guide design and enactment of learning environments in classrooms and informal settings and how research on such environments informs theory and design. Letter grading.

433B. Development of Educational Media. (4). Discussion, four hours. Current issues and trends in design of interactive educational media. Design and development of prototype educational media applications on personal computers; planning and focus on experimental educational media into formal learning settings, or evaluations of specific learning environments. Letter grading.

440C. Administration of Instructional Programs. (4). Lecture, four hours. Examination of current educational problems in society and strategies of their solution through curriculum policy and practice; instructional design and operation; in-service training of teaching staffs. S/U or letter grading.

441A. Instructional Supervision A. (4). Lecture, four hours. Analysis of teaching in light of research-substantiated elements of instruction: task analysis, appropriate objectives, principles that increase motivation, principles of transfer and transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.


442B. Legal Aspects of Educational Management and Practice. (4). Lecture, four hours. Examination of structures and kinds of law governing educational systems in U.S.; constitutional 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 are issues that impact on minorities (e.g., bilingual education, desegregation, affirmative action, role of subordinants in policy-making process). S/U or letter grading.

444B. Building of Educational Opportunity through Desegregation and Finance Case Law. (4). Lecture, four hours. Requisite: course 442B. Concentrated review of definition of educational opportunities, techniques being developed by courts in specific cases concerning desegregation and educational finance. S/U or letter grading.

447. Seminar: Educational Policy and Planning, Special Studies. (1 to 4). Seminar, one to four hours. S/U or letter grading.

448A. Urban School Leadership. (4). Lecture, four hours. Analysis of problems of urban school leader. Emphasis on changing nature of urban principalship, with considerable attention to role of school and community that interact with urban school leaders. S/U or letter grading.

448B. Urban Leadership Laboratory. (4). Lecture, four hours. Analysis of and opportunity to practice human relations skills. Focus on success as urban school leader. Topics include negotiations, conflict resolution, applied computer technology, and effective communication. Activities include gaming, simulation, computer programming, and group dynamics. S/U or letter grading.

450. Leadership Capacity Building. (4). Lecture, one hour; discussion, three hours. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program. Intended to assist students with their communication and leadership capacities. S/U or letter grading.

451. Foundations of Organizations and Leadership. (4). Lecture, four hours. Limited to Educational Leadership Program students. Promotion of understanding of traditional and contemporary conceptions of leadership and organizational theory, with application of these conceptions to student professional work settings. Letter grading.

452A-452B. Educational Enterprise. (4-4). Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to shape and direct educational work in K-16 education. Focus on purposes of education governance, finance, access, and equity. 452B: Requisite: course 452A. Focus on educational environments, organizations, and curriculum development.

453. Technology in Education: Learning and Leading with Technology. (2). Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Examination of roles of technology in educational institutions and leadership issues associated with these roles. Letter 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. Study of cycle of action research at educational site. Projects done in teams as students hone and assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

454B. Action Research: Collaboration in Change. (4). Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leader- ship Program students. Second course in two-course sequence on learning how to do and use action research. Honing of team processes and team roles while collaborating on data collection and analysis at educational site. Letter grading.

455. Writing and Inquiry. (4). Lecture/workshop, eight hours per month; discussion, one hour; laboratory, one hour. Limited to doctoral students in Educa- tional Leadership Program. Intended to assist stu- dents’ professional development as writers, addressing style and organization, scholarly genres, modes of discourse, and broader issues of conceptual- ity and method. Letter grading.

456. Altering Structure and Culture of Schooling. (4). Lecture, four hours; discussion, four hours. Limited to Educational Leadership Program students. Using applied orientation, examination of variety of approaches to organizational change and ways to sustain change. Letter grading.


460. Seminar: Special Issues in Evaluation. (2 or 4). Seminar, one or two hours; discussion, one or two hours. Topics and instructors vary each term. Recent emphases included evaluation methodology and cost- effectiveness of evaluation. S/U or letter grading.

462. Seminar: Community College. (4). Seminar, four hours. Topics include problems and practices in community college formation, instruction, student flow, administration, and/or evaluation. S/U or letter grading.

466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4). Lecture, four hours. Preparation for educators to teach K-12 stu- dents to explore their own alternative media messages and 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. Explo- ration of curriculum representations of race, class, gender, sexual orientation, and other identity markers. Edu- cators critically question media and technology, as well as explore new alternatives for creating multimedia messages in their own classrooms and the creation of media projects related to teaching required. Letter grading.


482B, Instructional Strategies in Urban Education: English Language Learners. (4). Lecture, four hours. Emphasis on instructional practices that support En- glish language learners in urban public schools. Study and analysis of delivery of comprehensive specialized instruction for English learners and debriefing of field experiences implementing adopted instructional pro- grams for development of academic language, compre- hension, and knowledge in core academic curric- ulum. Letter grading.

482C, Instructional Strategies in Urban Education: Special Populations. (4). Lecture, four hours. Em- phasis on instructional practices that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum, instruction, and assessment issues related to teaching students with disabilities, students who are at risk, and stu- dents who are gifted and talented. Research opportuni- ties, additional methods in content areas for ad- vanced study, and preparation of M.Ed. inquiry in- cluded. Letter grading.

482D, Instructional Strategies in Urban Education: Visual and Performing Arts. (4). Lecture, two hours; dis- cussion, two hours. Emphasis on instructional practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences im- plementing subject-centered arts instruction, instruc- tion connecting arts disciplines, and instruction con- necting arts and other core disciplines. Advanced ex- ploration of elements of each art form, as well as content and emotional scaffolding strategies and re- flection strategies to make learning accessible, en- gaging, and relevant. Letter grading.

485, Advanced Study of Health Education. (1). Lec- ture, four hours. Student meetings with instructors, field specialists, and team cohorts to study and ana- lyze delivery of comprehensive support for physical, cognitive, emotional, and social well-being of stu- dents in K-12 classrooms. Topics include prevention and intervention strategies, accessing local and com- munity resources, curriculum and instruction, and major state and federal laws related to student health and safety. 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 strate- gies. S/U or letter grading.


498A-498B-498C. Resident Seminars. (4-4-4). Seminar, two hours; site-based fieldwork, two hours. Students meet in individual sessions with instructors and other field support faculty and in team and cluster cohorts for university-school partnership, in addition to regular seminars to debrief field experiences and continue study of curriculum, instruction, and assess- ment issues. Research opportunities, additional methods in content areas, and preparation of M.Ed. portfolio included. Letter grading.

498A-498B-498C. Directed Field Experience. (2 to 8 each). Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experi- ence. (4 to 8 each). Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

501, Cooperative Program in Special Education. (2 to 8). Tutorial, to be arranged. Preparation for and participation in UCLA academic adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.

596, Directed Independent Study. (4 to 12). Tutorial, to be arranged. Individual study for or research for graduate students. May be re- peated for credit. S/U or letter grading.

597, Preparation for Master's Comprehensive Ex- aminations or Doctoral Qualifying Examinations. (4 to 8 each). Tutorial, to be arranged. Individual study for master's comprehensive examinations or for Ph.D. or Ed.D. qualifying examinations. May be repeated for credit. S/U or letter grading.

598, Thesis Research. (4 to 8 each). Tutorial, to be arranged four hours for every 4 units. Individual study or research for graduate students. May be re- peated for credit. S/U or letter grading.

599, Dissertation Research. (4 to 8 each). Tutorial, to be arranged four hours for every 4 units. Research for and preparation of doctoral dissertation. May be re- peated for credit. S/U or letter grading.

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- Sudhakar Pamarti, Ph.D.
- Yuanxin Ethan Wang, Ph.D.
- Benjamin S. Williams, Ph.D.

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- Lara Dolecek, Ph.D.

Adjunct Professors
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- Dariusz Dvorsal, Ph.D.
- Keisuke Goda, Ph.D.
- Asad M. Madni, Ph.D.
- Yi-Chi Shih, Ph.D.
- Ingrid M. Verbauwhede, Ph.D.
- Eli Yablonovitch, Ph.D.

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- Jin-Hyung Lee, Ph.D.
- Shervin Moloudi, Ph.D.

Jin-Hyung Lee, Ph.D.
Pedram Khalili Amiri, Ph.D.
Adjunct Assistant Professors
Eli Yablonovitch, Ph.D.

Scope and Objectives
The Department of Electrical Engineering fosters a dynamic academic environment that is committed to a tradition of excellence in teaching, research, and service and has state-of-the-art research programs and facilities in a variety of fields. Departmental faculty members are engaged in research efforts across several disciplines in order to serve the needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine, Graduate School of Education and Information Studies, School of Theater, Film, and Television, and College of Letters and Science.

There are three primary research areas in the department: circuits and embedded systems, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization, integrated circuits and systems, microelectromechanical systems (MEMS), nanotechnology, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics.

The program grants one undergraduate degree (Bachelor of Science in Electrical Engineering) and two graduate degrees (Master of Science and Doctor of Philosophy in Electrical Engineering). The graduate program provides students with an opportunity to pursue advanced coursework, in-depth training, and research investigations in several fields.

Undergraduate Study
The electrical engineering program is accredited by the Engineering Accreditation Commission of ABET. See http://www.abet.org.

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.

Electrical Engineering B.S. Capstone Major
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 discipline in 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 the electrical grid, integrated circuits, 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. Students may further specialize by making use of their three courses in the technical breadth area (12 units required). For example, students wishing to specialize in computer engineering may select Computer Science 33 instead of Electrical Engineering 101B under the major, are encouraged to take Computer Science 35L, and then take three 4-unit upper division computer science elective courses. Students wishing to specialize in bioengineering and informatics may pursue some combination of Bioengineering 100, C101, CM102, 110, and Chemistry and Biochemistry 20B, together with elective courses such as Electrical Engineering 114, 133B, and 180DA and 180DB (the capstone design sequence).

Preparation for the Major
Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical Engineering 2, 3, 10, 11L, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

Students wishing to specialize in computer engineering are encouraged to take Computer Science 35L in preparation for upper division computer science courses.

The Major
Required: Electrical Engineering 101A, 101B (or Computer Science 33), 102, 110, 111L, 113, 115A, 115AL, 121B, 131A, 132A, 133A, 141, 170A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and three major field elective courses (12 units), consisting of either three additional upper division electrical engineering courses, or two upper division electrical engineering courses and one upper division computer science course; and one two-term electrical engineering capstone design course (8 units).

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. Further information. Letter grading.

Graduate Degrees
The Department of Electrical Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Electrical Engineering.

Electrical Engineering
Lower Division Courses
2. Physics for Electrical Engineers. (4).
Lecture, four hours; discussion, two hours; outside study, six hours. Prerequisite: 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.

3. Introduction to Electrical Engineering. (5).
Lecture, two hours; laboratory, two hours; outside study, five hours. Prerequisite: Physics 1B. Introduction to field of electrical engineering. Basic circuits techniques with application to explanation of electrical engineering inventions such as telecommunications, electrical grid, automatic computing and control, and enabling device technology. Research frontiers of electrical engineering. Introduction to measurement and design of electrical circuits. Letter grading.

Lecture, four hours; discussion, one hour; outside study, seven hours. Prerequisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B, Corequisites: course 11L (enforced), Mathematics 33B. Introduction to linear circuit analysis. Resistive circuits, capacitors, inductors and ideal transformers, Kirchhoff laws, node and loop analysis, first-order circuits, second-order circuits, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

11L. Circuits Laboratory I. (1).
Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

(Same as Computer Science M51A.) 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.
Upper Division Courses

100. Electrical and Electronic Circuits. (4). Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 33A, 33B, Physics 1C. Not open for credit to students with credit for course 110. Electrical quantities, linear circuit elements, Kirchhoff’s laws, superposition, node admittance, mesh admittance, transient and steady state circuit behavior, semiconductor diodes and transistors, signal models, and operational amplifiers. Letter grading.

101A. Engineering Electromagnetics. (4). Formerly numbered 101A. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B, Physics 1C. Electromagnetic field concepts, waves and phasors, transmission lines and Smith chart, transient responses, vector analysis, introduction to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.

101B. Electromagnetic Waves. (4). Formerly numbered 161L. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: 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. (4). Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses 10, 102. Enforced corequisite: course 111L. Sinusoidal excitation and phasors, AC steady state analysis, AC steady state power, network functions, poles and zeros, frequency response, mutual inductance, ideal transformer, application of Laplace transforms to circuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2). Labo- ratory, four hours; discussion, two hours. Requisite: course 100 or 110. Experiments with basic circuits containing resistors, capacitors, inductors, and op-amps. Ohm’s law voltage and current measurement, AC circuits, circuit behavior, transient and steady state analysis, and frequency response principles. Letter grading.

111L. Circuits Laboratory II. (1). Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: courses 10, 11L. Enforced require- site: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, transformers, and op-amps. Steady state power analysis, frequency response principles, op-amp-based circuit synthesis, and two-port network principles. Letter grading.


113DA-113DB. Digital Signal Processing Design. (4–4). Real-time implementation of digital signal processing algorithms on digital processor chips. Experi- ments include 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 signal processing algorithms, use of communication (speech, audio, or video using DSP chip. 113DA. (Formerly numbered 113D.) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 113. In progress grading (credit to be given only on completion of course 113D). 113DB. Labora- tory, four hours; outside study, eight hours. Enforced requisite: courses 113, 113DA. Completion of projects begun in course 113DA. Letter grading.

114. Speech and Image Processing Systems De- sign. (4). Lecture, four hours; outside study, two hours; outside study, six hours. En- forced requisite: course 113. Design principles of speech and image processing systems. Speech pro- duction, analysis, and modeling in first half of course. Image design techniques for image enhancement, filtering, and transformation in second half. Lectures supplement by laboratory implementation of speech and image processing designs. Letter grading.


115AL. Analog Electronics Laboratory I. (2). Labo- ratory, four hours; outside study, two hours. Enforced requisite: courses 110L or 111L, 115A. Experimental determination of device characteristics, resistive diode circuits, operational amplifier stages, effect of feedback on single-stage amplifiers, operational amplifiers, and operational ampli- fier circuits. Introduction to hands-on design experi- ence based on student hardware design and implementation platforms. Letter grading.


115BL. Analog Electronics Laboratory II. (4). Labo- ratory, four hours; outside study, eight hours. En- forced requisite: course 115B. Recommended coreq- uisite: course 115D. Study of high-frequency effects in discrete circuit design. Laboratory experiments in- clude transmission lines, tuned amplifiers, oscillators, mixer, and broadband amplifiers. Hands-on experi- ence in implementation of basic electronic circuits and their characterization. Letter grading.


115E. Computer Systems Architecture. (4). (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 115A. Computer Science M51A, Computer Science 33. Recom- mended: course 115BL or Computer Science M51A, Computer Science 111. Computer system organization and design, implementation of CPU data- path and control, instruction set design, memory hi- erarchy (caches, main memory, virtual memory) orga- nization and management, input/output subsystems (bus structures, interrupts, DMA), performance evalu- ation, pipelined processors. Letter grading.

M110C. Introductory Digital Design Laboratory. (2). (Same as Computer Science M152A.) Laboratory; four hours; outside study, two hours. Enforced requi- site: course M16 or Computer Science M51A. Hands- on implementation of digital and analog circuits, design techniques, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, de- signer skill development. Letter grading.

M117. Computer Networks: Physical Layer. (4). (Same as Computer Science M117.) 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 media access layers of network protocol stack. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks (e.g., Bluetooth, ZigBee). Experimental project based on mobile radio-equipped devices (smart phones, tablets, etc.) to design protocols for personal applications such as wireless health, positioning, and environment awareness, and experi- mental laboratory sessions included. Letter grading.

121B. Principles of Semiconductor Device Design. (4). Lecture, one hour; laboratory, four hours; out- side study, eight hours. Enforced requisite: course 2. Introduction to principles of operation of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (4–4). Design fabrication and charac- terization of p-n junction and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metalization, and photolithography. Introduction to CAD tools used in integrated circuit processing and device design. Design and implementation of tool based on SUPREM. Course familiarizes students with those tools. Using CAD tools, MOS process integration to be designed. 121DA. (Formerly numbered 121L.) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite or corequisite: course 121B. In progress grading (credit to be given only on completion of course 121L). Lecture, four hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 121B, 121DA. Letter grading.

122L. Semiconductor Devices Laboratory. (4). Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisites: courses 2, 121B (may be taken concurrently). Design fabrication and charac- terization of p-n junction and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metalization, and photolithography. Letter grading.


123B. Fundamentals of Solid-State II. (4). Lecture, three hours; outside study, nine hours. Enforced requi- site: course 123A. Discussion of solid-state proper- ties, 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 funda- ments of nanoscience for electronics nanosystems. Principles of fundamental quantities: electron charge, electron mass, conversion equation. Both mathematical as well as physical and theoretical approaches. From these nanoscale com- ponents, discussion of basic behaviors of nanosys-
131A. Probability and Statistics. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A. Introduction to concepts of stochastic processes, emphasizing continuous- and discrete-time stationary processes, random variables, and densities, moments, characteristic functions, and limit theorems. Applications to communication, control, and signal processing. Introduction to computer simulation and generation of random events. Letter grading.

131B. Introduction to Stochastic Processes. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A. Description of design project in which students are challenged to design electronic nanosystems. Letter grading.


CM150. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4). (Same as Bioengineering CM150L and Mechanical and Aerospace Engineering CM150B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20L, Physics 1A, 1B, 4A, 4AL; Introduction to micromachining technologies and microelectromechanical systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students design microfabrication processes capable of achieving desired MEMS device. Concurrently scheduled with course CM250A. Letter grading.

150DL. Photonic Sensor Design Laboratory. (4). Lecture, two hours; discussion, two hours; outside study, eight hours. Limited to seniors. Multidisciplinary course with lectures and laboratory experiences on optical sensors. Fundamental concepts and principles related to photodetectors, optical interconnects, fiber-optic coupling and modulation, optical absorption and emission, principles of lasers and light-emitting diodes, and optical detection. Letter grading.

150B. Photonic Devices and Circuits. (4). Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 150A. Coverage of core knowledge of practical photonic devices and circuits. Topics include optical waveguides, optical fibers, optical interconnects, optical amplifiers, and light-emitting diodes, optical detectors, and integrated photonic devices and circuits. Letter grading.

170C. Photonic Sensors and Solar Cells. (4). Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 101A. Recommended: courses 2, 170A. Fundamentals of detection of light for communication and sensing, as well as conversion of light to electrical energy in solar cells. Introduction to radiometry, semiconductor photodetectors, noise processes and figures of merit, thermal detectors, and photovoltaic solar cells of various types and materials. Letter grading.

170L. Laser Laboratory. (4.) (Formerly numbered 172L.) Laboratory, four hours; outside study, eight hours. Enforced requisite or corequisite: course 101A. Properties of lasers, including saturation, gain, mode structure, and spatial characteristics; laser oscillators and amplifiers; fiber optics; detectors, noise processes and figures of merit, optical absorption and emission, principles of lasers and light-emitting diodes, and optical detection. Letter grading.

M171L. Data Communication Systems Laboratory. (2 to 4.) (Same as Computer Science M171L.) Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M116L. Limited to seniors. Not open to students with credit for course M117L. Interpretation of analog-signal aspects of digital systems and data communications through experience in using contemporary test instruments to generate and display signals in relevant laboratory situations. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, desktop computers, terminals, modems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modem and terminal characteristics, and interfaces. Letter grading.

173DA-173DB. Photonics and Communication Devices. (4-4). Lecture, one hour; laboratory, three hours; outside study, three hours. Enforced requisite: course 101B. Measurement techniques, including A/D and D/A conversion and suppressed carrier methods. Possible projects include lasers, optical communication, and biomedical imaging and sensing. 173DA. (Formerly numbered 173D.) En-
forced requisite: course 101A. Recommended: course 170A or Bioengineering C170. Choice of project preliminary design. In Progress grading (credit to be given only on completion of course 173DB).


174. Optical Modulation and Electronics. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 170A. Introduction to semiconductor optoelectronic devices for optical communication and control. An introduction to signal processing. Basic optical properties of semiconductors, pin photodiodes, avalanche photodiode detectors (APD), light-emitting diodes (LED), semiconductor lasers, and optical modulators and amplifiers, and typical photonic systems. Letter grading.

176. Photonics in Biomedical Applications. (4). Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101A. Study of different types of optical systems and their physics background. Examination of their roles in current and projected biomedical applications. Specific capabilities of photonics to be related to each example. Letter grading.

180DA–180DB. Systems Design. (4–4). Limited to senior Electrical Engineering majors. Advanced systems design integrating communications, control, and signal processing subsystems. Introduction to advanced topics related to through design laboratories. Open-ended projects vary each offering. Student teams create high-performance designs that manage trade-offs among subsystem components, including cost, performance, ease of use, and other real-world constraints. Oral and written presentation of project results. 180DA. (Formerly numbered 180D.) Lecture, four hours; outside study, six hours. Enforced requisite: course 180DA. Completion of projects begun in course 180DA. Letter grading.

181D. Robotic Systems Design. (4). Lecture, two hours; laboratory, four hours; outside study, six hours. Required courses: courses M161L, 110L, M116L (or Computer Science M152A), Computer Science 31, 33. Recommended: courses 113, 141, Computer Science 35L. Design of robotic systems that combine embedded hardware, software, mechanical subsystems, and fundamental algorithms and control to expose students to basic concepts in robotics and current state of art. Lecture closely tied to design laboratory where students work in teams to construct sub-systems of a functional robotic system. Letter grading. CM182. Science, Technology, and Public Policy. (4). (Same as Public Policy CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM183. Letter grading.


191C. Matrix Analysis for Scientists and Engineers. (4). (Same as Mathematics 205A.) Lecture, four hours; laboratory, four hours; outside study, eight hours. Preparation: one undergraduate course in linear algebra, language in which virtually all of state-of-art embedded hardware platform. Letter grading.

201A. VLSI Design Automation. (4). Lecture, four hours; outside study, eight hours. Enforced requisite: course 115A. Challenges of digital circuit design for very large-scale integration (VLSI). Focus on design and automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field programmable gate arrays and multicore systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.


202C. Networked Embedded Systems Design. (4). Lecture, four hours; laboratory, four hours; outside study, eight hours. Enforced requisite: course 101A or Computer Science M116L. Recommended: course 115B. Training in combination of networked systems design, microcontroller programming, feedback control, actuation, and motor control. In Progress (184DA) and letter (184DB) grading.

205A. Matrix Analysis for Scientists and Engineers. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: one undergraduate course in linear algebra course. Designed for first-year graduate students in all branches of engineering, science, and related disciplines. Introduction to matrix theory and analysis, language, and computer-based tools of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introduction to graduate-level topics. Letter grading.


208B. Functional Analysis for Applied Math- ematics and Engineering. (4). (Same as Mathematics M208B.) Lecture, four hours; outside study, eight hours. Required: course 208A (or Mathematics 115A and 115B, Mathematics 131A, 131B, 132. Topics


209AS. Special Topics in Circuits and Embedded Systems. (4). Lecture, four hours; outside study, eight hours. Special topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics and embedded security. May be repeated for credit with topic change. S/U or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 4). Seminar, two to four hours; outside study, four to eight hours. Students present and discuss current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics and embedded security. May be repeated for credit with topic change. S/U grading.


212B. Multirate Systems and Filter Banks. (4). Lecture, three hours; outside study, nine hours. Enforced requisite: course 212A. Fundamentals of multirate systems; polyphase representation; multistage implementation; applications of multirate systems to companding and decimated filter banks; perfect reconstruction systems; paraunitary filter banks; wavelet transform and its relation to multirate filter banks. Letter grading.

213A. Advanced Digital Signal Processing Circuit Design. (4). Lecture, three hours; outside study, eight hours. Enforced requisite: course 212A. Digital filter design and optimization tools, architectures for digital signal processing circuits; integrated circuit modules for digital signal processing; programmable signal proces- sors; CAD tools and cell libraries for application-specific integrated circuit design; case studies of speech and image processing circuits. Letter grading.

214A. Digital Speech Processing. (4). (Same as Bioengineering M215.) Lecture, three hours; labora- tory, two hours; outside study, seven hours. Enforced requisite: course 113. Theory and applications of digital pro- cessing of speech signals. Mathematical models of human speech production, synthesis, and perception; psycho- mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomor- phic filtering. Applications to speech synthesis, auto- matic recognition, and voice interfaces. Letter grading.

214B. Advanced Topics in Speech Processing. (4). Lecture, three hours; computer assignments, two hours; outside study, seven hours. Enforced requisite: course M214A. Advanced techniques used in various speech-processing applications, with focus on speech recognition by humans and machine. Physi- ology and psychoacoustics of human perception. Dy- namics Time Warping (DTW) and Hidden Markov Models (HMM) for automatic speech recognition sys- tems, pattern classification, and search algorithms. Aids for hearing impaired. Letter grading.

215A. Analog Integrated Circuit Design. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115B. Analysis and design of analog integrated circuits, MOS and bipolar device structures and models, single-stage and differ- ential amplifiers, noise, feedback, operational ampli- fiers, offset and distortion, sampling devices and dis- crete-time circuits, bandgap references. Letter grading.


215E. Signaling and Synchronization. (4). Lecture, four hours; outside study, eight hours. Enforced requisites: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI sys- tems. Use of both digital and analog design tech- niques 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 transmitters, receivers, and timing recovery circuits. Letter grading.

M215A. Design of VLSI Circuits and Systems. (4). (Same as Computer Science M258A.) Lecture, four hours; discussion, one hour; laboratory, four hours; outside study, three hours. Enforced requisites: courses M16 or Computer Science M115A. Recommended: course 115C, LSI/VLSI design and application in computer systems. Fundamental design tech- niques that can be used to implement complex inte- grated 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 architect- ure design and optimization within block-based de- signation that can be mapped to hardware. Funda- mental 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.

216C. LSU in Computer System Design. (4). (Same as Computer Science M258C.) Lecture, four hours; laboratory, four hours; computer study, four hours; four hours outside study. Enforced requisites: courses 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 Bioengi- neering M217.) Lecture, three hours; outside study, nine hours. Enforced requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4). Lecture, four hours; outside study, eight hours. Dis- cussion of how different cooperative and noncoopera- tive games among agents can be designed to model, optimize, and shape emerging inter- actions among users in different networks and system settings. How strategic agents can successfully com- pete with each other for limited and time-varying re- sources by optimizing their decision process and learning from their past interaction with other agents. To determine their optimal actions in these distrib- uted, informationally decentralized environments, agents need to learn and model directly or implicitly other agents’ responses to their actions. Discussion of existing multagent learning techniques and learning games, including negotiations processes for learning equilibria, fictitious play, regret-learning, and more. Letter grading.

221A. Physics of Semiconductor Devices I. (4). Lecture, four hours; outside study, eight hours. Phys- ical principles and design considerations of field effect devices and charge-coupled devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4). Lecture, four hours; outside study, eight hours. Princi- ples and design considerations of solid-state devices: Schottky barrier, mixed di- odes, IMPATT diodes, transistors, diode lasers, tunnel diodes, microwave transistors. Letter grading.


223. Solid-State Electronics I. (4). Lecture, four hours; outside study, eight hours. Transistors, fets, di-odes, bipolar transistors, BiCMOS transistors, power transistors, power diodes, infrared detectors, optical diodes, IMPATT diodes, tunnel diodes, microwave transistors. Letter grading.

229. Seminar: Advanced Topics in Solid-State Electronics. (4). Seminar, four hours; outside study, eight hours. Requisite: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and detectors. Letter grading.

229S. Advanced Electrical Engineering Seminar. (2). Seminar, two hours; outside study, six hours. Preparation: successful completion of Ph.D. major field examination. Seminar on current research topics in solid-state and quantum electronics (Section 1) or in electronic circuit theory and applications (Section 2). Students report on tutorial topic and on research topic in their dissertation area. May be repeated for credit. Letter grading.

230A. Estimation and Detection in Communication and Radar Engineering. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection theory to communication and radar engineering; random signal and noise characterizations by analytical and simulation methods; mean square (MS) and maximum likelihood (ML) estimations and algorithms; spectral estimation; detection theory; detection under ML, Bayes, and Neyman/Best estimation; detection concepts in communication and radar engineering. Letter grading.

230B. Digital Communication Systems. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 132A, 230A. Basic concepts of digital communication systems; representation of bandpass waveforms; signal space analysis and optimum receiver design. Comparison of optimal and suboptimal detection methods; synchronization and adaptive equalization; applications to modern communication systems. Letter grading.


231A. Information Theory: Channel and Source Coding. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamental limits on compression and transmission of information. Topics include entropy and coding theorems for lossless data compression, channel capacity, rate versus distortion in lossy compression, and information theory for multiple users. 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, convolution codes, and cyclic codes. Letter grading.

232A. Stochastic Modeling with Applications to Telecommunication Systems. (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Introduction to stochastic processes as applied to study of telecommunication systems and traffic engineering. Renewal theory; discrete-time Markov chains; continuous-time Markov jump processes. Applications to traffic and queueing analysis of basic telecommunication system models. Letter grading.

232B. Telecommunication Switching and Queueing Systems. (4). Lecture, four hours; outside study, eight hours. Requisite: course 232A. Introduction to telecommunication switching and analysis with applications to space-time digital switching systems and to integrated-service telecommunication systems. Fundamentals of traffic engineering and queueing theory. Queue size, waiting time, busy period, blocking, and stochastic process analysis for Markovian and non-Markovian models. Letter grading.


232D. Telecommunication Networks and Multiple-Access Communications. (4). Lecture, four hours; outside study, eight hours. Requisite: course 232B. Performance analysis and design of telecommunication networks and multiple-access communication systems. Topics include architectures, multiplexing and multiple-access, message delays, error control, switching, routing, protocols. Applications to local-area, packet-radio, satellite, and computer and satellite communication networks. Letter grading.

232E. Graphs and Network Flows. (4). Lecture, four hours; outside study, eight hours. Requisite: course 136. Solution to analysis and synthesis problems that may be formulated as flow problems in capacity constrained (or cost constrained) networks. Development of tools of network flow theory using graph theoretic methods; algorithms to communication, transporta
tion, and transmission problems. Letter grading.

233. Wireless Communication Systems. (4). Lecture, four hours; outside study, eight hours. Requisite: course 232B. Various aspects of physical layer and medium access design for wireless communications systems. Topics include wireless signal propagation and channel modeling, single carrier and spread spectrum modulation for wireless systems, diversity techniques, multiple beam antennas, transceiver design and effects of nonideal components, hardware partitioning issues. Case study highlights system level trade-offs. Letter grading.


M237. Dynamic Programming. (4). (Same as Mechanical and Aerospace Engineering M276.) Lecture, four hours; outside study, four hours. Requisites: courses 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 Markov Decision Methods of solution. Examples from inventory theory, finance, optimal control and estimation, Markov decision processes, combinatorial optimization, communications, and more. Letter grading.

238. Multimedia Communications and Processing. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 113, 131A. Key concepts, principles, and algorithms of real-time multimedia communications and processing across heterogeneous Internet and wireless channels. Due to flexible and low-cost infrastructure, new networks and communication channels enable variety of delay-sensitive multimedia transmission applications and provide varying resources with limited support for quality of service required by delay-sensitive, bandwidth-intensive, and loss-tolerant multimedia applications. New concepts, principles, theories, and algorithms for cross-layer design that can provide optimal adaptation for time-varying channel characteristics, adaptive and delay-sensitive applications, and multuser transmission environments. Discovery and learning how to make decisions in broad context, including Markov decision processes, optimal stopping, reinforcement learning, structural results for online learning, multitasking, and learning. Letter grading.

239A. Special Topics in Signals and Systems. (4). Lecture, four hours; outside study, eight 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 or letter grading.

239BS. Seminar: Signals and Systems. (2 to 4). Seminar, two to four hours; outside study, four to eight hours. Seminars in special areas. Prerequisites: current and advanced topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

M240A. Linear Dynamic Systems. (4). (Same as Chemical Engineering M239A 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-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form, and invariant subspaces; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function methods. Letter grading.

240B. Linear Optimal Control. (4). Lecture, four hours; outside study, eight hours. Requisites: courses 141, M240A. Introduction to optimal control, with emphasis on detailed study of linear regulators with quadratic cost criteria. Relationships to classical control system design. Letter grading.

M240C. Optimal Control. (4). (Same as Chemical Engineering M280C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dis-
of process control. One hour of practical work. Letter grading.


248S. Seminar: Systems, Dynamics, and Control Topics. (2). (Same as Chemical Engineering M297 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.

2520A. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4). (Same as Bioengineering M252A and Chemical and Mechanical Aerospace Engineering CM240A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to micromachining technologies and microelectromechanical systems (MEMS). Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Methods include chemical resistors and etch techniques, mechanical properties, and residual/intrinsic stress. Letter grading.

2520B. Microelectromechanical Systems (MEMS) Fabrication. (4). (Same as Bioengineering M252B and Chemical and Mechanical Aerospace Engineering M280B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course CM150 or CM250A. Introduction of microfabrication processes used to construct MEMS. Coverage of lithography, deposition, and etching processes, as well as their combination in process integration. Processes include chemical resistors and etch techniques, mechanical properties, and residual/intrinsic stress. Letter grading.

2520L. Introduction to Micromachining and Micro- electromechanical Systems (MEMS) Laboratory. (2). (Same as CM250L and Mechanical and Aerospace Engineering CM280L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Requisites: course CM250A, Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students learn and practice micromachining and microactuation methods. Letter grading.


2527. Nanoscience and Technology. (4). (Same as Mechanical and Aerospace Engineering M287.) Lecture, four hours; outside study, eight hours. Enforced requisite: course CM250A. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanocharacterization; nanomaterials and nanobiotechnology. Introduction to new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.


274. Fiber Optic System Design. (4). Lecture, three hours; outside study, nine hours. Requisites: courses 173D and/or 174. Top-down introduction to physical layers of fiber optics, including Telecom, Datacom, and CATV. Fundamentals of digital and analog optical communication systems, fiber transmission characteristics, and optical modulation techniques, includinguty, effects. Design of modulation and computer-aided design. Architectural-level design of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.
279AS. Special Topics in Physical and Wave Electronics. (4). Lecture, four hours; outside study, eight hours. Special topics in one or more aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change. S/U or letter grading.

279BS. Seminar: Physical and Wave Electronics. (2 to 4). Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change. S/U grading.


CM282. Science, Technology, and Public Policy. (4). (Same as Public Policy CM282) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Corequisite: S/U or letter grading.

285A. Plasma Waves and Instabilities. (4). Lecture, four hours; outside study, eight hours. Requisites: courses M185, and M118 or Physics M122W. Wave phenomena in plasmas described by macroscopic fluid equations. Microwave propagation, plasma oscillations, ion acoustic waves, cyclotron waves, hydro-magnetic waves, drift waves, Rayleigh/Taylor, Kelvin/ Helmholtz, universal, and streaming instabilities. Application to experiments in fully and partially ionized gases. Letter 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. (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.


375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, fellow, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


596. Directed Individual or Tutorial Studies. (2 to 8). Tutorial, to be arranged. Limited to graduate 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.


597B. Preparation for Ph.D. Preliminary 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.


599. Research for and Preparation of Ph.D. 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.

Scope and Objectives
The Department of Emergency Medicine focuses on the teaching and management of time-sensitive training situations. A three-week subinternship rotation is offered to fourth-year medical students. The residency program is a full four years.

For further details on the Department of Emergency Medicine and a listing of the courses offered, see http://www.emergencymedicine.ucla.edu.

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Chair
Chair

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(310) 825-9580
http://www.engineer.ucla.edu

Professors Emeriti
Allen B. Rosenstein, Ph.D.
Bonham Spence-Campbell, E.E.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Henry Samueli School of Engineering and Applied Science offers the Master of Engineering (M.Eng.) degree (through the Engineering Executive Program), Master of Science (M.S.) online degree in Engineering, and Engineer (Engr.) degree as schoolwide degrees. A certificate of specialization is available in all areas of specialization, except computer science.
Engineering

Lower Division Courses

10A. Introduction to Complex Systems Science. (5). (Formerly numbered M10A.) Lecture, four hours. How macroscopic patterns emerge dynamically from local interactions of large number of interdependent (often heterogeneous) entities, without global design or central control. Such emergent order, whose explana- tion cannot be reduced to explanations at level of individual entities, is ubiquitous in biology and human social collectives, but also exists in certain physical processes such as avalanches and some chemical reactions. Complexity also deals with how such systems undergo sudden changes, including cata- strophic breakdowns, in absence of external force or central influence. Key aspect of biological and social collectives is their nature as complex adaptive sys- tems, where individuals and groups adjust their be- havior to external conditions. In biological and social systems, this adaptive behavior goes beyond traditional mathematics and statistics in its use of multilevel computational models that better capture these com- plex, adaptive, and self-organizing phenomena. Letter grading.

87. Introduction to Engineering Disciplines. (4). Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to engineering as profession and to human study by exploring difference between engineering disciplines and functions engineers perform. Development of skills and techniques for academic excellence through team projects. Identification of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological work force. Letter grading.

95. What Students Need to Know about Careers in Engineering. (2 to 4). Tutorial, two to four hours. Limited to freshmen/sophomores. Internship studies course supervised by associate dean or designated faculty members. Further supervision to be provided by organization for which students do internship. Students may be re- quired to meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. May be re- peated for credit as credit/no credit course. P/NP grading.

98. What Students Need to Know about Nanoscience and Nanotechnology. (4). (Same as Materials Science M105.) Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

101A. Principles of Nanoscale and Nanotechnology. (4). (Same as Materials Science M105.) Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

Upper Division Courses

M101. Principles of Nanoscience and Nanotechnology. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

M102. Synthetic Biosystems and Nanosystems Design. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

M103. Environmental Nanotechnology: Implica- tions and Applications. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

110. Introduction to Technology Management and Economics for Engineers. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

111. Introduction to Finance and Marketing for En- gineers. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

112. Laboratory to Market, Entrepreneurship for En- gineers. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

130. Product Strategy. (4). Lecture, four hours; dis- cussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

131. Product Development. (4). Lecture, four hours; discussion, one hour. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.


200. Program Management Principles for En- gineers and Professionals. (4). Lecture, four hours; discussion, eight hours. Outlines the history, recent advances, and future directions of nanoscience and nanotechnology. Emphasizes the importance of nanoscience and nanotechnology in solving environmental and health challenges, and the role of engineers in designing and synthesizing novel nanoscale materials and devices. Prerequisites: Math 2, Physics 6A, and 1C. Lecture grading.

471A-471B-471C. Engineer in General Environment. (3-3-1.5). Lecture, three hours (courses 471A, 471B, 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 (471A) grading; In Progress (471B) and S/U or letter (471C) 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. (3-2). Lecture, two and one-half hours. Limited to Engineering Executive Program students. Introduction to the problem of building large-scale systems involving the integration of many separate elements. The course is designed to provide a common working vocabulary and encourage the development and application of new techniques in the analysis and synthesis of large-scale systems. S/U grade.

495A. Teaching Assistant Training Seminar. (4). Seminar, four hours; outside study, eight hours. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar in communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport building. S/U grade.

495B. Supervised Teaching Preparation. (2). (Same as English Composition M495E.) Seminar, two hours. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar in communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport building. S/U grade.

M495C. Supervised Teaching Preparation. (2). (Same as English Composition M495F.) Seminar, one hour. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar in communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport building. S/U grade.

299. Capstone Project. (4). Activity, 10 hours. Preparation: completion of minimum of four 200-level courses in online M.S. program. Project course that satisfies UCLA final comprehensive examination requirement of M.S. online degree in Engineering. Project is completed under individual guidance from UCLA engineering faculty member and incorporates advanced knowledge learned in M.S. program of study. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel enrollment 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 grade.
in English can provide excellent preparation, including law, administration, business, teaching, media, and entertainment.

Within the B.A. degree in English, qualified students may elect a concentration in creative writing. The department also offers a Bachelor of Arts 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.

A graduate program leading to the Master of Arts degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the Ph.D. degree. Because the Ph.D. 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 Study

Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition A or 2). For further information regarding Entry-Level Writing, see the Undergraduate Study section of this catalog.

The English Department offers a designated capstone program for English and American Literature and Culture majors. Students in both majors 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.

Extra-Departmental Requirement in Foreign Literature or Foreign Language

All English majors must have completed either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or foreign literature, including foreign literature in translation (see course listings under Foreign Literature in Translation in this section). 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.

English B.A.

Capstone Program

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.

Preparation for the Major

Required: English Composition 3, English 4W or 4WS or 4WS, 10A, 10B, 10C taken in the stated sequence (each course is a requisite for the next course). A grade of C or better is required in each course.

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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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 166A, (c) literatures in English, 1700 to 1850—course 160A through 185C, 168B through 168, 176, or indicated sections of 169, 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, or 179; (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, 169, or 179, (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, 169, or 179, (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, 169, or 179, and (d) creative writing—courses 136, 137, 138; (3) two elective courses (English 195CE is not applicable); (4) one seminar from course 180 through 184, or M191A through M191E. Admission to creative writing workshops (courses 136, 137, 138) is by application only. Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

Scope and Objectives

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...
Creative Writing Concentration

The creative writing concentration consists of the same requirements as the major, with the exception that one breadth course must be taken from the creative writing area (English 136, 137), and both electives must be creative writing workshops (courses 136, 137). All other requirements remain the same. English 138 cannot satisfy any breadth or workshop requirements in the concentration and may only be applied toward the basic English major. Students may declare creative writing as a concentration only after they have completed three creative writing workshops in a single genre of either poetry or short story. Students may not enroll in more than one workshop (course 136, 137, or 138) 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 further details.

American Literature and Culture B.A.

Capstone Program

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.

Preparation for the Major

Required: English Composition 3, English 4W or 4HW or 4WS, 10A, 10B, 10C taken in the stated sequence (each course is a requisite for the next course). A grade of C or better is required in each course.

Transfer Students

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten 4- or 5-unit upper division courses, including five in American literature selected from English 166A through 167B, 170A, 170B, 170C, 172C through 177, two of which must be devoted to literature written before 1900 (courses 166A through 167B, 170A, and M104A), 175, 176, 177 when treating a pre-1900 topic); one seminar from M105SSL, 183A, 183B, 183C, M191A, M191B, M191C, or when treating American topics, 180, 181A, 181B, 182E, 182F, 184, M191D, M191E; two American gender, race, ethnicity, disability, and sexuality courses from M102A, M102B, M104A through 106 (also 100, M101B, M101C, M101D, M103, M107A, M107B, 108, 109 when treating American topics or figures); and two courses from 100 through 199 (English 195CE is not applicable) or from courses pertaining to American culture offered by other departments (of those courses applied toward the major from outside the Department of English, both must usually come from one department or program and appear on a list of approved courses for the major). Each course applied toward requirements for the major must be at least 4 units and be taken for a letter grade.

Honors Program

Admission

The honors program is open to departmental majors with a 3.5 departmental and a 3.25 overall grade-point average. 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 further information, contact the departmental counselor.

Requirements

All honors students are required to take one theory course from English 120 through 128 (may fulfill one of three required breadth courses) no later than Winter Quarter of the junior year. Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H. In Spring Quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During Fall and Winter Quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

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 literature, including a better understanding and appreciation of literatures in English and improvement in critical thinking, reading, and writing skills.

To enter the minor, students must have an overall grade-point average of 2.0 or better, and have satisfied the English Composition 3 requirement. Letter grading.

Required Upper Division Courses (25 units):

Five courses selected from English 100 through M191E, including one course in literatures in English written before 1700 (see course lists 1a and 1b under English B.A., The Major, above) and one other course in literatures in English written before 1850 (see course lists 1a, 1b, and 1c under English B.A., The Major, above).

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 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of English offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in English.

English Minor

Lower Division Courses

4HW. Critical Reading and Writing (Honors). (5). Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Writing II requirement. Letter grading.

4W. Critical Reading and Writing. (5). Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Satisfies Writing II requirement. Letter grading.

4WS. Critical Reading and Writing (Service Learning). (5). Lecture, four hours; fieldwork, two 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. Service learning component includes meaningful work with off-campus agency selected by instructor. Satisfies Writing II requirement. Letter grading.
10A. Literatures in English to 1700. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10B. Literatures in English, 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A, 10B. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10C. Literatures in English, 1850 to Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW, 10A, 10B. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

20. Introduction to Creative Writing. (4) Lecture, four hours. Preparation: submission of creative or expository writing sample to screening committee. Enforced requisites: satisfaction of Entry-Level Writing requirement, English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 20. Designed to introduce fundamentals of creative writing. Emphasis either on poetry, fiction, or drama, depending on wishes of instructor during any given term. Readings from assigned texts and weekly writing assignments required. P/NP or letter grading.

20W. Introduction to Creative Writing. (5) Lecture, four hours. Enforced requisites: satisfaction of Entry-Level Writing requirement, English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 20W. Designed to introduce fundamentals of creative writing and writing workshop experience. Emphasis on poetry, fiction, drama, or creative nonfiction depending on wishes of instructor(s) during any given term. Readings from assigned texts, weekly writing assignments (multiple drafts and revisions), and final folio required. Satisfies Writing II requirement. Letter grading.

M30. Introduction to Environmental Humanities. (5) (Same as Environment M30) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

M30SL. Introduction to Environmental Humanities (Service Learning). (5) (Same as Environment M30SL) Lecture, three hours; discussion, one hour; fieldwork, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component includes meaningful work with off-campus agency/agencies selected by instructor. P/NP or letter grading.

M40. Structure of English Words. (5) (Same as Linguistics M40) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

M50. Introduction to Visual Culture. (5) (Same as Film and Television M50.) Lecture; three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

80. Major American Authors. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any course 170 series. Introduction to chief American authors, with emphasis on poetry, nonfictional prose, 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 course 170 series. Introduction to chief American authors, with emphasis on poetry, nonfictional prose, and short fiction of such writers as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

88A-88Z. Lower Division Seminars: Special Topics in English. (5 each) Seminar, three hours; limits to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading. 88A. Medieval Literature; 88B. Renaissance Literature; 88C. 17th-Century Literature; 88D. 18th-Century Literature; 88E. Romantic Literature; 88F. Victorian Literature; 88G. 20th-Century British Literature; 88H. Colonial American Literature; 88I. 19th-Century American Literature; 88J. 20th-Century American Literature; 88K. History of English Language; 88L. Folklore and Mythology; 88M. American Multicultural Learning. Seminar, three hours; fieldwork, three hours. Textual analysis, analytical discussion, and written assignments about works of literature that raise issues relevant to contemporary society. Service learning component includes minimum of 20 hours of service agency involved in issues of public advocacy and social justice.

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 courses 150A or 150B. Survey of Shakespeare’s plays, including major poetic categories and their effects on cultural production. P/NP or letter grading.

91A. Introduction to Poetry. (5) (Formerly numbered 95A.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instructional credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical analysis of selection of representative poems. P/NP or letter grading.

91B. Introduction to Drama. (5) (Formerly numbered 95B.) 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, play structure, methods of evaluation. P/NP or letter grading.

91C. Introduction to Fiction. (5) (Formerly numbered 95C.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of representative 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.

97H. Honors Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Limited to 15 students. Recommended for lower division students who anticipate entering the Honors program during their junior year. Content varies; see departmental counselor for information. P/NP or letter grading.

Upper Division Courses

100. Introduction to Ethnic Studies. (5) (Not the same as course 100 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to academic study of race and ethnicity, with primary focus on literature. Through examination of institutions that form understanding of race—citizenship, nationalism, class, gender, and labor—interrogation of how we come to think of ourselves and others as having race, and effects of such racialized thinking. Course is not about any particular racial or ethnic group, but highlights creation of ethnic categories and the effects on cultural production. P/NP or letter grading.

M101A. Premodern Queer Literatures and Cultures. (5) (Not the same as course M101A prior to Fall Quarter 2011.) (Same as Gender Studies M105A and Lesbian, Gay, Bisexual, and Transgender Studies M101A) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101B. Queer Literatures and Cultures, 1850 to 1970. (5) (Formerly numbered M101A) (Same as Gender Studies M105B and Lesbian, Gay, Bisexual, and Transgender Studies M101B) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Virginia Woolf, Langston Hughes, James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101C. Queer Literatures and Cultures after 1970. (5) (Formerly numbered M101B) (Same as Gender Studies M105C and Lesbian, Gay, Bisexual, and Transgender Studies M101C) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of cultural production, specifically literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Holzer, Leslie Feinberg, Achby Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (5) (Formerly numbered M101D) (Same as Gender Studies M105D and Lesbian, Gay, Bisexual, and Transgender Studies M101D) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component includes meaningful work with off-campus agency/agencies selected by instructor. P/NP or letter grading.

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 3H. Survey of Asian American literature either
produced from or thematically reflecting pre-1980 period. Issues include immigration, diaspora, gender formation, interethnic dynamics, and social movement. Works by such authors as Edith Eaton, Younghill Kang, Carlos Bulosan, Hisaye Yamamoto, John Rechy, Frank Chin, and Maxine Hong Kingston. P/NP or letter grading.

M102B. Contemporary American Literary Issues and Criticism. (5) (Not same as course M102B prior to Fall Quarter 2011.) (Same as Asian American Studies M103B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: 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, minority and Orientalism, and meat versus rice, in study of novels, poetry, performance, music, and films. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) (Same as Disability Studies M103.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of modes of disability in literature, with specific emphasis on the literary concerns. Topics may include introduction to disability studies, representation of disabled people, and 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 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 Johnson, Ida B. Wells, Ralph Ellison. 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 3H. English Composition 3 or 3H. Introductory survey of African American literature from New Negro Movement of post-World War I period to 1960s. Texts by materials (ballads, African American literature (folk speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Nella Larsen, Zora Neale Hurston, Richard Wright, 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 late 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women's writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule Marshall, and E. L. Younge. 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 existed over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

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, format, and thematic perspectives. Topics may include 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/Chicana Literature, 1400 to 1920. (5) (Same as Chicana and Chicano Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from poetry of Triple Alliance and Aztec Empire through 20th-century Chicana literature, oral and written forms (poetry, corridos, testimonio, folklore, novels, short stories, and drama) by writers such as Nezahualcoyotl (Hungry Coyote), Cabaza de Vaca, Lorenzo de Zavala, María Amparo Ruiz de Burton, Eusebio Chacón, Daniel Venegas, and Lorenza Villegas de Magón. P/NP or letter grading.

M105B. Chicana/Chicana Literature from Mexican Revolution to the Movimiento, 1920 to 1970s. (5) (Not same as course M105B prior to Fall Quarter 2011.) (Same as Chicana and Chicano Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from 1920s through Great Depression and World War II, ending with Chicana/Chicana civil rights movement. Oral and written narratives by writers including Conrado López and Deafos Jaramillo, Alberto Chávez, Mario Suárez, Oscar Acosta, and Evangelina Vígil. P/NP or letter grading.

M105C. Chicana/Chicana Literature since the Movimiento, 1970s to Present. (5) (Formerly numbered English Composition 3 or 3H. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Oral, written, and graphic fiction and poetry, and drama by writers including John Rechy, Gloria Anzaldúa, Los Bros Hernández, Ana Castillo, and Dago-berto Gilb guide exploration of queer and feminist criticisms, Reagian generation, immigration debates, and emerging Latina/Latino majority. P/NP or letter grading.

M105D. Introduction to Latina/Latino Literature. (3) (Same as Chicana and Chicano Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of U.S. Latina/Latino literature and introduction to its major critical trends, with emphasis on genres of Chicana and Latina/Latino literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South American migration have shaped 21st-century chicanas and whites. Oral, written, and graphic fiction and poetry, and drama by writers including John Rechy, Gloria Anzaldúa, Los Bros Hernández, Ana Castillo, and Dago-berto Gilb guide exploration of queer and feminist criticisms, Reagan generation, immigration debates, and emerging Latina/Latino majority. P/NP or letter grading.

M105E. Studies in Chicana/Chicana and/or Latina/Latina Literature. (5) (Same as Chicana and Chicano Studies M105E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics course to give students broad introduction to issues and themes in Chicana/Chicana and/or Latina/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.

M105SL Seminar: Chicana/Chicana and/or Latina/Latina Literature—Service Learning. (5) (Same as Chicano Studies M105SL) Seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3 or 3H. Specialized studies in Chicana and/or Latina/Latina literature. In-depth study of various topics related to Chicano/Latina communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change, Chicana/ Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana and/or Latina/Latina community and selected by instructor. P/NP or letter grading.

106. Studies in Native American and Indigenous Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on pre-1980 and transnational indigenous literary and cultural expression. Topics may include oral traditions and histories, decolonization and sovereignty, identity and place 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) (Formerly numbered English Composition 107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional variables of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

109. Topics in Race, Ethnicity, Gender, and Sexuali- ty Studies. (5) (Not same as course 109 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110A. Analytical Writing in English Major. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW), 10A, 10B, 10C, English Composition 3. Open only to English majors. Not open 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.

110T. Writing in English Major. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 4W (or 4HW), 10A, 10B, 10C, English Composition 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.
111A. Hebrew Bible in Translation. (5). (Formerly numbered 108A.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Hebrew Bible (Old Testament), with emphasis on literary devices and narrative structures in relation to Judaic historical, political, psychological, philosophical, and theological themes. P/NP or letter grading.

111B. Christian Biblical Texts in Translation. (5). (Formerly numbered 108B.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of canonical New Testament and other Christian texts (deuterocanonical, apocryphal, gnostic, etc.), with emphasis on literary devices and narrative structures in relation to historical, political, psychological, philosophical, and theological themes. P/NP or letter grading.

111C. Topics in Biblical Literature. (5). (Formerly numbered 108C) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: course 111A or 111B. Study of topics in Hebrew Bible and/or New Testament, with attention to particular literary themes, motifs, genres, and interpretative methods. 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.

112A. Oral Tradition. (5). (Formerly numbered 111A.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of oral traditions in relation to folkloristic and folklorist’s viewpoint. Topics 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.

112B. Celtic Mythology. (5). (Formerly numbered 111D) 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.

112D. Celtic Folklore. (5). (Formerly numbered 111F) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of oral texts and folkloristic methods. P/NP or letter grading.

113A. History of English Language. (5). (Formerly numbered 121.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study directed toward English major’s of main features in grammatical, lexical, and phonetic condition of English language from Indo-European time to present. P/NP or letter grading.

113B. Introduction to Structure of Present-Day English. (5). (Formerly numbered 122.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to techniques of linguistic description as applied to pronunciation, grammar, and vocabulary of modern English. P/NP or letter grading.

114. Lyric Histories. (5). (Not same as course 114 prior to Fall Quarter 2011.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of lyric poetry in literatures. Themes include historical evolution of aesthetic forms, changing concepts of dramatic personae, matter of literary influence, and complex relationship of individual lyric speakers to their surroundings and historical context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

115A. American Popular Literature. (5). Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of such popular styles and genres as senti- mental literature, sensation fiction, dime novels, crime stories, pornography, science fiction, supernatural fiction, war fiction, and dystopian and futuristic fiction of mass lit- erary expression. P/NP or letter grading.

115B. British Popular Literature. (5). Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature in literature of British masses, from 16th-century broadsides to contemporary novels. Examination of social and cultural aspects of literature. P/NP or letter grading.

115C. Literature for Children and Adolescents. (5). (Formerly numbered 112.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study 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). (Formerly numbered 117.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of detective fiction and related forms of fiction. P/NP or letter grading.

115E. Science Fiction. (5). (Formerly numbered 116.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of science fiction and speculative literature. P/NP or letter grading.

M115SL. Community-Based Studies of Popular Literature. (5). (Same as Civic Engagement M110SL) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of textual materials pertaining to children’s literature, folkloric and their stories, with emphasis on techniques of multinational analysis. 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, me- dium, theme, etc.), and different perspectives of text such as binding and book design. Focus general 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 tech- nology, such as hypertext fiction, interactive fiction, animated and interactive poetry, multimedia works, video game narrative, and works employing network protocols and print-based works influenced by digital culture. Basic introduction to new media theory. P/NP or letter grading.

117. Literature of California and American West. (5). (Formerly numbered 119.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature in English dealing with exploration, settlement, and emergent cultures of Western U.S. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118A. Interdisciplinary Studies in Literature. (5). (Formerly numbered 109.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literatures in English in relation to other disciplines such as sci- ences, history, politics, philosophy, music, photog- raphy, visual studies, psychology. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118B. Literature and Other Arts. (5). Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of relationship of literature to other arts, including music (opera, musical theater, popular music, jazz), painting, photography, other visual arts, sculpture and other plastic arts, performance art, dance, and architecture. Topics 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.

119C. Studies in Visual Culture. (5). (Formerly numbered 118.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of visual images (photographs, video) and their literariness and/or popular culture. Topics include adaptation, visual analysis, word and image, image and culture, film and visual culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119D. Critical Theory. (5). Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of critical theories of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban utopia or cosmopolitan hub, segregated dystopia 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.

119E. Contemporary Aesthetics and Critical Theory. (5). 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, develop- ment, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban utopia or cosmopolitan hub, segregated dystopia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service learning compo- nent includes meaningful work with local nonprofit or- ganizations 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). (Formerly numbered 120.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: courses 10A, 10B. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Manesius, psychoanalysis, structuralism, poststructur- alism, feminism, and postmodernism. May not be re- peated for credit. P/NP or letter grading.

121. Modern and Contemporary Aesthetics and Critical Theory. (5). (Not same as course 112 prior to Fall Quarter 2011.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: courses 10A, 10B. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Manesius, psychoanalysis, structuralism, poststructur- alism, feminism, and postmodernism. May not be re- peated for credit. P/NP or letter grading.

122. Keywords in Theory. (5). (Not same as course 122 prior to Fall Quarter 2011.) Lecture; four hours; discussion; one hour (when scheduled). Enforced requisite: courses 10A, 10B, 10C. Recommended: courses 120, 121. Taking its model from Raymond Williams’ classic vocabulary of culture and society, investigation of fundamental theoretical concepts, or keywords, that have emerged from variety of intellec- tual disciplines to shape literary and cultural studies. Consideration of lexical development of such key- words: how they alter and enrich assumptions about textuality, readers, and authorship; and how they en- gender 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 Historiography. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Exploration of theories of history and historiography that offer productive approaches to literary texts. Investigation of how historians negotiate between abstract concepts of history and the written narratives, or history, how history is constructed, troped, and given authority, how histories constitute past and present in relationship to each other, and how history and/or culture change and complex ways that literary texts operate within and on their historical contexts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

124. Theories of Religion. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Examination of relationships between religious and philosophical ideas and their intersection, in various intellectual, cultural, and social contexts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: courses 120, 121. Examination of the writings of North American, European, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

130. Introduction to Postcolonial Literatures. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introduction to major themes and issues in postcolonial thought. Study of literary works written after decolonization, often engaging questions of British or other empire with emphasis on Anglophone writers from Africa, Caribbean, South Asia, and the diaspora. May not be repeated for credit. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5). (Formerly numbered 169B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of how colonialism and decolonization have shaped literary and cultural expression, with specific emphasis on regional or thematic concerns. Topics may include literatures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

132. Culture and Imperialism. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Exploration of critical frameworks of nation and colonialism. Emphasis may be on particular historical periods or approaches to literary texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

133. Transatlantic Literatures and Cultures. (5). (Not same as course 135 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of literatures of Atlantic and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5). (Not same as course 134 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Examination of how critical frameworks of nation and migration, transnationalism and globalization, and translation and modernity frame analysis of literary texts, particularly relationship between literature and national identity. Other topics include nation building in relationship to regional identities as well as discourses of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of Americas. (5). (Not same as course 135 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of literatures of Americas, with emphasis on complex ways in which Americas are understood in Central America, South America, and Caribbean forge distinctly American perspective on global affairs. Spans language from age of encounter to 19th-century U.S. American revolution. May be repeated for credit with topic or beyond, considering such topics as empires, colonialism, slavery, transnational dynamics, and cross-cultural transformations among indigenous, European, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

137. Creative Writing: Short Story. (5. (Formerly numbered 134.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Weekly exercise in writing poetry, with an emphasis on the craft of the narrative poem. 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.

138. Topics in Creative Writing. (5. Seminar, three hours. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Weekly exercise in writing poetry, with an emphasis on the craft of the narrative poem. 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.

139. Individual Authors. (5. (Formerly numbered 110.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Introductory workshop in genre(s) of instructor’s choice, which may include mixed genres, playwriting, screenwriting, literary nonfiction, or creative nonfiction. Classroom discussion per section not permitted. May be repeated for maximum of 10 units. May not be used to satisfy workshop requirements for English creative writing concentration. P/NP or letter grading.

140A. Chaucer: Canterbury Tales. (5. (Formerly numbered 141A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introductory study of Chaucer’s language, versification, and historical and literary background, including analysis and discussion of his long major poems, Canterbury Tales. P/NP or letter grading.

140B. Chaucer: Troilus and Criseyde and Selected Minor Works. (5. (Formerly numbered 141B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Intensive study of Troilus and Criseyde and selected minor works of Chaucer, such as Book of the Duchess, House of Fame, Parliament of Fowls, etc. P/NP or letter grading.

141. Early Medieval Literature. (5. (Formerly numbered 150A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel literature. Texts and topics include Beowulf, Vikings, poems on women, Bede, and King Alfred. P/NP or letter grading.

142. Later Medieval Literature. (5. (Formerly numbered 150B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Reading and historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyrics). P/NP or letter grading.

143. Drama to 1576. (5. (Formerly numbered 152A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

144. Medieval Romance and Literatures of Court. (5. (Formerly numbered 153.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Investigation of medieval romances, from the court and mediaeval approach to literature, to the politics of chivalry, the骑士 and the centaur, the Court of Love, and the culture of courtly love. May be repeated for credit with topic or instructor change. P/NP or letter grading.
in range of genres: romance, courtly epic, lyric, de- bate, and satire. Texts may include Beowulf, Lais of Marie de France, Sir Gawain and Green Knight, Pearl, and Malory’s Crie Wisse, Piers Plowman, Anglo-Norman texts such as mutch and La belle Dame sans merci. Exploration of devotional genres and their complex relationships with traditions of deviant in modern En- glish culture, encompassing hagiography, vision, con- verse narrative, interreligious debate, heresy trials, and Lollard manifestos and translations. Texts may in- clude Dream of Rood, South English Legendary, An- crene Wisge, Flores Florimur, Lollard texts, 10A, mac- oplay, Wakefield cycle, Showings of Julian of Nor- wich, and Book of Margery Kempe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

145. Medieval Stories and Collections. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of medieval storytelling and col- lection in complex literary conversations across medi- eval cultures, periods, genres, and languages, while story collections often stage act of storytelling within narrative consciousness and powers of literary production itself. Texts may include cycles such as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Malaboin, manuscripts divided as Auchinleck manuscript or Exeter book, framed narratives such as De- cameron, Canterbury Tales, 1001 Nights, and Gower’s Confesso Amantis, or collections of exempla, leg- ends, and fata. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Medieval Worlds, Chronicles, and Records. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Investigation of medieval history writing as literary tra- dition. Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Mul- tilingual ubiquity of history writing points to pressures of history on history writing—histories are always shaped by political, cultural, linguistic, and textual pressures of present tense. Texts may include histo- ries, chronicles, material records, and historiographi- cally engaged texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

147. Shakespeare, Poems and Early Plays. (5). (Formerly numbered 142A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration 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.

150. Milton. (5). (Formerly numbered 143.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of Milton, with emphasis on Paradise Lost. P/NP or letter grading.

152. Renaissance Worlds. (5). (Formerly numbered 151B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in the Renaissance period. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (5). (Formerly numbered 152B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur perfor- mances in court, cities, churches, and countryside of varied scale of texts, dramma comico, secular drama, charivari—alongside examination of texts, performers, and performance spaces from 1509 to 1642. May be repeated for credit with topic or in- structor change. P/NP or letter grading.

154. Literature of England to 1700. (5). (Not same as course 154 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur perfor- mances in court, cities, churches, and countryside of varied scale of texts, dramma comico, 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. Renaissance Subjects. (5). (Not same as course 155 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Milton, with emphasis on Paradise Lost. P/NP or letter grading.

156. Renaissance Worlds. (5). (Not same as course 156 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in the Renaissance period. May be repeated for credit with topic or instructor change. P/NP or letter grading.

157. Translation and Innovation in English Renais- sance and Early Modern Period. (5). (Not same as course 157 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B. Study of major works of English Renaissance literature and culture in relation to literatures of antiquity and continental Re- naissance. Topics may include translation by trans- laters of novel, Renaissance humanism, literature of love, monsters and marvels, representing nature. Oriental transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

158. Literature in History. (5). (Formerly numbered 154.) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin- daric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to topics and gendering of authorship. May be re- peated for credit with topic or instructor change. P/NP or letter grading.

161A. Poetry in English to 1850. (5). Lecture, four hours; discussion, one hour (when scheduled). En- forced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin- daric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to topics and gendering of authorship. May be re- peated for credit with topic or instructor change. P/NP or letter grading.

161B. Drama in English to 1850. (5). (Formerly num- bered 156.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in English drama up to 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

161C. Novel in English to 1850. (5). (Formerly num- bered 157.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study 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). (Formerly num- bered 160.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of writings by Blake, Wol- stonecraft, W. Wordsworth, Coleridge, and Austen, with collateral readings from such authors as Godwin, Burke, Paine, Radcliffe, Edgeworth, Baillie, G. Smith, Burns, Southey, D. Wordsworth, Lamb, DeQuincy, and Scott. P/NP or letter grading.

162B. Later Romantic Literature. (5). (Formerly num- bered 161.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Consideration of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin- daric ode, mock-epic, and verse-epistle, questions of literary imitation and originality, poetry’s relationship to topics and gendering of authorship. May be re- peated for credit with topic or instructor change. P/NP or letter grading.
development of deeper understanding of nature of Romanticism itself. Readings from work of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Woolf, Dickinson, and others. May not be repeated for credit. P/NP or letter grading.

163B. Transatlantic Romanticism, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Enforced requisites: English Composition 3 or 3H. English Romantic studies have been central in generating new conceptual frameworks for thinking through complex issues related to interconnectedness of Atlantic rim cultures. With focus on works in various cultures, ideologies, and political identities are reworked and reinscribed by transatlantic movement of peoples, ideas, and cultural artifacts, expansion of notions of Romanticism to include trans-oceanic perspectives that underlie 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, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Coverage of six novels of Jane Austen, as well as literary works that most influenced her. Mary Wollstonecraft’s Vindication of the Rights of Woman, and Maria Edgeworth’s Belinda. P/NP or letter grading.

164A. Earlier 19th-Century Poetry, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Development of 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 chanson, ode, and novel-in-verse. P/NP or letter grading.

164B. 19th-Century Critical Prose, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of traditions in critical thought from 1800 to 1900 in relation to development of cultural and literary criticism, social thought, and political writing. P/NP or letter grading.

164C. 19th-Century Novel, (Formerly numbered 164.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of development of novel from 1800 to 1900, with focus on evolution of genre in relation to cultural, social, and political contexts in which readings were composed, circulated, and received. May be repeated for credit with topic or instructor change. P/NP or letter grading.

164D. Global 19th Century, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of relationship between culture and imperialism in 18th and 19th centuries. Discussion of relationship between extra-literary texts and shifting patterns and paradigms of imperial rule, as metropolitan and peripheral spaces were transformed beyond recognition in this period. Particular attention to representations of resistance in empires, international law, communication and transport systems, political boundaries and state sovereignty, slave trade, transnational economies, travel and exploration, religious communities, military engagements, and/or cultural conflicts. May not be repeated for credit. P/NP or letter grading.

165A. Imperial Culture, 1700 to 1850, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Broad survey of representative American writers across several centuries, designed to give concise account of broad narrative of American literary development, from origins through early republic, with emphasis on genres that reflect systematic attempts to create representative national literature and attention to American national, ethnic, and postcolonial perspectives. P/NP or letter grading.

166A. American Literature, 1776 to 1832, (S). (Formerly numbered 170B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Historical survey of American literature from Revolution through early republic, with emphasis on genres that reflect systematic attempts to create representative national literature and attention to American national, ethnic, and postcolonial perspectives. P/NP or letter grading.

166B. American Literature, 1832 to 1865, (S). (Formerly numbered 171A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American fiction 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, (S). (Formerly numbered 174A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American poetry from Puritan period through end of 19th century. P/NP or letter grading.

167B. American Fiction to 1900, (S). (Formerly numbered 173A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American fiction (both novels and short stories) from its beginning to end of 19th century. P/NP or letter grading.

168. Major American Writers, (S). (Not same as course 168 prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of American literature from turn of century to end of World War II. P/NP or letter grading.

169. Topics in Literature, circa 1700 to 1850, (S). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender in literature of period known for its invention of sex/gender system. Topics may include varying representations of gender and sexuality across period, gender and authorship, and literature of embodiment. May be repeated for credit with topic or instructor change. P/NP or letter grading.

170A. American Literature, 1865 to 1900, (S). (Formerly numbered 171B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American literature from turn of century to end of World War II. P/NP or letter grading.

170C. American Literature since 1945, (S). (Formerly numbered 172B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American literature since end of World War II. P/NP or letter grading.

171A. Later 19th-Century Poetry, (S). (Not same as course 171A prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Development of English poetic genres in relation to significant movements such as aestheticism, decadence, sentimentuality, and imperialism from mid-19th century to turn of 20th century. P/NP or letter grading.

171B. 20th-Century British Poetry, (S). (Formerly numbered 165.) 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, (S). (Formerly numbered 166.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of major British novelists and short story writers from 1900 to present. P/NP or letter grading.

172A. Drama, 1850 to 1945. (S). (Formerly numbered 167.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. For Theater and Film and Television majors 10A, 10B, 10C (requisites are waived). Survey of drama in English, with its principal continental influences, from 1850 through World War II. P/NP or letter grading.

172B. Drama, 1945 to Present. (S). (Formerly numbered 168.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of drama in English, with its principal continental influences, since World War II. P/NP or letter grading.

172C. American Drama, (S). (Formerly numbered 176.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American drama from its beginning to present day. Historical period may vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

173A. American Poetry, 1900 to 1945, (S). (Formerly numbered 174B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

173B. American Poetry since 1945, (S). (Formerly numbered 174C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry since end of World War II. P/NP or letter grading.

173C. Contemporary American Poetry, (S). (Not same as course 173C prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American poetry mostly by living authors, with emphasis on emergent issues and poetic forms. May be repeated for credit with topic or instructor change. P/NP or letter grading.

174A. American Fiction, 1900 to 1945, (S). (Formerly numbered 175A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C.
10A, 10B, 10C. 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 History to 1945. (Formerly numbered 173C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5). (Not same as course 174C prior to Fall Quarter 2011.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories, mostly by living authors, with emphasis on emergent issues and aesthetics. May be repeated for credit with topic or instructor change. P/NP or letter grading.

175. American Nonfictional Prose. (5). Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American nonfictional prose (essays, autobiographies, and, other). Particular genre and/or historical period vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

176. Hispanic American Literature. (5). (Formerly numbered 178A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Interdisciplinary study of American literature in its relationships to other disciplines, including art, architecture, film, history, music, politics, and various social sciences, with emphasis on application of literary methodology to historical survey of American literature. 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, 10C. Study of American literature from hemispheric rather than nation-based perspective. Historic breadth in study of American literature while positing such crucial theoretical issues as emergence of U.S. Empire or relationship between North America and global south, including Africa, Latin America, and Caribbean. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179A. Topics in Genre Studies. (5). (Formerly named 173C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American novels and short stories since end of World War II. P/NP or letter grading.

181A. Topics in Genre Studies. (5). Course, 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.

181B. Topics in Medieval Literature. (5). (Formerly numbered 181A.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, 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). (Formerly numbered 181D.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182A. Topics in Renaissance and Early Modern Literature. (5). (Formerly numbered 181B.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, 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). (Formerly numbered 181D.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, 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 18th-Century Literature. (5). (Formerly numbered 181E.) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, 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). (Formerly numbered 181F.) 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.

183C. Topics in 20th- and 21st-Century American Literature. (5). (Formerly numbered 181G.) 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.

184. Capstone Seminar. English, (5). Seminar, three hours. Enforced requisites: courses 10A, 10B, 10C, and completion of at least four upper division courses required for major. Limited to senior English or American Literature and Culture majors. Students use knowledge from prior coursework to address current topics in discipline and work with faculty members on focused topic of research. Culuminating paper or project and class presentation required. May be repeated once for credit with topic or instructor change. P/NP or letter grading.

190H. Honors Research Colloquium in English. (1). Seminar, one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students under-taking supervised tutorial research for departmental honors seminar setting, with one or more faculty members to discuss their own work in progress and critical readings related to honors projects. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

M191A. Topics in African American Literature. (5). (Formerly numbered M179A.) (Same as African American Studies M179A.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variables. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific nationalities within African American community; themes of transnational migration; cross-cultural, interdisciplinary, traditional, 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.

M191B. Topics in Chicana/Chicano and/or Latina/Latino Literature. (5). (Formerly numbered M179B.) (Same as Gender Studies M191B and Chicana/Chicano and Latina/Latino Studies M191B.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano and/or Latina/Latino literature. Topics may include labor and Chicana/Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; literary New Mexico; specialized literary genres. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191C. Topics in Asian American Literature. (5). (Formerly numbered M179C.) (Same as Gender Studies M191C and Asian American Studies M191C.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include specialisms (autobiography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of transnational migration; cross-cultural, interdisciplinary, and queer politics. Reading, discussion, and development of culminating project. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191D. Topics in Queer Literatures and Cultures. (5). (Same as Gender Studies M191D and Lesbian, Gay, Bisexual, and Transgender Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. 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, and Transgender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. 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.

M192. Undergraduate Practicum in English: Westwind Journal. (2). Seminar, two hours. Training and supervised practicum for undergraduate student editors of Westwind literary magazine. May be repeated for credit. P/NP or letter grading.
193. Colloquia and Speakers’ Series Undergraduate Seminars: English. (1) Seminar, one hour. Limited to undergraduate students. Discussion of current critical literature and creative readings by writers, artists, and scholars. Exploration in greater depth of literary topics and creative work presented through sponsored forums, speakers’ series, and colloquia. May be repeated for credit. P/NP grading.

195CE. Community and Corporate Internships in English. (4), to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May not be applied toward major requirements. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in English. (2 to 5), Tutorial, four hours. Individual study may be arranged for juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198B. Honors Research in English. (S-S), Tutorial, to be arranged. Requisite: course 191H. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May be repeated for credit. Individual contract required. In Progress (198A) and letter (198B) grading.

199. Directed Research or Senior Project in English. (2 to 6), Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual literary research and creative projects 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. Criticism and Interpretation from Classical Era to Renaissance. (4), Lecture, three hours. Examination of major texts in history of critical theory and interpretation from pre-Socratic to Descartes, including classical literary criticism (Plato, Aristotle, Horace, Longinus), biblical hermeneutics (Bible, Midrash, St. Paul, St. Augustine, St. Thomas Aquinas), and medieval and Renaissance theories of interpretation (Dante, Boccaccio, Sidney). S/U or letter grading.

201B. Aesthetics and Criticism from Enlightenment to Decadence. (4), Lecture, three hours. Continuation of course 201A, proceeding from neoclassical and Enlightenment criticism through Victorian and decadenent aesthetic and literary criticism. Reading may include texts by Rousseau, Diderot, Pope, Hume, Kant, Schiller, the Schlegels, Coleridge, Hegel, Schelling, Arnold, Pater, Wilde, and Nietzsche. S/U or letter grading.

201C. Developments and Issues in Modern Critical Thought. (4), Lecture, three hours. Study of major figures and ideas in modern and contemporary critical theory. Readings vary from year to year but may include works by Bakhtin, Eco, Derrida, Foucault, Deleuze, Derrida, Bhabha, Heidegger, Shklovsky, Benjamin, Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, and Chomsky.


204. History of Rhetoric. (4), Lecture, four hours. Reading of basic texts in history of rhetoric and selection of contemporary readings. Survey of classical period and medieval-to-modern period in alternate years. S/U or letter grading.


230. Workshop: Creative Writing. (2 to 4), Lecture, two to four hours. Preparation: submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but may not satisfy more than one of nine courses required for first qualifying examination or any of five courses required for second qualifying examination. S/U or letter grading.

240. Studies in History of English Language. (4), Lecture, four hours. Individual seminars dealing with any single historical period from Old English period to present or development of one particular linguistic characteristic (phonology, syntax, semantics, dialectology) through various periods. May be repeated for credit. S/U or letter grading.


242. Language and Literature. (4), Lecture, four hours. Application of linguistics to literary analysis. Individual seminars dealing with one historical period (medieval and Renaissance, neoclassical, or 19th and 20th century and modern), specific authors, or contributions of specific groups of linguists to literary analysis. May be repeated for credit. S/U or letter grading.

244. Old and Medieval English Literature. (4), Lecture, four hours. Studies in poetry and prose of Old and medieval English literature; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

245. Chaucer. (4), Lecture, four hours. Limitations set by individual instructor. May be repeated for credit. S/U or letter grading.

246. Renaissance Literature. (4), Lecture, four hours. Studies in poetry and prose of Renaissance English literature, exclusive of Shakespeare; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

247. Shakespeare. (4), Lecture, three hours. May be repeated for credit. S/U or letter grading.


250. Restoration and 18th-Century Literature. (4), Lecture, three hours. Studies in poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

251. Romantic Writers. (4), Lecture, three hours. May be repeated for credit. S/U or letter grading.

252. Victorian Literature. (4), Lecture, three hours. Studies in English poetry and prose of Victorian period; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

Section 258. Studies in Drama. (4). Lecture, three hours. Studies in drama as genre from its beginning to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.


Section 261. Studies in Chicana/Chicana Literature. (4). Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicana literature and culture. Examination of political, aesthetic, economic, and cultural context that emerges in Chicana/Chicana discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

Section 263. Celtic Literature. (4). Lecture, three hours. Preparation: knowledge of one ancient or modern Celtic language. Studies in poetry and prose of early and modern Celtic literatures, chiefly Irish and Welsh; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

Section 264. Studies in Rhetoric. (4). Lecture, three hours. Special topics in classical and modern rhetoric, including substantial practice in rhetorical analysis of literary texts. May be repeated for credit. S/U or letter grading.


Section 266. Cultural World Views of Native America. (4). (Same as American Indian Studies M200B.) Lecture, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religious and medicinal rituals—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.

Section M270. Seminar: Literary Theory. (3). (Same as Asian M251, Comparative Literature M254, French M270, German M270, Italian M270, Scandinavian M270, and Spanish M294.) Seminar, three hours. Advanced interdisciplinary seminar to explore philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. S/U or letter grading.

Section M298. Interdisciplinary Studies in 17th and 18th Centuries. (4). (Same as History M298.) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

Section 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.

Section 375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice 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 not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.

Section 495A. Supervised Teaching Preparation. (2). Seminar, two hours. Required of all applicants for teaching assistantships in English. Introduction to teaching of literature intended to prepare teaching assistants for their first assignments in leading discussion sections. Practical concerns of creating assignments, grading papers, and holding conferences. S/U grading.

Section 495B. Supervised Teaching Preparation. (2). Seminar, two hours. Required of all teaching assistants in their initial quarter of teaching. Mentoring and group teaching assistant/mentor conferences. S/U grading.

Section 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.

Section 596. Directed Individual Study. (2 to 4). Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor; department chair, and graduate dean. Directed study in a field not covered by regular course offerings. S/U grading.


Section 598. M.A. 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. Consult graduate counselor to enroll or obtain information. S/U or letter grading.

Section 599. Ph.D. Dissertation Research. (4 or 8). Tutorial, to be arranged. Limited to Ph.D. 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

**ENVIRONMENTAL HEALTH SCIENCES**

Jonathan and Karin Fielding School of Public Health

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Professors

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Michael D. Collins, Ph.D.
Jared M. Diamond, Ph.D.
Curtis D. Eckert, Ph.D.
Hilary A. Godwin, Ph.D.
Oliver Hankinson, Ph.D.
Richard J. Jackson, M.D., M.P.H.
Niklas Krause, M.D., M.P.H., Ph.D.
Timothy Malloy, J.D.
André E. Nel, M.B.Ch.B., Ph.D.
Shane S. Que Hee, Ph.D.
Beate R. Ritz, M.D., Ph.D.
Wendie A. Robbins, R.N., Ph.D., F.A.A.N.
Linda Rosenstock, M.D., M.P.H.
Robert H. Schiestl, Ph.D.
Irwin H. Suffet, Ph.D.

Professors Emeriti

Arthur K. Cho, Ph.D.
Climis A. Davos, Ph.D.
John R. Fronies, Ph.D.
William C. Hinds, Sc.D.
Robert A. Mah, Ph.D.
Arthur M. Winer, Ph.D.

Associate Professors

Jane L. Valentine, Ph.D.
Yifang Zhu, Ph.D.

Assistant Professor

Patrick Allard, Ph.D.

Adjunct Professor

Thomas H. Hatfield, Dr.P.H., REHS

Adjunct Assistant Professors

Angelo J. Bellomo, M.S.
Brian L. Cole, Dr.P.H.
Pablo Cicero-Fernández, Ph.D.
James H. Gibson, Ph.D., M.P.H., REHS
Tao Huai, Ph.D.

Scope and Objectives

The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from biological, chemical, and physical hazards in the environment. Its graduates are scientists, professionals, and leaders capable of identifying and measuring agents of environmental concern; evaluating the health, environmental, and all other impacts of such agents; developing means for their effective management; and evaluating alternative policies directed at improving and protecting environments. 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 management, toxicology, built environment and health, in-
duction 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 in Environmental Health. (2). Seminar, one hour; discussion, one hour. Discussion with students in Public Health minor or master’s and doctoral students in Fielding School of Public Health. Ideal for students who feel that their background in chemistry is not strong enough. Preparation: course C200A, C200B, or 200C or are concurrently enrolled in one of those courses. Interactive seminar with focus on critical concepts in chemistry that students need for core environmental health sciences courses. P/NP, S/U grading.

C152D. Properties and Measurement of Airborne Particles. (4). Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C240. Letter grading.

C185A. Environmental Health Science Seminar. (2). Seminar, two hours; discussion, one hour. Limited to public health seniors or juniors. Individual intensive study, with scheduled meetings to be determined 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


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 determined 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.

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 in Environmental Health. (2). Seminar, one hour; discussion, one hour. Discussion with students in Public Health minor or master’s and doctoral students in Fielding School of Public Health. Ideal for students who feel that their background in chemistry is not strong enough. Preparation: course C200A, C200B, or 200C or are concurrently enrolled in one of those courses. Interactive seminar with focus on critical concepts in chemistry that students need for core environmental health sciences courses. P/NP, S/U 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 smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C225. P/NP or letter grading.

C135. Environmental Policy for Science and Engineering. (4). Lecture, four hours. 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), remediation, and emerging regulatory approaches such as management-based regulation and alternative 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: basic background 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.

C152D. Properties and Measurement of Airborne Particles. (4). Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C240. Letter grading.

C164. Fate and Transport of Organic Chemicals in Aquatic Environment. (4). Lecture, four hours. Recommended requisites: Chemistry 14A and 14B, or 20A and 20B. Examination of how and where and in what form and concentration organic pollutants are distributed in aquatic environments. Study of mass transport mechanisms moving organic chemicals between phases, biological degradation and accumulation, and chemical reactions. Effect of humic substances on these processes. Concurrently scheduled with course C257. P/NP or letter grading.

C185. Environmental Health Sciences. (6-6). Lecture, six hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants. P/NP or letter grading.

C185A. Environmental Health Science Seminar. (2). Seminar, two hours; discussion, one hour. Limited to public health seniors or juniors. Individual intensive study, with scheduled meetings to be determined 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.


C201. Seminar: Health Effects of Environmental Contaminants. (2). Seminar, two hours. Requisites: courses C200A, C200B. Environmental and public health challenges of 21st century are changing so quickly and are so intertwined with economic, social, political, and global issues that it becomes necessary for environmental health professionals to be able to operate comfortably within contextual boundaries and under pressures of real-time decision making. Examination of headlines of last 12 months that offer examples of managing change and crisis. Letter grading.

C202. Seminar: Environmental Chemistry. (2). Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

C203. Seminar: Ecotoxicology. (2). Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

C204. Seminar: Exposure Assessment. (2). Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

C205. Environmental Health Sciences Doctoral Seminar. (2). Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U grading.


C207. Introduction to Geographic Information Systems. (4). Lecture, two hours; laboratory, two hours. Introduction to geographic information systems (GIS), including use of GIS for mapping, geocoding, and data analysis. S/U or letter grading.

C208. Built Environment and Health. (4). Lecture, three hours; discussion, one hour. Limited to public health and urban planning graduate students. Interdisciplinary course on built environment and health and breaking down silos. U.S. and other developed, as well as developing, countries are facing increasingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment decisions. While hazards presented by air and water pol-
olution are well recognized for acute, infectious, and toxicological illnesses, there is increasing recognition of hazards presented by building and community de-
signs that fail to take into account the human health and safety and built environment decisions impact every age group and social and racial minority. Impacts range from very acute (motor vehicle trauma) to long term (obesity, cancer). Decisions have as their bases economic, financial, insurance, housing, and other factors. Analysis of each factor and related disease emergence.

209. Practical Applications in Environmental Health Sciences. (2), Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems faced by health practitioners 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.

210. Public Health and Environmental Microbiol-
ogy. (4), Lecture, two hours; laboratory, four to six hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Basic principles: cycling of matter, fates of natural and man-made compounds in environment, wastewater and drinking water microorganisms. S/U or letter grading.


212. Applied Ecology. (4), Lecture, four hours. Prepa-
ration: one ecology course. Application of ecological theory and principles to solve environmental problems, including conservation biology, assessment of environmental impacts, and restoration ecology and mitigation of environmental impacts. Letter grading.

213. Seminar: Practical Aspects of Biosafety and Biosecurity. (2), Seminar/discussion, two hours. Preparation: one year of introductory biology. Recommended requisite: Microbiology 101 or 102. Described for environmental health sciences graduate students and students in UCLA Biosafety Training Program. Inter-

teractive seminar with focus on critical concepts in biosafety and biosecurity. Issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional committees and coordinating groups. Students learn about how to most optimally extract important information from research papers, how to critique papers, how to express their ideas effectively in oral settings.

214. Children’s Environmental Health: Prenatal and Postnatal. (4), Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysio-

nolgy perturbations in homeostasis at any stage during life. Letter grading.

C225. Atmospheric Transport and Transformations of Airborne Chemicals. (4), Lecture, four hours. Preparation: one year each of chemistry, physics, organic chemistry, and biochemistry. Designed for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric fate and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion,
258. Identification and Analysis of Hazardous Wastes. (4). Lecture, three hours; discussion, one hour; laboratory, one hour; one field trip. Prerequisites: courses 230E, Biostatistics 100A. Designed to develop students' ability to identify, label, and quantify hazardous wastes and how workers should be protected. Provides critical understanding of all analytical 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 distribution, causes, analysis methods, and control approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2). Lecture, two hours. Introduction to broad range of topics in workplace safety through lectures on 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 and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.


259G. Fire Prevention, Protection, and Facility Design. (3). Lecture, three hours. Prerequisite: course 259A. Introduction to application of fire sciences, engineering, and management principles to prevention, suppression, and control of fires and explosions and protection of persons from property or fire or explosion damage and injury. Letter grading.

260. 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.


C265. Work and Health. (4). (Same as Community Health Sciences M278.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate level statistics as discussed in basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on workplace measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

C268. Principles of Nanobiological Interactions and Nanotoxicology. (4). Lecture, four hours. Preparation: basic understanding of biology and chemistry at the college level. Admission to University of California at undergraduate level in engineering, physical, or natural sciences. Introduction to commonly used vocabulary in nanoscience required to appreciate biological interactions and potential toxicity of nanomaterials. Discussion of synthesis and physical-chemical characterization of engineered nanomaterials. Development of understanding of properties of engineered nanomaterials and how these properties contribute to biological interactions. Relation of properties of engineered nanomaterials to their potential for transport, reactivity, uptake, and toxicity in natural environments and in body. Concurrently scheduled with course C180. S/U or letter grading.

C296A-C296N. Research Topics in Environmental Health Sciences. (2, each). Seminar, two hours. Advanced study and analysis of current topics in environmental health sciences. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.


C296C. Toxicological and Environmental Health Policy. S/U grading.

C296D. Economic Impacts of Contamination and Reclamation of Coastal Waters. S/U grading.

C296E. Molecular Topics in Boron Biology. S/U grading.


C296M. Experimental and Modeling Studies of Atmospheric Pollution. S/U grading.

C296N. Genetic Toxicology. 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 faculty instruction at UCLA. May be repeated for credit. S/U grading.

400. Field Studies in Environmental Health Sciences. (2 or 4). Fieldwork, to be arranged. Field observation and studies in selected community environmental health settings. Students must first field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units may be applied toward 44-unit minimum total required for M.P.H. degree. Letter grading.

401. Environmental Measurements. (4). Lecture, two hours; laboratory, four hours. Prerequisites: courses C200A, C200B, 35A, 35AL. Instrumental methods for laboratory and field applications to assess quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and radiation. Letter grading.

405. Operations and Management of Public Health Laboratories. (4). Lecture, four hours. Preparation: bachelor's degree in science, engineering, or public health, at least one microbiology, environmental microbiology, infectious diseases, public health microbiology, or public health laboratory course. Designed for master's and doctoral students. Principles of operation and management of public health laboratories and roles they play in public health infrastructure. Basic knowledge of microbiology assumed. Topics include assays and tests performed by public health laboratories, quality control, and leadership principles, Students, and assessment of local public health laboratory. S/U or letter grading.

410A. Instrumental Methods in Environmental Sciences. (4). Lecture, four hours; discussion, two hours; other, two hours. Prerequisite: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Environmental Health Sciences. (1). Lecture, one hour; discussion, one hour; laboratory, four hours; other, two hours. Preparation: one year each of physics, chemistry, and mathematics. Prerequisites: courses C200A, C200B, 35A, 35AL. Laboratory technique and instrumentation used in preparation and analysis of biological, environmental, and occupational samples. Letter grading.

411. Environmental Health Sciences Seminar. (2). Formerly numbered M411. Seminar, two hours. Required of graduate environmental health sciences students for one term each year. Current topics in environmental health in science, policy, and leadership. Speakers who are leading thinkers at interface of health and environment address important subjects of environmental health. May be repeated for credit. S/U grading.

412. Effective Technical Writing. (2). (Same as Environmental M412.) Seminar, two hours. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memonarias, letters, and resumes. Development of writing skills using critique, exercises, and examples. S/U grading.

454. Health Hazards of Industrial Processes. (4). Lecture, two hours; field trips, four hours. Prerequisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4). Lecture, three hours; discussion, one hour. Prerequisites: courses C200A, C200B, 401, 490A, 490B. Focus on water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. S/U or letter grading.

470. Environmental Hygiene Practices. (2). Lecture, two hours. Prerequisites: courses C200A, C200B, 401, 490A, 490B. Field methods and practices of environmental sanitation as applicable to sanitarians. Topics include theory, code enforcement, and inspection procedures for applicable environmental topic areas. S/U or letter grading.

M471. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4). (Same as Community Health Sciences CM470 and Urban Planning M470.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. 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.

501. Cooperative Program. (2 to 8). Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor. Cooperative arrangement with USC. No more than 8 units may be enrolled toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. Prerequisite: consent of UCLA graduate advisor and graduate dean. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H. and M.S. minimum total course requirement. May be repeated for credit. S/U or letter grading.
Epidemiology

Scope and Objectives

Epidemiology has been defined as the study of the distribution and determinants of disease and injury in human populations. Epidemiologists study variations of disease in relation to such factors as age, sex, race, occupational and social characteristics, place of residence, susceptibility, exposure to specific agents, or other pertinent characteristics. Also of concern are the temporal distribution of disease, examination of trends, cyclical patterns, 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 and to the control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in population groups rather than in individuals.

Epidemiology is a young field with constantly expanding boundaries. The range of activities that may be at least partly epidemiologic includes determination of the health needs of populations, 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 borrowed from other fields such as microbiology, immunology, medicine, statistics, demography, and medical geography.

There is a growing core of purely epidemiologic methodology that includes not only statistical methodology and principles of study design, but a unique way of thinking that is beyond the rote memorization of rules. The contribution of epidemiology to any study involving groups of people is being increasingly recognized and demanded.

Epidemiologists may work in many settings, including international health agencies, state and local health departments, federal government agencies and health programs, health maintenance organizations, colleges and universities, and numerous research projects privately and publicly sponsored. The objectives of the Department of Epidemiology fall into three broad categories—research, teaching, and community service. Degrees offered include the M.S. and Ph.D. in Epidemiology and, through the School of Public Health, the M.P.H. and Dr.P.H. in epidemiology and, through the School of Public Health, the M.P.H. and Dr.P.H. with a specialization in epidemiology (see Public Health Schoolwide Programs).

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees. Graduate study is available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Epidemiology offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Epidemiology.

Epidemiology

Upper Division Courses

100. Principles of Epidemiology. (4) Lecture, two hours; discussion, four hours. Preparation: one full biological sciences course. Not open for credit to students with credit for course 200A, 200B, or 200C. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

CM175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5). (Same as Honors Collegium M175) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. Concurrently scheduled with course C275. P/NP or letter grading.

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. Signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Methods I: Basic Concepts and Study Designs. (6) Lecture, six hours; discussion, four hours. Enforced requisite or corequisite: Biostatistics 100A. Introduction to basic concepts, principles, and methods of chronic and infectious disease epidemiology. Letter grading.

200B. Methods II: Prediction and Validity. (6) Lecture, six hours; discussion, four hours. Enforced requisites: course 200A, Biostatistics 100A, 100B. Introduction to basic concepts, principles, and methods of chronic and infectious disease epidemiology. Letter grading.

203. Topics in Theoretical Epidemiology. (2). 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 a change of topic. S/U grading.


M211. Statistical Methods for Epidemiology. (4). (Same as Biostatistics M211 and Statistics M250.) 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 more advanced principles and methods of biostatistics, epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M212. Statistical Modeling in Epidemiology. (4). (Same as Biostatistics M213.) Lecture, four hours. Preparation: two terms of statistics (three recommended). Recommended: course M204 or M211. Principles of modeling, including meanings of models, a priori model specification, translation of models into explicit population simulations, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.

M216. Applied Sampling. (4). (Same as Statistics CM248.) Lecture, three hours; discussion, one hour. Designed for upper division and graduate students in social or life sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, including sampling and estimation bias, and methods of generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. S/U or letter grading.

M218. Questionnaire Design and Administration. (4). (Same as Community Health Sciences M218.) Lecture, four hours. Requisites: courses 200B and 200C, or Community Health Sciences 211A and 211B. Preparation: two terms of statistics or probability and statistics, or related coursework. Questionnaire design, administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.


223. Biology and Ecology of Human Parasitic Diseases. (4). Lecture, four hours. Information on all aspects of parasitic organisms causing human disease, including their biology, behavior, epidemiology, diagnosis, and diseases they cause. From epidemiological perspective, special emphasis on way in which parasites maintain themselves in nature and in which organisms can protect themselves. Letter grading.

224. Zoonotic Diseases and Public’s Health. (4). Lecture, four hours. Examination of wide variety of infectious disease agents (viruses, bacteria, and protozoan and helminth parasites) causing diseases in individuals and populations. Emphasis on how these diseases exist in natural environment, how they are transmitted from animals to humans, and methods for their prevention and control. Letter grading.

225. Laboratory Literacy for Public Health Professionals. (4). (Same as Environmental Health Sciences M220.) Lecture, two hours; laboratory, four hours. Preparation: introductory microbiology. Requisites: courses 100A, 100B, and 200C (or 100). Designed to enable public health professionals with no laboratory knowledge to understand vocabulary and technologies of public health laboratories. Sample laboratory reports provided for discussion of implications for public health program actions. S/U or letter grading.

226. Global Health Measures for Biological Emergencies. (4). (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Requisite: course 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


229. Epidemiology of Foodborne Illnesses. (4). Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Food poisoning is significant cause of morbidity and mortality in both developing and developed world. Examination of etiologic agents of food poisoning and factors specific to foods that allow them to become agents of disease transmission. S/U or letter grading.

230. Epidemiology of Sexually Transmitted Diseases. (4). Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Introduction to different methods and techniques used in epidemiology of HIV infection and AIDS, with emphasis on the use of methods appropriate for challenging and sensitive research topics such as sexual behavior, abortion use, and sexual abuse. Letter grading.

231. Principles of Control of Infectious Diseases. (4). Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Introduction to different methodologic approaches to under-


M254. Nutritional Epidemiology I. (4), (Formerly numbered 254.) (Same as Community Health Sciences M251.) Lecture, two hours; discussion/laboratory exercise, one hour. Preparation: introductory bio-statistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic principles and methods, ranging from food-borne outbreak investigation to evidence-based regulatory assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.

M255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2). (Same as Community Health Sciences M255.) Lecture, two hours. Injuries have been the leading cause of death in children under the age of 14 in the United States. Children have specific risk factors for injuries, many of which are preventable. Presentation of approaches to research and prevention of pediatric injuries. Letter grading.

257. Advanced Nutritional Epidemiology. (2). Lecture, one hour; discussion, one hour. Preparation: introduction to biostatistics and epidemiology courses. Requisites: course 100, and 200A, 200B, and 200C (or 100). Focus on advanced topics and research, adjusted for knowledge and interests of students interested in doing epidemiologic research. Methodological aspects of research in nutritional epidemiology. Topics include why and how to conduct validation studies, adjustment for energy intake, correction of measurement error. Methods related to genetic polymorphism, biochemical markers, gene-nutrient interaction in chronic diseases. Theoretical as well as practical aspects. S/U or letter grading.

M258. Molecular Nutrition and Genetics Epidemiology of Obesity and Diabetes. (4), (Formerly numbered 258.) (Same as Pathology M259.) Lecture, four hours. Preparation: basic biochemistry, epidemiology, molecular biology, statistics, and statistical software. Survey of entire landscape of nutritional, biochemical, and genetic aspects of obesity and diabetes and their microvascular and macrovascular complications. Review of cutting-edge epidemiological studies on these seemingly distinct yet clearly clustered disorders, including so-called metabolic syndrome. Study of distributions and determinants of these disorders in Westernized populations to appreciate how and why these epidemics occurred. Through case studies students learn process of generating etiologic hypotheses that can be tested using modern molecular epidemiologic methods. Techniques and principals of molecular genetics relevant to epidemiologic studies. Analysis of real data sets that include both genotype and phenotype information, with emphasis on examination of various gene/environment interactions. S/U or letter grading.


M261. Occupational Epidemiology. (4). (Formerly numbered 261.) (Same as Environmental Health Sciences M260.) Lecture, three hours. Requisites for majors: courses 200A, 200B, 200C, for nonmajors: courses 100, 200A, 200B, 200C. Discussion of research approaches to occupational conditions, and limitations in epidemiological studies of occupational groups and environments. S/U or letter grading.

262. Seminar: Environmental and Occupational Cancer Epidemiology. (2). Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100). Discussion of changes recent epidemiologic studies of cancer, with focus on environmental and occupational exposures, especially in areas where controversies have arisen such as for electromagnetic fields and childhood leukemia, and bladder cancer and trichalometheas levels of drinking water. S/U or letter grading.

263. Exposure Assessment in Occupational and Environmental Health. (4). Requisites: courses 200A, 200B, and 200C (or 100). Exposure assessment is often most challenging aspect of epidemiologic studies of occupational and environmental health hazards. Focus on basic industrial hygiene principles and epidemiologic methods to improve exposure assessment protocols and exposure analyses for occupational/environmental health studies. S/U or letter grading.

265. Epidemiologic Methods in Occupational and Environmental Health. (2). Lecture, two hours. Introduction to epidemiologic methods applied to evaluation of health effects of occupational and environmental hazards, including study design, exposure assessment, and statistical techniques commonly encountered in research focused on assessing adverse health effects resulting from occupational and environmental exposures. Topics include clusters, meta-analysis, risk assessment, and policy development. Illustrated by case studies, with focus on understanding and evaluating and interpret current literature. Letter grading.

266. Global Health and Tropical Medicine. (4). Lecture, four hours. Introduction to tropical diseases and global health. How humanitarian health issues, maternal-child health, research in world Health Organizations, and political/social constraints all are related with respect to health on worldwide scale. Letter grading.

267. Methodologic Issues in Reproductive Epidemiology. (2). Seminar, two hours. General discussion of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and maternal and neonatal morbidity. Study design and exposure assessment and identification of potential sources of bias illustrated through review of recent studies published in literature and with particular focus on occupational and environmental exposures and birth cohorts. S/U or letter grading.

268. Introduction to Pharmacoepidemiology. (2). Lecture, two hours. Requisites: courses 200A, 200B, 200C. Pharmacoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study of effects and uses of drugs. Survey of contemporary roles of pharmacoepidemiology in drug development and public health, approaches to occupational and environmental exposures for occupational and environmental health claims. S/U or letter grading.

270. Behavioral Epidemiology. (4). Lecture, four hours. Requisite: course 100, 200A, or 200C. Introduction to range of different types of collect data and conduct analyses on behaviors studied in epidemiology research. How to collect, analyze, and interpret data on behaviors that can be associated with disease outcomes, including methods to conduct survey data (i.e., design of questionnaires, viewing techniques, use of technology to collect data) and methods to collect and analyze qualitative data (e.g., ethnographic fieldwork, focus groups, systematic observations). Overview information on epidemiology of key behavioral factors affecting human health, including sexual risk behaviors, substance usage, physical activity, and healthcare utilization. S/U or letter grading.


M272. Social Epidemiology. (4). (Same as Community Health Sciences M272.) Lecture, two hours; discussion, one hour. Requisite: course 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other sociodemographic factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

M273. Responsible Conduct of Research in Global Health. (2). (Formerly numbered 273.) (Same as Public Health M273.) Lecture, two hours; discussion, four hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

274. Topics in Chronobiology. (2). Lecture, two hours. Introduction to basic concepts and principles of circadian biology and how they relate to chronic disease epidemiology. Circadian disruption and sleep, biochemical modeling of circadian system, designing methods to study these principles in modern epidemiology, with emphasis on biologic aspects and relevant disease mechanisms. S/U or letter grading.


280. Connecting Epidemiological, Medical, and Mathematical Aspects of Infectious Diseases. (4). Lecture, four hours. Requisites: courses 200A, 200B, and 200C. To deepen and further integrate knowledge on infectious diseases, focus on small number of them to enable in-depth study. Each to be presented and discussed from three viewpoints that facilitate greater understanding: epidemiology, immunology and molecular basis, and epidemiologic and mathematical analysis. Letter grading.


294. Epidemiology and Policy of Occupational and Environmental Health Issues. (2). Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100) and/or 260. Introduction to demands that go beyond pure science, with focus on issues such as risk communication, potential influence (and ethics) of over-


375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprenticeship under active guidance of regular faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

400. Field Studies in Epidemiology. (2 or 4). Fieldwork, five days observation and study in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward M.S. minimum course requirement; 4 units may be applied toward 44-unit minimum total requirement for M.P.H. degree. Letter grading.


M403. Computer Management and Analysis of Health Data Using SAS. (4). (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisites: Biostatistics 100A, 100B (100B may be taken concurrently). Introduction to practical approaches to epidemiologic studies presented through problem sets based on actual outbreaks. Data collection, analysis, and written presentations of findings. Letter grading.

415. Epidemiology for Developing Countries. (4). Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or 100). Biostatistics 100A. Practical use of epidemiology, microcomputers, and spreadsheet models for estimating morbidity and mortality, developing intervention or prevention strategies, and setting program priorities in Third World settings. Letter grading.


M418. Rapid Epidemiologic Surveys in Developing Countries. (4). (Same as Community Health Sciences M418.) Lecture, four hours. Requisites: courses 200A, 200B, and 200C (or and/or 100), Biostatistics 100A. Presentation of how to do health surveys in Third World countries. Practical assistance for planning and organizing surveys, including use of microcomputers to develop and test questionnaire, select sample, process, and analyze data, and prepare final report. Letter grading.

420. Field Trials in Developing Countries. (4). Lecture, four hours. Requisite: course 100 or 200A or 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 areas of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. 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 who passes taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U or letter 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 M.P.H. and M.S. 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 6). Tutorial, to be arranged. Only 4 units may be applied toward M.P.H. and M.S. 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.
Adjunct Associate Professors
Abhiman Kaushal
Kobla Ladzekpo, M.A.
Chi Li, B.A.
Roberto Miranda, M.M.
Ruth Price
Bobby H. Rodriguez, D.M.A.
Ivan Varimezov, B.A.
Tzetanka T. Varimezova, B.A.
Michele A. Weir, M.A.
I Nymam Schenken, Ph.D.

Adjunct Assistant Professors
Aaron Bittel, M.A., M.S.
George R. Bohanon
Yeko A. Ladzekpo-Cole, B.A.
Barbara Morrison, A.A.
James E. Roberson, M.B.A.

Scope and Objectives
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 jazz, 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 and the study of music perception and cognition using experimental methods. In addition to academic courses, the department offers performance ensembles in jazz and 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 Department of Ethnomusicology 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.

The undergraduate major in Ethnomusicology is offered with two concentrations: one in jazz core curriculum 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 jazz, 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 and the study of music perception and cognition using experimental methods. In addition to academic courses, the department offers performance ensembles in jazz and 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 Department of Ethnomusicology 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.

The undergraduate major in Ethnomusicology is offered with two concentrations: one in jazz studies and one in world music with emphases in 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.

The concentration in jazz studies seeks to produce students who emerge as outstanding and well-rounded jazz musicians with a strong academic foundation, and to prepare students to enter professional careers in the music world, as well as graduate study in various aspects of music such as composition, arranging, film scoring, jazz performance, research, and teaching. 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.

At the graduate level, the department offers M.A. and Ph.D. degrees in Ethnomusicology, with a specialization in systematic musicology. 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.

Undergraduate Study
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.

Ethnomusicology B.A.
Capstone 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 interview/audition. Applicants who are unable to travel to UCLA have the option of submitting a videotape of musical performance, following departmental guidelines.

Preparation for the Major
All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of Fall Quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M7A, M7B, M7C and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M7A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Jazz Studies Concentration
Required: Ethnomusicology M7A, M7B, M7C, with grades of C– or better, 20A and 20B, with grades of C or better, Music 20A, 20B, 20C, with grades of C or better, 12 units of instruction in jazz performance (course 71), and 12 units of ethnomusicology world music performance organizations and/or jazz performance ensembles (courses 91A through 91Z).

World Music Concentration
Required: Ethnomusicology M7A, M7B, M7C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, Music 20A, 20B, 20C, with grades of C or better, and 12 units of ethnomusicology world music performance organizations and/or private instruction in music (courses 91A through 91Z or 92).

The Major
Jazz Studies Concentration—Composition Emphasis
Required: Ethnomusicology M110A, M110B, M111, C122A, C122B, C122C, 125A, 125B, 125C, 127A, 127B, 127C, 129A, 129B, 129C, 163, 183, 6 units of course 161T and/or 177, one 4-unit upper division elective course selected from ethnomusicology, music, or music history, one additional course selected from Ethnomusicology C124, 164, or C165, and one capstone senior recital or project (course 186).

Jazz Studies Concentration—Performance Emphasis
Required: Ethnomusicology M110A, M110B, M111, C122A, C122B, C122C, 127A, 127B, 127C, 129A, 129B, 129C, 183, 12 units of course 161T and/or 177, 12 units of course 171, one 4-unit upper division elective course selected from ethnomusicology, music, or music history, and one capstone senior recital or project (course 186).

World Music Concentration
Required: Ethnomusicology 175 or 181, 183; 12 units from courses 161A through 161Z and/or 162; and a minimum of eight courses (32 to 36 units) from one of the four ethnomusicology emphases (required courses/units vary per emphasis): (1) general world music, (2) performance/composition, (3) public ethnomusicology, or (4) scholarly research. See the departmental counselor for the list of courses for each emphasis.

Emphases (32 to 36 units minimum): To select an emphasis, students who entered the program as freshmen must submit an application to the department in the Fall Quarter of their third year in the program. Students who entered as transfers must select their emphasis during Spring Quarter of their first year of training at UCLA. The application must include (1) an up-to-date transcript, (2) a concise statement by the students explaining why the emphasis has been selected and how it will prepare them for their career goals, and (3) the approval of a faculty member who is a specialist in the emphasis. Students who decide on the general world music emphasis do not need to submit an application:
General World Music (for students interested in general training in world music): In addition to the lower and upper division core requirements, a minimum of eight 4-unit courses is required. Four 4-unit courses must be selected from one of the following groupings: (1) Americas and Europe, (2) Africa and Asia, (3) popular music and jazz, and (4) aesthetics, politics, psychology, technology. Students may complete the remaining four courses with other upper division ethnomusicology courses listed under this emphasis, with courses from other emphases, or with Ethnomusicology 188, 197E, or 197S courses.

Performance/Composition (for students interested in a career in performance and/or composition): Students who select this emphasis must have a 3.5 grade-point average in departmental lower division core courses and a cumulative 3.0 GPA at the time of application. In addition to the lower and upper division core requirements, a minimum of eight 4-unit courses is required. Students must take four 4-unit courses in this emphasis and a minimum of four 4-unit courses in the general world music emphasis. In addition, they 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 (for students interested in careers in the music industry, the music business, archiving, or arts administration): Students who select this emphasis must have a 3.5 grade-point average in departmental lower division core courses and a cumulative 3.0 GPA at the time of application. In addition to the lower and upper division core requirements, a minimum of eight 4-unit courses is required. Students must take four 4-unit courses in this emphasis and an additional two 4-unit courses in the general world music emphasis. 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 (for students interested in pursuing graduate study): Students who select this emphasis must have a 3.5 grade-point average in departmental lower division core courses and a cumulative 3.25 GPA at the time of application. In addition to the lower and upper division core requirements, a minimum of eight 4-unit courses is required. Students must take four 4-unit courses in this emphasis and may complete the remaining four courses with other upper division ethnomusicology courses listed under this emphasis, with courses from other emphases, or with Ethnomusicology 188, 197E, or 197S courses. Students must also 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.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Ethnomusicology offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Ethnomusicology.

Ethnomusicology Lower Division Courses
5. Music Around World. (5). Lecture, four hours; discussion, one hour. Survey of world’s musical traditions by selecting one or two case studies from each of 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.

10A-10B-10C. World Music Theory and Musician- ship. (5-5-5). Lecture, four hours; discussion, one hour; outside study, seven hours. Course 10A is requisite to 10B, which is requisite to 10C. Limited to Ethnomusicology and World Arts and Cultures majors. Introduction to and participation in musical systems of selected world cultures through aural and written notations, vocal and instrumental skills, melodic and rhythmic dictation, improvisation, and composition. Letter grading.

11A-11B-11C. World Music Systems and Structures. (4-5-5). Lecture, four hours; discussion, four hours; outside study, seven hours. Prerequisite: course 10C. Course 11A is requisite to 11B, which is requisite to 11C. Limited to Ethnomusicology majors. Students must receive assessment of their progress in learning materials and receive assessment of their progress in learning materials. P/NP or 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 and creativity in music to respond to and shape contemporary social processes. P/NP or letter grading.

20A-20B-20C. Musical Cultures of World. (5-5-5). Lecture, four hours; discussion, one hour; outside study, 10 hours. Prerequisite: Music 20C with grade of C or better. Exploration of world music from many different cultures, with introduction to basic ethnomusicological concepts and development of listening and analytical skills. Each course may be taken independently for credit. Letter grading.

20A. Europe and Americas; 20B. Africa and Near East; 20C. Asia.

25. Global Pop. (5). Lecture, four hours; discussion, one hour. Exploration of ways music is mediated by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

35. Blues, Society, and American Culture. (5). Lecture, four hours; discussion, one hour. Development of blues music and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other music. P/NP or letter grading.

40. Music and Religion. (5). Lecture, four hours; discussion, one hour. Survey of music in religious rituals around world, covering music and ritual of Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as religious traditions of Native Americans and syncretic religious practices in America such as African American gospel music, Brazilian Candomble, Cuban Santeria, and Haitian Vodou. Letter grading.

45. Music of Bollywood and Beyond. (5). Lecture, four hours; discussion, one hour; outside study, 10 hours. History and development of South Asian film scores in their filmic context, especially prominent songs that most distinctively characterize this genre. P/NP or letter grading.

50A-50B. Jazz in American Culture. (5-5). Lecture, four hours; discussion, one hour. Course 50A is not requisite to 50B. 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 earliest origins to 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. Offered in Late 19th Century through 1940s; 50B. 1940s to Present.

60. J.S. Bach in His World and Ours. (5). Lecture, four hours; discussion, one hour. Examination of life and music of J.S. Bach in historical and cultural context of his era through its musical manifestations in present, including changes in performance styles, scholarly studies, reception, and contemporary fan culture. P/NP or letter grading.

71. Instruction in Jazz Performance. (2). Studio, six hours. Limited to Ethnomusicology 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.

M87. Special Courses in Music. (5). (Same as Music M87 and Music History M87.) Lecture, four hours; discussion, four hours. Limited to undergraduate Ethnomusicology, Music, and Music History majors. Study and analysis of current and/or special topics in ethnomusicology, music, and music history taught by resident and visiting faculty members. May be repeated for credit with topic and instructor change. Letter grading.
C100. Audiovisual Archiving in 21st Century. (Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.)

105. Music Business. (4). Lecture, four hours; outside study, eight hours; optional music business course for Hispanic/Latino students. P/NP or letter grading.


106B. Contemporary North American Indian Music. (4). Lecture, three hours; discussion, one hour. Contemporary Native American music expression, including popular styles (folk, country, rock) and intertribal Indian musical genres (powwow), syncretic religious music, and traditional/historic Pan-Indian music. P/NP or letter grading.

107. South American Indian Music. (4). Lecture, four hours; outside study, eight hours. Native South American tradition and its role in indigenous societies. Topics include relationship between speech and song, use of music by shamans, musical structures, and use of indigenous music in creating national and popular music styles. Letter grading.

M108A-M108B. Music of Latin America. (5-8). Lecture, four hours; discussion, one hour. Course M108A is not required to 108B. Survey of traditional and contemporary music in the culture area. P/NP or letter grading.

M108A. Mexico, Central America, and Caribbean Isles. (Same as Chicana and Chicano Studies M108A). P/NP or letter grading.

M108B. Latin South America. P/NP or letter grading.

M109. Women in Jazz. (4). (Same as African American Studies M109 and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from 1880 to present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

M110A-M110B. African American Musical Heritage. (5-6). (Same as African American Studies M110A-M110B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. P/NP or letter grading.

C122A-C122B-C122C. Jazz Styles and Analysis. (4-4-4). Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Music History majors. In-depth analysis of jazz styles and repertoire intended for students with music backgrounds. Concurrently scheduled with courses C222A-C222B-C222C. Letter grading.

C122A. Early Jazz and the 1920s. Letter grading.

C122B. Bebop to Avant-garde. Letter grading.

C122C. Jazz since Sixties. Letter grading.

123. Music of Bebop. (4). Lecture, three hours. Study of jazz bebop tradition, including analysis of concepts, formal and song forms, styles of improvisation, and developments from 1940 to present. P/NP or letter grading.

124. Electric Music of Miles Davis. (4). Lecture, four hours; outside study, eight hours. Enforced requisites: courses 110C, Carefully examine the larger body of Miles Davis’ electric music (1967 to 1991). Influences and impetus that fueled his daring move from acoustic jazz to electric music. Examination of Davis’ complex and challenging relationship with industry as his art moved through periods of multidimensional growth and evolutionary development. Much detail to his use of contemporary jazz, funk, rhythm and blues, rock, soul, horn, African, Brazilian, European avant-garde, Cuban, Indian, flemenco, and ambient music. Concurrently scheduled with course C222C. Letter grading.

C125A-C125B. Jazz Composition and Arranging. (2-2-2). Lecture, four hours; outside study, four hours. Examination of various aspects of jazz composition. Difference between improvisation and note composition, as well as between composition and arrangement, and introduction to basic arranging concepts. Letter grading. P/NP or letter grading.

C125A. Early Jazz to Swing Era. Letter grading.

C125B. Bebop to Avant-garde. 25C. Jazz since Sixties. Letter grading.

C126A. Introduction to Jazz Arranging and Orchestration. (Seminar, two hours; two hours. Enforced requisites: courses 126A, 126B, and 126C. Continuation of concepts and techniques from course 126A with focus on full sectional writing and in-depth score analysis. Culminates with arrangements to be read by UCLA Jazz Orchestra. Letter grading.

C126C. Advanced Jazz Arranging and Orchestration. (Seminar, two hours; two hours. Enforced requisites: courses 126A, 126B, and 126C. Continuation of concepts from course 126B, with focus on contributions of noteworthy arrangers/orchestrators. Culminates with arrangements to be read by UCLA Jazz Orchestra. Letter grading.

127A-127B-127C. Jazz Keyboard Harmony I, II, III. (2-2-2). Laboratory, two hours; outside study, four hours. Enforced requisites: courses 11A, 11B, 11C. Course 127A with grade of C or better is enforced requisite to 127B; course 127B with grade of C or better is enforced requisite to 127C. Study of jazz harmony through use of piano keyboard. Letter grading.

129A-129B-129C. Jazz Theory and Improvisation. (2-2-2). Lecture, four hours; outside study, eight hours. Elements of jazz theory and improvisation. Letter grading. P/NP or letter grading. 29A. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply these elements to personal efforts in improvisations. 29B. Requisite: course 129A with grade of C or better. Medium-level jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply these elements to personal efforts in improvisations. 29C. Requisite: course 129B with grade of C or better. Advanced-level jazz harmonic constructions.

M130. Culture of Jazz Aesthetics. (4). (Same as Anthropology M142R and World Arts and Cultures M142R.) Lecture, three hours; outside study, eight hours. Enforced requisites: courses 20A or 20B or 20C or Anthropology 9 or 33 or World Arts and
Cultures 20. Aesthetics of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition, P/N/P or letter grading.

M131. Development of Latin Jazz. (4). (Same as Music M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of music style referred to today as Latin jazz. P/N/P or letter grading.

133. European Musics: Politics, Identities, Nationalisms. (5). Lecture, four hours; outside study, 12 hours. Limited to Ethnomusicology majors, Music, Musicology, Music History, and European Studies majors. European folk, popular, and classical music as practice that shapes ideas about national, ethnic, class, and religious identity and as tool of political domination and resistance. Letter grading.

M134. Introduction to Armenian Music. (4). (Same as Armenian M134 and Music M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Survey of history, tradition, and style of music of Armenia. Focus on number of different genres and approaches, and interactions between music and culture, society, and history. P/N/P or letter grading.

136A. Music of Africa. (5). Lecture, four hours; discussion, one hour; outside study, 10 hours. Introduc- tion to music of Africa through general discussion of select topics such as continent and its peoples, function, musician, instruments, musical structure and related arts, and contemporary music. P/N/P or letter grading.

C136B. Music of Africa. (4). Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions from Africa, and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C236B. Letter grading.


C141. Music of Turkey and Iran. (4). Seminar, three hours. Limited to junior/senior Ethnomusicology majors. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their 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 C241. Letter grading.

146. Folk Music of South Asia. (4). Lecture, three hours; laboratory, one hour. Illustrated survey of some regional genres, styles and musical instruments found in India and Pakistan, with special reference to religious, social, economic, and cultural context of their occurrence. P/N/P or letter grading.

147. Survey of Classical Music in India. (4). Lecture, three hours; three hours of section. Introduction of melodic, metric, and formal structures of Indian classical music in context of religious, sociocultural, and historical background of India. P/N/P or letter grading.

C150. Music and Politics in East Asia. (4). Lecture, four hours. Limited to Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had direct and often indirect impacts 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.

C155. Intangible Cultural Heritage Worldwide. (4). Lecture, three hours. Designed for Ethnomusicology, Music History, and World Arts and Cultures majors. Theories and empirical research on how distinct officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of history of conservation; concepts of tangible and intangible cultural heritage, 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 indignity 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 citizens, community initiative, and professional organizations in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C255. Letter grading.

C156A-156B. Music in China. (4-4). Letter grading. C156A. Lecture, four hours; requisites: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres and contexts in which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C256A. 156B. Lecture, three hours; laboratory, two hours. Requisite: course C156A. Introduction to various notational systems. Analysis of representative styles.


158A-158B-158C. Studies in Chinese Instrumental Music. (4-4-4). Lecture, three hours; laboratory, one hour, P/N/P or letter grading. 158A. Study of literature, major sources, paleography, theory, and philosophy of Ch’in, including transcription and analysis. 158B. Study of literature, major sources, paleography, theory, and philosophy of P’i P’a, including transcription and analysis. 158C. Comprehensive study of Chinese musical instrumentation system, specific musical notation, and use in context of Chinese society.

C159. Music on China’s Periphery. (4). Lecture, four hours; outside study, eight hours. Designed for undergraduate Ethnomusicology, Music History, and World Arts and Cultures majors. Survey of musics 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 C259. P/N/P or letter grading.

160. Survey of Music in Japan. (4). Lecture, three hours. Survey of main genres of Japanese traditional music, including Gagaku, Buddhist chant, Biwa music, Koto music, Shamisen, and contemporary music; emphasizing role of these musics in various theatrical forms. P/N/P or letter grading.


175. Sociology of Music. (4). Lecture, four hours. Designed for Ethnomusicology, Music History, and Music Industry majors. Introduction to sociology of music, its principles and basic concepts, and its critical significance for sociomusicological inquiry, including study of popular music, ethnomusicology, and cultural politics of music. CM182. Music Industry. (2 to 4). Lecture, two hours; laboratory, two hours; outside study, eight hours. Exploration of music in film, animation, and dance through lens of cognitive psychology, with focus on interpretation of moving image relative to model of musical meaning. Concurrently scheduled with course C276. Letter grading.

177. Jazz Combo. (2). Activity, two hours; laboratory, four hours. Small group performance of various styles in ensemble. Designed for jazz studies concentration majors. May be repeated for a maximum of 18 units. Letter grading.


181. Anthropology of Music. (4). Lecture, four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of social behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, political, religious, and social structures. CM182. Music Industry. (4, Same as Music CM182. Music History CM186, and Music Industry M182.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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 the 1890s, expanding through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.


184. Public Ethnomusicology. (4). Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how music is marketed, 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 C286. Letter grading.

185. Information Literacy and Research Skills. (1). Tutorial, one hour. Limited to Ethnomusicology majors. Designed to assist students with becoming information literate, that is, critically evaluate and use print and electronic information effectively and ethically. P/NP grading.

186. Senior Recital or Project. (2). Tutorial, one hour. Limited to seniors. Must be scheduled with faculty adviser. Must be scheduled with faculty adviser. Must have 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.

188. Special Courses in Ethnomusicology. (4). Lecture, four hours; outside study, eight hours. Selected topics in ethnomusicology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

193. Journal Club Seminars: Ethnomusicology. (4). 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. Comprehensive Examination in Ethnomusicology. (2 to 4). Seminar, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. 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.

195B. Community or Corporate Internships in Public Ethnomusicology. (2 to 4). Tutorial, six to 12 hours. Limited to seniors in public ethnomusicology emphasis. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for maximum of 8 units, individual contract with supervising faculty member required. P/NP or letter grading.

196. World Music Teaching Practicum. (4). Seminar, two hours; fieldwork, three hours; outside study, seven hours. Limited to junior/senior Ethnomusicology majors. Examination of in-class and fieldwork teaching of world music. Concurrently scheduled with course C100. S/U or letter grading.

197E. Individual Studies in Ethnomusicology. (2 to 4). Seminar, three hours; outside study, eight hours. Selected topics in ethnomusicology, with scheduled meetings to be arranged between faculty member and student. May be repeated for a maximum of 8 units, individual contract required. P/NP or letter grading.

205. Seminar: Information Technology and Research Skills. (4). Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practice. Basic skills for research on and about music that is essential to student careers as ethnomusicologists, specifically information technology skills, aesthetics, and representation tools for nonlinguistic acoustic phenomena. Basic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to create and organize information sources related to field of ethnomusicology. Letter grading.

206. Integrating Theory with Ethnography. (4). Seminar, three hours. Designed to show how theory and primary research cannot exist without each other, and how ethnomusicologists and other disciplinary fieldworkers, through theoretical writings and ideas with their ethnographic or historical data. Reading of several recent ethnographies, mostly about music and possibly historical studies, in tandem with theoretical writings that inform arguments of these books. Letter grading.


271. Seminar: Acoustics of Music. (6). Seminar, three hours. Requisites: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Also include 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: Music. (6). Seminar, three hours. Selected topics in psychology of music, including recent findings in brain research, musical perception, learning, cognition, memory, therapy, affect, measurement, and interpretation. May be repeated once for credit. S/U or letter grading.

275. Seminar: Aesthetics of Music. (6). Seminar, three hours. Specific topics in Western and non-Western aesthetic thought, including value, meaning (semiotics), historical development of theoretical perspectives and critical theory, and interpretation. May be repeated once for credit. S/U or letter grading.

C276. Psychology of Film Music. (4). Lecture, four hours; outside study, eight hours. Exploration of music in film, animation, and dance through lens of cognitive psychology, with focus on interpretation of film music relative to model of musical meaning. Concurrently scheduled with course C176. Letter grading.

279. Seminar: Musicology. (6). Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.


285. Seminar: Comparative Music Theory. (6). Seminar, three hours. Comparative study of codified music theories of select cultures—Western and non-Western—considered in themselves and as expressions of their societies. Theory considered as science of music; its place between cultural values and artistic practice in different civilizations. S/U or letter grading.

C286. Public Ethnomusicology. (4). Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and policy-oriented in approach. Concurrently scheduled with course C184. 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 perceived, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

289. Research Design and Grant Writing in Ethnomusicology. (4). Seminar, three hours; outside study, nine hours. Design of dissertation research proposal, locating and applying for dissertation fellowship grants, organizing and presenting advanced academic proposals with sophisticated methods and professional writing skills. S/U or letter grading.


291. Ethnomusicology Colloquium Series. (1). Research group meeting, one hour. Limited to graduate ethnomusicology students. Introduction to current 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–2922. 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. Only 4 units may be applied toward M.A. minimum course requirements. S/U or letter grading.

395A. 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 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.

596. Directed Individual Studies. (2, 4, or 6). Tutorial, to be arranged. Limited to M.A. minimum course requirements. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4). Tutorial, to be arranged. May be repeated for credit. S/U grading.


**European Studies**

See International and Area Studies

**Family Medicine**

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Michelle Anne Bholat, M.D., M.P.H., Vice Chair, Clinical Affairs

Denise K.C. Sur, M.D., Vice Chair, Education

**Directors**

Adolfo Aguilera, M.D., Riverside County

David Araujo, M.D., Ventura County

Pamela Davis, M.D., Northridge Hospital

Lynne M. Diamond, M.D., Pomona Valley

Kathleen Dor, M.D., Kaiser-Woodland Hills

Theresa Nevarez, M.D. M.B.A., Harbor-UCLA

John K. Su, M.D., Kaiser-Sunset

Denise K.C. Sur, M.D., UCLA

**Scope and Objectives**

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 (1) an appreciation of the breadth and scope of family medicine, (2) a basic knowledge in the broad content areas of family medicine, and (3) 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 the primary care physician 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 health care issues facing underserved and immigrant populations in urban America, as well as an introduction to health services research in family medicine.

Family medicine faculty members are in leadership roles in the doctoring curriculum and in the Primary Care College. All first-year students are assigned to work with a family medicine preceptor once a month on a longitudinal basis for the entire year as part of the doctoring program. In the third and fourth (clinical) years, required and elective opportunities exist. All students take a required four-week clerkship in the third year, which is offered at over 10 teaching sites.

For further details on the Department of Family Medicine, see http://www.uclahealth.org/main.cfm?id=2336.
Family Medicine

Upper Division Course

199. Directed Research in Family Medicine. (2 to 8). Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Film, Television, and Digital Media

School of Theater, Film, and Television

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Thomas F. Denove, B.A.
Gyula Gazdag, M.F.A.
Marina Goldovsky, Ph.D.
Peter Guber, LL.M., Studio Professor
Deborah Nadoolman Landis, Ph.D. (David C. Copley Professor for Study of Costume Design)
Stephen D. Mamber, Ph.D.
William McDonald, M.F.A.
Kathleen A. McHugh, Ph.D.
Celina L. Mercer, M.F.A.
Chon A. Noriega, Ph.D.
Nancy Richardson, M.F.A.
Teri E. Schwartz, M.A., Dean
Charles E. Sheetz, B.A.
Becky J. Smith, M.A.
Richard Walter, M.A.

Professors Emeriti
William B. Adams, M.A.
Jerzy Antczak, M.A.
Nicholas K. Browne, Ed.D.
William Froug, B.J.
A.P. Gonzalez, M.A.
Richard C. Hawkins, M.A.
Lewis R. Hunter, M.A.
Walter K. Kingson, Ed.D.
Barbara Marks
Dane F. McLaughlin, B.A.
William H. Menger, M.A.
Robert Rosen, M.A.
Darrell E. Ross, M.F.A.
Delia N. Salvi, Ph.D.
Ruth E. Schwartz, Ph.D.
Vivian Sobchack, Ph.D.
Howard Suber, Ph.D.
Peter Wolfinen, B.A.
John W. Young, M.A.

Associate Professors
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Walter K. Kingson, Ed.D.
Lewis R. Hunter, M.A.
Richard C. Hawkins, M.A.
A.P. Gonzalez, M.A.
William Froug, B.J.

Assistant Professors
Allison A. Field, Ph.D.
Jasmine N. Trice, Ph.D.

Lecturers S.O.E.
Harold L. Ackerman, M.A.
Mark McCarty, M.A., Emeritus

Lecturers
Tim T. Albaugh, M.F.A.
Christopher Appelhans
Marc Arness
Bethany Babayak, B.A.
Bill J. Barminski
Neema Barnette, M.F.A.
Deborah Baron
Eric Baum
David F. Beauudy
Suny Behar Parker, M.F.A.
Steven Blume, B.S.
Vincent M. Brook, Ph.D.
Reginald Brown
Jason Brush
Robert A. Burgos
Jeffrey A. Burke
Thomas M. Burns
James J. Calicino, B.F.A.
Elizabeth Cantillion Wyler
Patricia Cardoso
David Chambers
Julie Chambers
Greg D. Cohen
Russell H. Edmonds
Richard Edwards, M.F.A.
Anthony Fanning
James E. Franco, B.A.
Alexander S. Franklin, M.F.A.
Alan L. Friel, J.D.
George Gary, M.F.A.
Harrison P. Gish
Nicholas Griffin
Charles Haid
Cecelia Hall
Rhonda Hammer, Ph.D.
Benjamin U. Harris, M.F.A.
Brandi Holland
Charles D. Holland, M.A., J.D.
David Johnson, M.F.A.
Michael W. Johnson
Steve Kanter
Rory M. Kelly, M.F.A.
Thomas A. Kemper
Scott A. Kosar
Jonathan A. Kunz, Ph.D.
Neil Landau, B.A.
Valerie M. Lettera
Hans-Martin Liebing
David MacMillan
Maja Manoljovic
Eric Marin, M.A.
Beau Marks
Eric F. Martin, M.A.
Kathleen McInnis, B.A.
Joshua J. Morgan
Paul Nagle, B.A.
Tom Nunan, B.A.
Deland Nuse
Rebecca Olston
Robin B. Pelleck
Robert Pool
Teresa M. Press Max
Brian Price
Barry Primus
Daniel J. Pyne, M.F.A.
Joseph Rosenberg
Mark E. Rubin
Catherine E. Schulman Alyn
Peter G. Silsrom
Robert Skor, M.F.A.
Karen Smalley
Charles Solomon
Christopher Spicer, J.D.
Belinda S. Starkie, M.F.A.
Daniel R. Steinhart
Beth Sterner
James Strain, M.A., M.F.A.
Kenneth Sudleeson, J.D.
John W. Sweet, M.F.A.
Wilma Thoben
Neil H. Thompson

Adjunct Professors
Myrl A. Schreibman, M.F.A.

Visiting Assistant Professors
Channing Dungey, B.A.
Tim Good
David Hoberman
Mali H. Kinberg, Ph.D.
Silvia C. Kratzer, Ph.D.
Maggie Murphy
Michael Puopolo, M.B.A.
April Shawhan
John Simmons, M.F.A.
Michelle Weiss

Scope and Objectives

The purpose of the Department of Film, Television, and Digital Media is to develop in its students a scholarly, creative, and professional approach to film, television, and digital art forms. The aim of the department is to train graduates who will eventually make original contributions in their chosen field.

The department offers an undergraduate minor in Film, Television, and Digital Media, an undergraduate program leading to the Bachelor of Arts in Film and Television, and graduate programs leading to the Master of Arts, Master of Fine Arts, and Ph.D. degrees in Film and Television.

For current or specific information about the programs and faculty members, see http://www.tft.ucla.edu/programs/film-tv-digital-media-department/.

Undergraduate Study

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 workshopping 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.

Film and Television B.A.

Capstone Major

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.

Admission
Students are admitted for Fall Quarter only. Admission is highly competitive, and only a limited number of students can be accepted each year. Applicants are required to submit two letters of recommendation and a portfolio of original written work consisting of (1) a personal essay, (2) a critical essay on a film or major television program, and (3) a creative writing sample. For more specific information on admission requirements, see http://www.ftl.ucla.edu/filmba.

Due to curriculum changes, students in the Theater major are not allowed to change their major to Film and Television at the end of their sophomore year.

Transfer Students
Transfer applicants to the Film and Television major with 90 or more units are required to submit a supplemental application and meet UCLA transfer requirements.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admission.c.html for up-to-date information regarding transfer selection for admission.

Preparation for the Major
Required: Film and Television 10A (3 units), 10B (3 units), one history, literature, or production course selected from Theater 10, 15, 20, 28A, 28B, 28C, or 30.

The Major
Required: Film and Television 100A (3 units), 100B (3 units), 106A, 106B, 106C, 110A, 110B (3 units), and one course from 107, 108, 112, 113, 114, or M117; one course from C132 or C133; one capstone departmentally sponsored internship (course 195) taken in conjunction with course 183A or 183B or 183C and one capstone senior thesis project (course 199); and a senior concentration (at least 20 units) from one of the following areas (courses previously taken above may not be applied toward the senior concentration): (1) film production—courses 175A, 175B, 178; (2) television and video production/narrative—courses 165, 176A, 176B, (3) television and video production/documentary—courses 176A, 176B, 186A, (4) screenwriting—courses 135A, 135B, 135C, (4) animation—courses 181A, 181B, 181C, or (5) cinema and media studies—courses 106A, 106B, 106C, 107, 108, 110C, 112, 113, 114, M117.

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.

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 upper division courses that introduce students to the practice and critical study of film, television, and digital media.

To enter the minor students must have declared a major in a department other than the Film, Television, and Digital Media Department, be in good academic standing (minimum 3.0 grade-point average), have completed at least three film and television courses with grades of C or better, and file an application and essay 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.


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 item 5.

Students must 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.

Film and Television
Lower Division Courses
10A. Freshman Symposium. (1). Laboratory, three hours. Limited to Film and Television majors. Structured forum in which freshmen meet on regular basis to discuss curricular issues, meet with faculty members from department, and have exposure to array of guest speakers from media industries. May be repeated twice. Letter grading.

10B. Sophomore Symposium. (1). Laboratory, three hours. Requisite: course 10A. Limited to Film and Television majors. Structured forum in which sophomores meet on regular basis to discuss curricular issues, meet with faculty members from department, and have exposure to array of guest speakers from media industries. May be repeated twice. Letter grading.

M50. Introduction to Visual Culture. (5). Same as English M50. Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

72. Production Practice in Film, Television, and Digital Media. (2 to 4). Lecture, three hours; laboratory, three hours. Exploration of research, analysis, and conceptualization of dramatic narrative and laboratory experience in one or more various aspects of contemporary production and postproduction practices for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

Upper Division Courses
100A. Junior Symposium. (1 to 2). Formerly numbered 100. Laboratory, three hours. Limited to Film and Television majors. Structured forum in which undergraduate juniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. May be repeated for maximum of 4 units. Letter grading.

100B. Senior Symposium. (1 to 2). Laboratory, three hours. Requisite: course 100A. Limited to Film and Television majors. Structured forum in which undergraduate 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. May be repeated for maximum of 4 units. Letter grading.

101. Story and Style: Theory and Practices of Filmmaking. (5). Lecture, three hours; screenings, three hours. Systematic analysis of how filmmakers use sound and image to tell stories on screen. Viewing of selected films as case studies to understand relationship of theory to practice and to develop skills in critical thinking, analytical writing, and strategies for creating original film and video productions. P/NP or letter grading.

106A. History of American Motion Picture. (6). Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as developing art form and as medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

Graduate Degrees
The Department of Film, Television, and Digital Media offers Master of Arts (M.A.), Master of Fine Arts (M.F.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Film and Television.
106B. History of European Motion Picture. (6). Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as developing and index as medium of mass communication. May be repeated once for credit with consent of department and topic change. P/NP or letter grading.

106C. History of African, Asian, and Latin American Film. (6). Lecture/screenings, eight hours; discussion, one hour. Study of developments in cinema. Evaluation of historical, social, and cultural framework and context within which African, Asian, and Latin American films have developed. P/NP or 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. Philoso- phy 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.

110A. American Television History. (5). Lecture/ screenings, five hours; discussion, one hour. Historical survey of American television history from its inception to present. Examination of interrelationships between program forms, industrial paradigms, social trends, and cultural conflicts with television's history. Lecture, three hours; laboratory, four hours. (Formerly numbered 130A.) Lecture, one hour. Corequisite for course 131. P/NP or letter grading.

110C. World Media Systems. (4). Lecture/viewing, four hours; discussion, one hour. Requisite: course 110A. Designed for juniors/seniors. Global analysis of internal and external broadcasting services, with emphasis on their motives, origins, technologies, and programming. Special attention to political, economic, and regulatory constraints and common world media issues. P/NP or letter grading.

111. Women and Film. (6). (Same as Gender Studies 111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, female genres, and images of women in Hollywood picture both as developing and index as medium of mass communication. May be repeated once for credit with consent of department and topic change. P/NP or letter grading.

112. Film and Social Change. (5). Lecture/screenings, eight hours; discussion, one hour. Development of documentary film and its relationship 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 once for credit with consent of department and topic change. P/NP or letter grading.

113A. Film Directors: Hitchcock and His Influence. (5). Lecture/screenings, five hours; discussion, one hour. Study of films of Alfred Hitchcock and influence he has had on other filmmakers. Lectures and screen- ings of Hitchcock films in first seven weeks, with coverage of films that are closely patterned after Hitch- cock's in last three weeks. P/NP or letter grading.

113B. Film Authors: Women Filmmakers. (5). Lecture, five hours; discussion, one hour. Consideration of contributions to world cinema made by women directors, with focus on women directors working in various modes of production (e.g., silent cinema, industry cinema, avant garde) with specific investigations of several auteurs, specifically Dorothy Arzner, Jane Campion, and Cheryl Dunye. 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 once for credit with consent of department and topic change. P/NP or letter grading.


117. Chicanoos in Film/Video. (5). (Same as Chi- cano and Chicano Studies M114.) Lecture/screen- ings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema from political, socio-economic, cultural, and aesthetic perspective. Examination of representation of Mexican Americans and Chicanos in four Hollywood genres—silent, tragic films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced be- tween 1908 and 1980. Examination of recent Chi- canoos and Chicano film and television, with emphasis on exposure, lighting, and selection of film, camera, and lenses. Concurrency required. Letter grading.

C118. Intermediate Cinematography. (4). Lecture, two hours; laboratory, two hours; discussion, one hour. Requisites: courses 100A, 150, 185. Intermediate study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. Concurrently scheduled with course C420. Letter grading.

122B. Introduction to Art and Technique of Film- making. (4). (Formerly numbered 188B.) Lecture, four hours; discussion, one hour. Students acquire under- standings of industry, screenwriting, editing, finance, direction, and distribution. Examination of history of art and technique of film making for screenwriter and movie producers. May be repeated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.

122C. Design and Experimental Digital Film Pro- duction. (4). (Formerly numbered 188C.) Lecture, three hours; discussion, one hour. Students conceive, write, polish, shoot, and edit short digital experi- mental movies and code on classmate projects. Ex- perimentation with image, sound, and montage; exami- nation of scenes from feature films and experi- mental short subjects. By end of term, students have one- to three-minute digital films with titles and sound track. P/NP or letter grading.

122D. Film Editing: Overview of History, Technique, and Practice. (4). (Formerly numbered 188D.) Lecture, three hours. Practical application of film editing techniques, how they have evolved, and continue to evolve. Examination of history of editing, as well as current editing trends, terminology, and workflow. P/NP or letter grading.

122E. Digital Cinematography. (4). (Formerly num- bered 188E.) Lecture, three hours. With lectures, screenings, and demonstrations, study of principles of digital cinematography. How tools and techniques of visual storytelling process. Topics include for- mats, aspects, ratios, cameras, lenses, special effects, internal menu picture manipulation, lighting, composi-
locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C430. P/NP or letter grading.

133. In-Depth Seminar to Fundamentals of Screenwriting. (4). (Formerly numbered 130B.) Lecture, one hour; discussion, one hour. Not open for credit to students with credit for course C132/C430 (or upper division) unless by special permission of instructor. Descriptive analysis of problems, problems, and development of professional screenwriter's vocabulary for constructing, deconstructing, and reconstituting their own work. Screenings of films and selected readings in class and by assignment. P/NP or letter grading.


135A-135B-135C. Advanced Screenwriting Workshops. (8-8-8). Laboratory, three hours. Requisites: courses 100A, 133, 185. Course 135A is requisite to 135B, which is requisite to 135C. Course in film and television writing. First act of original screenplay to be developed in course 135A, followed by second act in course 135B, and third act in course 135C. Letter grading.


C142. Digital Imagery and Visualization. (4). Lecture, three hours; discussion, one hour; laboratory, three hours. Introductory hands-on investigation of techniques of digital still imaging and aesthetics of digital image, in context of examining dynamics of cultural constructions and visual codes. Students conceive and produce several digital image visualizations. Concurrently scheduled with course C242. Letter grading.

C143. Moving Digital Image. (4). Lecture, three hours; laboratory, three hours. Investigation of different ways of creating, manipulating, and linear moving image (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of short projects. Concurrently scheduled with course C243. Letter grading.

C144. Interactive Multimedia Authoring. (4). Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interface design, and interactive audiovisual construction. Students conceive and produce several interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C244. Letter grading.


146. Art and Practice of Motion Picture Producing. (4). Lecture, three hours. Exploration of role of producer as both artist and business person. Comparative analysis of screenplays and completed films. Emphasis on assembly of creative team and analysis of industrial context. Limited to independent student projects. Screenings viewed outside of class and on reserve at Powell Library. Letter grading.


148. Advanced Digital Media Workshop. (4). Discussion, four hours; laboratory, two hours. Designed for students with previous laboratory course experience, course provides opportunity to create larger-scale digital media works with advanced software tools and techniques in small process-oriented, creative workshop environment. May be repeated once for credit. Concurrently scheduled with course C248. Letter grading.


151. Introduction to Experimental Filmmaking. (4). Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Techniques of image manipulation, design, and art direction. Production and completion of exercise (no longer than three minutes), using 16mm nonsound film. May be repeated twice for credit. Letter grading.

152. Film and Television Sound Recording. (4). Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to principles and practices of film and television sound recording, including supervised exercises. P/NP or letter grading.

C152C. Digital Audio Postproduction. (4). Lecture, three hours; laboratory, three hours. Limited to departmental majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and procedures available to today's filmmakers. Coverage of many technical, equipment, and software 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. Requisites: courses 100A, 150, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling by directors, cinematographers, and screenwriters. 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, to be arranged. Requisites: courses 100A, 185. Limited to Film and Television majors. Introduction to artistic and technical problems of film editing, with practical experience in editing of image and synchronization. Letter grading.

C154B. Advanced Film Editing. (4). Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of student film project. Preparation for final or completion to edit work of another director. Requisites: courses 100A, 154, 185. Limited to Film and Television majors in postproduction phase with advanced knowledge of organization and principles of production and postproduction process. Students may also propose to edit significant scene given to them by instructor. Concurrently scheduled with course C454B. Letter grading.


163. Directing Cameras. (4). Laboratory, eight hours. Requisites: courses 100A, 185. Limited to Film and Television majors. Investigation of expressive potential of image within and beyond narrative from directorial perspective. Experiments with working methodologies that stimulate visual creativity and positioning image as fundamental element of cinematic expression. Letter grading.

164. Directing Actors. (4). Laboratory, four hours. Exercises in analysis of script and character for purpose of directing actors. Emphasis on eliciting best possible performance from actors. Course may be repeated twice for credit. P/NP or letter grading.

165. Advanced Narrative Television Directing. (4). Laboratory, six hours. Requisites: courses 134, 185. Limited to Film and Television majors. Supervised exercises in television multicamera direction, with emphasis on creative use of cameras, sound, composition, and communication with those in front of and behind camera. May be repeated twice for credit. Letter grading.

C168. Creative Location Film Production. (8). Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer's program students. Problems of location, production, directing, cinematography, and postproduction. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C468. Letter grading.

C170A. Introduction to Digital Effects. (4). Lecture, three hours; laboratory, to be arranged. Introductory study of digital effects production, with specific focus on motion graphics, compositing, effects processing, and title sequences. Concurrently scheduled with course C470A. Letter grading.

175A-175B. Undergraduate Film Production. (8-4 to 8). Requisites: courses 100A, 185. Limited to Film and Television majors. P/NP or letter grading.

C175A. Undergraduate Film Production. (8). Lecture, four hours; laboratory, eight hours. Writing, preproduction, and production for short film. C175B. Lecture, three hours; laboratory, eight hours. Compilation of postproduction (editing, creation of sound tracks) for short film begun in course 175A.

176A-176B. Advanced Undergraduate Video Production (8-4 to 8). Discussion, three hours; laboratory, to be arranged. Requisite: course 185. Limited to Film and Television majors. Preparation for animated film. May be repeated for maximum of 12 units, but only 8 units may be applied toward Film and Television major. Letter grading.

C178. Film and Television Production Laboratory. (2 or 4). Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production. May be repeated for maximum of 12 units, but only 8 units may be applied toward Film and Television major. Letter grading.


C181B. Writing for Animation. (4 or 8). Lecture, six hours; studio, to be arranged. Requisite: course 181A. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. P/NP or letter grading.

C181C. Animation Workshop. (4 or 8). Lecture, six hours; studio, to be arranged. Preparation: storyboard at first class meeting. Requisite: course 181A. Organization and integration of equipment needed in animation to form complete study of selected topic. May be repeated for maximum of 16 units. P/NP or letter grading.
183A. Producing I: Film and Television Development. (4). Lecture, three hours. Open to nonmajors. Critical analysis of contemporary entertainment in- dustry and an analytical approach to understanding and implementing producer’s role in development of feature film and television scripts. Through scholarly and trade journal readings, in-class discussions, script analysis, and working relationships, exposure to varied industries that comprise feature film and television development process. Basic introduction to story and exploration of preproduction technique for evaluating screenplay; plays 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 Exhibition. (4). Lecture, three hours. Open to nonmajors. Marketing and distribution of feature films across multiple exhibition platforms and subsequent reception and consumption by audiences. Focus on en- gagement between network and 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.

184A. Overview of Contemporary Film Industry. (4). Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood film industry, with emphasis on opera- tions of studios and independent distribution compa- nies, their development, marketing, and distribution systems, and their relationship to independent produc- tion. Letter grading.


185. Undergraduate Television and Video Production. (6). Laboratory, six hours. Limited to Film and Television majors. Seminar and group exercises in techniques of television and video production. Letter grading.

186A. Introduction to Documentary Production. (4). Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186A. Limited to Film and Television majors. Introductory viewing and discus- sion of selected documentaries and instruction in vari- ous production skills necessary to create video documen- taries. Completion of series of exercises from conceptualization through postproduction, culmi- nating in production of short documentary. Letter grading.

186B. Intermediate Documentary Production Workshop. (4). Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186A. Limited to Film and Television majors. Intermediate viewing and discussion of selected documenta- ries and instruction in various production skills neces- sary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Letter grading.

186C. Advanced Documentary Production Workshop. (4). Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 186B. Limited to Film and Television majors. Ad- vanced viewing and discussion of selected documenta- ries and instruction in various production skills neces- sary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Letter grading.

187A-187B-187C. Producing and Directing Re- mote Multicamera Production. (4-6-6). Lecture/lab- oratory, three hours (additional hours to be arranged). Letter grading. 187A. Professionally oriented lecture/ laboratory course patterned after professional ex- perience and analysis of various conceptual frameworks and industrial strategies within which these relation- ships are conceived and operate. May be taken inde- pendently for credit. Letter grading.

187A-187B-187C. Producing and Directing Re- mote Multicamera Production. (4-6-6). Lecture/lab- oratory, three hours (additional hours to be arranged). Letter grading. 187A. Professionally oriented lecture/ laboratory course patterned after professional ex- perience and analysis of various conceptual frameworks and industrial strategies within which these relation- ships are conceived and operate. May be taken inde- pendently for credit. Letter grading.

188A. Special Courses in Film, Television, and Dig- ital Media. (4). Lecture, three hours; discussion, one hour. Special topics in film, television, and digital media for undergraduate students taught on experi- mental or temporary basis. May be repeated for credit. P/NP or letter grading.

189A. Film Curatorship. (4). Lecture, two hours; dis- cussion, two hours; laboratory, four hours. Study of principles and techniques of film curatorship and re- search, including but not limited to acquisitions, cata- loguing, and exhibition. Special attention to application of new technology, equipment, and program materials to film archival-library design for research and teaching. P/NP or letter grading.

190A. TelevisionCuratorship. (4). Lecture, two hours; discussion, two hours; laboratory, four hours. Study of principles and techniques of television curatorship and research, including but not limited to acquisitions, cataloguing, storage, and retrieval systems. Special atten- tion to application of new technology, equipment, and program materials to television archival-library design for research and teaching. P/NP or letter grading.

190B. Television Curatorship. (4). Lecture, two hours; discussion, two hours; laboratory, four hours. Study of principles and techniques of film curatorship and research, including but not limited to acquisitions, cataloguing, and exhibition. Special attention to application of new technology, equipment, and program materials to film archival-library design for research and teaching. P/NP or letter grading.

191. Corporate Internships in Film, Television, and Digital Media. (2 to 6). Tutorial, to be arranged; field- work, 14 to 20 hours. Enforced corequisite: course 183A or 183B or 183C. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual work contract with super- vising faculty member required. P/NP grading.

192. Directed Research or Senior Project in Film, Television, and Digital Media. (2 to 8). Tutorial, to be arranged; fieldwork, four to eight hours. Limited to seniors. Supervised individual research or investigation under the guidance of faculty mentor. CULminating paper or project required. May be taken for maximum of 8 units. Individual contract required. P/NP or letter grading.

200. Seminar: Bibliography and Methods of Research in Film and Television. (6). Seminar, three hours; laboratory, four to six hours (additional screens- ings and/or viewings as required). Designed for graduate students. Examination and study of research methods, techniques, and resources related to film and television research, including develop- ment of computer skills for preparation of bibliogra- phy, online database searching and retrieval and, when appropriate, use of computer/videodisc tech- nology for research. Letter grading.

201A. Seminar: Film and Television History and Analysis. (6). Seminar, three hours; laboratory, four hours. Critical survey of various scholarly traditions and methods (historical, political, economic, geographic) that have been used to study film and television production practices as cultural, social, and industrial phenomena, as basis for indi- vidual student research projects. Letter grading.

201B. Seminar: Media Industries and Cultures of Production—Transmedia. (6). Seminar, three hours; film screenings, three hours. Requisite: course 201A. Examination of contemporary production studies re- search and transmedia practices, including innova- tions in marketing, licensing, distribution, industrial or- ganization, creative work, new technologies, and emerg- ing and established transmedia fan culture. Letter grading.


203. Seminar: Film and Other Arts. (6). Seminar, three hours; film screenings, four to six hours. De- signed for graduate students. Studies of interrelation- ships between film and fine arts, or performing arts, or literature, with emphasis on ways these other arts have influenced film. May be repeated twice for credit. S/U or letter grading.

204. Seminar: Visual Analysis. (6). Seminar, three hours; film screenings, two to four hours. Study of vis- ual analysis (or textual analysis), using DVD ac- cessing features, as appropriate, to understand what makes for the visual and sound form. Exploration of role of visual style in narrative fiction filmmaking to attempt to understand some ways it can operate. Letter grading.

205. Seminar: Creating Visual Essays for Film His- tory and Analysis. (6). Seminar, three hours; labora- tory, three hours. Prior technical knowledge not re- quired; technical assistance is available. Creation of individual original research projects in film/theater history and analysis destined for audio-visual me- dium, finalized as high-resolution DVDs. Projects may be extensions of research intended for print publica- tion, dissertation chapters, conference presentations, etc. Equal emphasis on acquiring basic skills needed to create visual essays and on methods of research for this new form of scholarly research. Course focuses on limits and advantages of print versus audio-visual publication. Use of Adobe Production Suite. Letter grading.

206A. Seminar: European Film History. (6). Seminar, three hours; film screenings, four to six hours. De- signed for graduate students. Comparison of different pe- riods of European cinema or movements. Topics may include Italian neorealism, French film of 1930s, French New Wave and crime film, Weimar cinema, and Soviet silent cinema. Film screenings. Letter grading.

207. Seminar: Experimental Film. (6). Seminar, three hours; film screenings, four hours. Introduction to industrial, social, and aesthetic history of American film. Letter grading.

207D. 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 cinema, formal develop- ments, and directors. Readings on film historical and theoretical issues. Letter grading.

207E. Seminar: American Film History. (6). Seminar, three hours; film screenings, four hours. Introduction to industrial, social, and aesthetic history of American film. Letter grading.

208A. Seminar: Film Structure. (6). Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of various film con- versions, both fictional and nonfictional, and of role of structure in motion picture. S/U or letter grading.
208B. Seminar: Classical Film Theory. (6). Seminar, three hours; film screenings, four hours. Study of principal topics and lines of inquiry that characterize the theoretical work of, among others, Bernstein, Eisenstein, Bazin, Krau- cker, etc. Letter grading.

208C. Seminar: Contemporary Film Theory. (6). Seminar, three hours; film screenings, four to six hours. Required course 208B. Designed for graduate students. Study of redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

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. May be repeated once for credit. S/U or letter grading.

209B. Seminar: Fictional Film. (6). Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Fictional film and its relation to contemporary culture. May be repeated once for credit. S/U or letter grading.

210. Seminar: Contemporary Broadcast Media. (4). Seminar, three hours (additional hours as required). Designed for graduate students. Consideration of issues raised by recent developments in television and radio, commercial and public radio, television, and interaction with innovations in satellite, cable, and cartridge systems. S/U or letter grading.


211B. Seminar: Historiography. (4). Seminar, three hours. Limited to Film and Television Ph.D. candidates. Examination of function and methods of writing film and television history as exemplified by key works in this tradition, with attention to central issues of historical thought on media. S/U or letter grading.

212. Cinema and Media Studies Graduate Collo- quium. (2). Lecture, two hours. Exchange with scholars inside and outside department through lectures and presentations, and offers students practice in presenting papers for professional conferences, CV writing seminars, job market/ interview preparation seminars, and discussion of current topics in the trajectory of area of cinema and media studies. May be repeated for maximum of 14 units. (S/U grading.


215. Seminar: Theory and Method. (6). Seminar, three hours. Limited to Film and Television Ph.D. candi- dates. Examination of major modes of theoretical reflection that bear on film and television through study of central texts of such traditions as phenomenol- ogy, auteurism, semiotics, psychoanalysis, sociol- ogy, etc. S/U or letter grading.

217A. Seminar: American Television History. (6). Seminar, three hours; screenings, four hours. Critical survey of U.S. television industry from its inception to present. Examination of programming and changes within industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television His- tory. (6). Seminar, three hours; screenings, three hours. Advanced critical seminar, with focus on specific topic or area (historical period, industry, pro- gramming genre, etc.) in domestic or international television. Letter grading.

218. Seminar: Culture, Media, and Society. (6). Seminar, three hours; screenings/discussion, four hours. Emphasis on discourse of other(s). Theatmaz- ization of identity is explored through works of difference—rather than similarity or identity—with how other cul- tures enter into politics of representation and repre- sentation of politics through metaphors of (1) differ- ence without identity; (2) identity without differ- ence; (3) identity through hybridiza- tion, and (4) otherness without ethnocentrism. Examination of how women, national minorities, and Third World people remEDIATE the place of cinematic apparatus in this process and how academization of others is positioned vis-a-vis main- stream critical discourse. Letter grading.

219. Seminar: Film and Society. (6). Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of ways film affects and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

220. Seminar: Television and Society. (6). Seminar, four hours; screenings/discussion, three hours. De- signed for graduate students. Study of ways televi- sion forms affect and are affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

221. Seminar: Film Authors. (6). Seminar, three hours; film screenings, four to six hours. Designed for grad- uate students. Introduction to world of out- standing creators of films. May be repeated twice for credit. S/U or letter grading.

222. Seminar: Film Genres. (6, 8). Seminar, three hours; film screenings, four to six hours. Designed for grad- uate students. Study of patterns, styles, and themes of such genres as Western, gangster, war, science fic- tion, 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, psych- ological, physiological, and phenomenological ap- proaches to vision as they relate to ways in which viewers experience and conceptualize video, television, and dig- ital 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, including production, distribution, and exhibition of animations, and image capture technology. S/U or letter grading.

225. Seminar: Videogame Theory. (6). Seminar, three hours; laboratory, three hours. Videogame theory, an exploration of a medium relatively new, rather than looking at history, industrial practice, social ef- fects, 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.

CM229. Contemporary Topics in Theater, Film, and Television. (2). (Same as Theater CM229.) Lecture, two hours; screenings, two hours. Limited to junior/ senior and graduate theater/film and television stu- dents. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in each discipline. Examination of distinctive properties and interrelationships among these arts. Individual units include participation of leading mem- bers of theater, film, and television professions. May be repeated once for credit concurrently scheduled with course CM129. S/U or letter grading.


C244. 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, inter- face design, and interactive audiovisual construction. Students conceive, produce, and master individual in- teractive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


C248. Advanced Digital Media Workgroup. (4). Dis- cussion, four hours; laboratory, two hours. Designed for students with previous laboratory course experi- ence, course provides opportunity to create larger- scale digital media works with advanced software tools and techniques in small process-oriented, cre- ative workshop environment. May be repeated once for credit. Concurrently scheduled with course C148. Letter grading.

249. Digital Evolution. (4). Lecture, four hours; dis- cussion, one hour; laboratory, one hour. Comprehen- sive survey to introduce students to emerging digital technologies, resulting new media, and their artistic, economic, and social implications. Topics include digital editing, digital pre- and postproduction, virtual reality. 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 analysis and evaluation in relation to central works of motion picture criticism. May be repeated once for credit. S/U or letter grading.

271. Seminar: Television Criticism. (6). Seminar, four hours; screenings/discussion, three hours. De- signed for graduate students. Analysis of major forms of television production and criticism it has elicited. May be repeated once for credit. S/U or letter grading.

273. Seminar: Contemporary Film and Television Criticism. (6). Seminar, three hours; film and tele- vision screenings, four to six hours. Limited to Film and Television Ph.D. candidates for credit. Concurrently scheduled with course C248. Letter grading.

274. Research Design. (6). Seminar, three hours; film and television screenings, four to six hours. Designed for Ph.D. students. Examination of general principles that govern formulation of major research projects and preparation of prospectus for Ph.D. dissertation. S/U or letter grading.
designing 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 required to 295B. Designed to help producers, as well as screenwriters and directors, to focus on networking opportunities and to develop strategies to bring their feature and television projects to marketplace. Case-study documents (drafts of screenplays, dailies, etc.) from currently 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 marketing assets inherent in pieces of material. S/U or letter grading.

296A. Role of Talent Agencies. (4) Lecture, three hours. Introductory overview of various departments at agencies, including motion picture literary, talent, story, packaging, finance, and executive, with 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 required to 296B. In-depth analysis of different forms of representation offered by agents, managers, business managers, and lawyers and detail of legal rights and responsibilities of each. Exercises require students to represent rights holders in series of potential projects. S/U or letter grading.

297A-297B-297C. New Media Marketing I, II, III. (4-4-4) Seminar, three hours; laboratory, two hours; fieldwork, to be arranged. Requisites: course 297B is required to 297C. Overview of changing world of storytelling through development of new technologies and new media. Development of short teaser/trailer or website using digital resources (digital cameras, editing, and new media effects) to promote student feature or television thesis project. S/U or letter grading.

298A-298B. Special Studies in Film and Television. (2 to 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Seminar study of problems in film and television, organized on topic basis. May be repeated once for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personal employment as teaching assistant, associate, or fellow. Faculty 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, six hours. Limited to graduate film and television students. Conception and design of nonnarrative film imagery. One-minute experiments in relation of meaning to technique, including manipulation of optical, photographic, elements of electronic processes, and display of time and motion. May be repeated once for credit. S/U or letter grading.

401. Film Analysis for Filmmakers. (4) Lecture, five hours. Limited to graduate film and television students. Drawing heavily from array of historical examples, examination of many expressive strategies useable in creation of moving image art forms. Understanding, repetition, presentation, a fresh approach to viewing great films of past that empowers filmmakers to use sound and images to tell original stories in present. Focus on strategic decision making in taking the place of narrative, design, cinematography, editing, sound, and performance to enable filmmakers to discover their own personal style for telling stories on screen. Letter grading.

402A-402B. Advanced Narrative Directing Workshops. (4 or 8-8). Limited to nine graduate film and television students. Production of 10- to 15-minute fiction feature 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-year M.F.A. production, Laboratory, 12 hours; fieldwork, to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio.


403A-403B-403C. Advanced Documentary Workshops. (4 to 6 each) Lecture/discussion/laboratory, 16 to 24 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to graduate film and television students. Production of advanced individual documentary film or video projects. Students conceptualize, research, write, shoot (on location), and edit projects to completion. May be repeated once for credit. S.U or letter grading.

404A-404B. Advanced Abstract/Experimental Media Workshop. (4) Lecture, discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C. Limited to 10 students per section. Production of 20-minute abstract or experimental film 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 on projects started in courses 404A and 404B. Letter grading.

405. Television Production Workshop. (8) Laboratory, eight hours; other, to be arranged. Limited to graduate film and television students. Basics of television production and direction, focusing on studio multiple camera with minimal use of remote camera. Use of various formats of video production, including scripted and nonscripted projects, culminating in narrative three-camera project. S/U or letter grading.

406. Experimental Video Workshop. (4) Laboratory, six hours; other, to be arranged. Limited to graduate film and television students. Exploration of new video technologies in television, including concepts of video art, new television, digital video, high-definition video, and tape postproduction. S/U or letter grading.


408A-408B. Video Editing. (4-4). Discussion, four hours; laboratory, to be arranged. Limited to graduate film and television students. Individual instruction in electronic editing. S/U or letter grading. 408A. Online Editing; 408B. Offline Editing.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours; laboratory, to be arranged; laboratory preparation, two to four hours. Limited to M.F.A. production program students. Team-taught with another. Requisite: previous experience directing actor/camera techniques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on problems placed when directing actors for film. S/U or letter grading.

410A. Symposium. (2) Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Exploration of principal concepts of film and television production with focus on preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Exploration of strategies for learning production within academic environment. May be repeated for credit. Letter grading.

410B. Cinematography. (2) Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410C. Postproduction. (2) Seminar, three hours. Limited to and required of first-year M.F.A. production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410D. Postproduction Sound. (2) Seminar, three hours. Requisites: courses 405, 409, 410A through 410D. Limited to and required of first-year M.F.A. production program students. Design workshop which gives hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410E. Production. (12) Lecture, three hours; fieldwork, 24 to 40 hours. Requisites: courses 401, 409, 410A through 410D. Limited to and required of first-year M.F.A. production/directing students. Designed to give hands-on experience in film production. Students prepare and direct six-minute films and serve in preassigned crew positions for each other. Letter grading.

411. Survey of Multimedia Production. (4) Lecture, three hours; laboratory, three hours. Introduction to various methods of digital production, with focus on photo manipulation, desktop nonlinear postproduction, and distribution on World Wide Web. Letter grading.

416. 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. Lectures, supervised exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premeditated scene recorded on film or through electronic system. May be repeated twice for credit. 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 essential to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

419. Advanced Cinematography. (4) Lecture, two hours; laboratory, one hour. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. S/U or letter grading.
423A. Direction of Actors for Film and Television. (4). Lecture, studio, laboratory. Preparation: four hours. Prerequisite: 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. Screenwriting Fundamentals. (2). Lecture, one hour. Corequisite for graduate students enrolled in course 410A. Examination of screenwriting fundamentals: structure, character and scene development, conflict, locale, theme, history of drama. Review of authors such as Aristotle. Concurrently scheduled with course C132. S/U or letter grading.


434. Advanced Screenwriting. (8). Discussion, three hours. Requisite: course 130A. Advanced problems in writing of original film and television screenplays. May be repeated twice for credit. Letter grading.

435. Advanced Writing for Short Film and Television Screenplays. (4). Discussion, three hours. Requisite: course 410C. Limited to graduate film and television students. Advanced problems in field of documentary and special feature programs, with emphasis on research and preproduction. May be repeated for maximum of 16 units. S/U or letter grading.


452A. Film and Television Sound Recording. (4). Lecture, three hours; laboratory, four hours. Preparation: laboratory. Principles and practices of film and television sound recording, including supervised exercises. S/U or letter grading.

452B. Music Recording Workshop. (4). Lecture, four hours; studio, eight hours. Supervised exercises in studio music recording techniques, with emphasis on special requirements for motion pictures and television. S/U or letter grading.

C452C. Digital Audio Postproduction. (4). Lecture, three hours; laboratory, four hours. Limited to departmental majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and procedures available to today’s filmmakers. Coverage of many technical, equipment, and software step-by-step, with emphasis on creative process. Concurrently scheduled with course C152C. Letter grading.

453. Postproduction Sound Design. (2 to 4). Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete postproduction sound design. Emphasis on all areas of postproduction sound design from editing to final mixing. How to effectively use sound design to enhance storytelling capability of films, evaluate music choices, and music sound design to enhance story points, discover design opportunities, and select right sound effects. How to edit dialogue, prepare for Automatic Dialogue Replacement and Foreign language final sound mix. Screening of numerous film clips to provide examples of postsound choices that demonstrate effective use of sound design. S/U or letter grading.

454A. Advanced Film Editing. (4). Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of project proposal to edit with another director. For film and television students in postproduction phase with advanced knowledge of organization and operation of postproduction process. Letter grading.

454B. Advanced Film Editing. (4). Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of project proposal to edit with another director. For film and television students in postproduction phase with advanced knowledge of organization and operation of postproduction process. Students may also propose to edit significant scenes with instructor. Concurrently scheduled with course C154B. Letter grading.

454C. Advanced Film Editing: Postproduction Pathways. (2 to 4). Lecture, three hours; laboratory, two hours. Preparation: departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of postproduction. Students plan, schedule, and budget their postproduction pathway in preproduction. May be repeated once for credit. Letter grading.

C455A-C455B. Music in Film: Another Way to Tell Stories. (4-4). Lecture, three hours. Course C455A is requisite to C455B. Exploration of concepts and ideas that drive creation and use of music in film. Through lecture/discussion and practical assignments, examination of deep collaboration between filmmakers and musicians, notably of noteworthy examples and following of collaboration of filmmakers with composers, with weekly sessions dedicated to templing, creation and development of new scores, studio, editing, and production meetings. Preparation of film ready for templing by end of first term and ready for scoring at beginning of second term. Concurrently scheduled with courses C169A-C169B. Letter grading.

459A-459B. Directing for Film and Television. (4-4). Lecture, three hours. Limited to graduate film and television students. Analysis and exploration, with specific scenes, of differences and many similarities in directorial approach to same literary material in theater, film, and television. S/U or letter grading.


C466A-C466B. Advanced Professional Video Workshops. (8). Lecture, three hours; laboratory, to be arranged. Preparation: completion of courses 410A, 410B, 410C, 423A. Limited to graduate film and television students. Hands-on problems working with various interrelated disciplines in professional production experience, including interaction with students of design and acting from Department of Theater. Letter grading.

C468. Creative Location Film Production. (8). Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer’s pre-production work, including: planning, production, direction, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C168. Letter grading.

C470A. Introduction to Digital Effects. (4). Lecture, three hours; laboratory, to be arranged. Introductory study of digital effects production, with specific focus on motion graphics, compositing, effects processing, and title sequences. Concurrently scheduled with course C170A. Letter grading.

472. Commercials. (4). Lecture, four hours. Limited to M.F.A. 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.

475. Film I. (8). Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of film production, including preproduction, production, and postproduction of group short film. S/U or letter grading.

476. Video I. (8). Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of video production, including completion of one or more projects. S/U or letter grading.

478. Video II. (8). Discussion, three hours; studio, to be arranged. Requisites: courses 185, and 405 or 475. Designed for graduate students. Group experience in video production with each member rotating on crew work in production of individual or collective projects. S/U or letter grading.

480. Timing for Animation. (4). Lecture, three hours; laboratory, three hours. Preparation: completion of one or more animation timing through lectures and assignments. Letter grading.

482A-482B. Advanced Animation Workshops. (4 or 8 each). Lecture, three hours; studio, to be arranged. Requisites: courses 181A, 181B, 181C. Advanced organization and integration of various creative arts used in animation, resulting in production of complete animated film. May be repeated for maximum of 16 units. S/U or letter grading.

483A-483B-483C. Advanced Computer Animation. (4 to 8 each). Lecture, six hours; laboratory, four hours. Requisites: courses 181A, 181B, 181C. Advanced computer animation, with emphasis on integration of various creative arts and animation, resulting in production of complete animated film. May be repeated for maximum of 16 units. S/U or letter grading.

484A-484B. Visual Thinking and Organization for Animation. (4-4). Lecture, six hours; laboratory, four hours. Course 484A is requisite to 484B. Systematic approach to analyzing and communicating two-dimensional and three-dimensional form and applying traditional compositional approaches to animation. May be repeated for maximum of 16 units. Letter grading.

485. Legal Issues in Animation. (4). Lecture, three hours; laboratory, three hours. Examination of legal issues in animation, including agreements, contracts, and representation in animation. Should be taken term before student plans to advance to candidacy. S/U or letter grading.

486. Directed Individual Study: Preparation to Advance to Candidacy for M.F.A. (4 to 4). Tutorial, four to eight hours. Limited to M.F.A. 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.

### Foreign Literature in Translation

**Scope and Objectives**

The following courses offered in the departments of language and literature do not require reading knowledge of any foreign language.

### Foreign Literature in Translation

#### Course List

- **Afrikan (Germanic Languages)**
  40. From Oppressed to Oppressor and Beyond: Literature in Afrikan from Preapartheid to Postapartheid Era in English Translation
- **Ancient Near East (Near Eastern Languages)**
  150A-150B. Survey of Ancient Near Eastern Literatures in English
- **Arabic (Near Eastern Languages)**
  150. Classical Arabic Literature in English
  151. Modern Arabic Literature in English
- **Armenian (Near Eastern Languages)**
  150A. Survey of Armenian Literature in English
  152. Modern Armenian Drama as Vehicle for Social Critique
- **Asian (Asian Languages)**
  151. Buddhist Literature in Translation
- **Central and East European Studies (Slavic Languages)**
  126. Coldwar Central European Culture
- **Chinese (Asian Languages)**
  C150A. Lyrical Traditions
  150B. Chinese Literature in Translation: Traditional Narrative and Fiction
  151. Chinese Literature in Translation: Modern Literature
  152. Topics in Contemporary Chinese Literature and Culture
  M153. Chinese Immigrant Literature and Film
- **Classics**
  40W. Reading Greek Literature: Writing-Intensive
  41W. Reading Roman Literature: Writing-Intensive
  60. Fantastic Journey: Antiquity and Beyond
  137. Ancient Lives: Art of Biography
  140. Topics in History of Greek Literature
  141. Topics in History of Latin Literature
  142. Ancient Epic
  143A. Ancient Tragedy
  143B. Ancient Comedy
  144. Topical Studies in Ancient Culture
  M145A. Ancient Greek and Roman Philosophy
  M145B. Later Ancient Greek Philosophy
  M146A. Plato—Earlier Dialogues
  M146B. Plato—Later Dialogues
  M147. Aristotle
  150A. Female in Greek Literature and Culture
  150B. Female in Roman Literature and Culture
  162. Classical Myth in Literature
  163. Ovid and Consequences

- **Comparative Literature**
  All undergraduate courses

- **Czech (Slavic Languages)**
  155. Survey of Czech Literature from Middle Ages to Present

- **Dutch (Germanic Languages)**
  10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheesie, and Wooden Shoes
  113. Modern Dutch and Flemish Literature in Translation

- **English**
  111A. Hebrew Bible in Translation
  111B. Christian Biblical Texts in Translation
  111C. Topics in Biblical Literature
  112A. Oral Tradition
  112B. Celtic Mythology
  112C. Survey of Medieval Celtic Literature
  112D. Celtic Folklore

- **French (French and Francophone Studies)**
  112. Medieval Foundations of European Civilization
  150. Classical Myth in Literature
  151. Modern Arabic Literature in English
  152. Modern Armenian Drama as Vehicle for Social Critique
  153. Art, Politics, and Nationalism in Modern Arme- nian Literature
  154. Afrikan (Germanic Languages)
  40. From Oppressed to Oppressor and Beyond: Literary in Afrikan from Preapartheid to Postapartheid Era in English Translation
  155. Survey of Czech Literature from Middle Ages to Present
  156. Classical African Literature in English
  157. Hollywood and Germany
  158. Knights and Ladies, Sex and Power at Medieval Court
  159. Holocaust in Film and Literature

- **German (Germanic Languages)**
  50A-50B. Great Works of German Literature in Translation
  55. City as Text: German Exile Culture in Los Angeles
  56. Figures Who Changed World
  57. Hollywood and Germany
  58. Knights and Ladies, Sex and Power at Medieval Court
  59. Holocaust in Film and Literature
  60W. War
  61A-61D. Modern Metropolis
  62W. Man and Machine
  M70. Origin of Language
  100. German History and Culture before 1500
  101. German History and Culture, 1500 to 1914
  102. War, Politics, Art
  103. 104. German Film in Cultural Context
M105. Tristan, Isolde, and History of Heterosexuality
106. Bargaining with Devil
M107. Love and Sex in German Literary Tradition
108. Nietzsche and Critique of Western Culture
109. Jewish Question and German Thought
110. Special Topics in Modern Literature and Culture
111. Thomas Mann, Hesse, Böll, and Grass: German Nobel Prize Winners in English
112. Feminist Issues in German Literature and Culture
113. German Folklore
114. Fairy Tales and Fantastic
117. German Exile Culture in Los Angeles

Hungarian (Slavic Languages)

121. Survey of Hungarian Literature in Translation

Irish (Slavic Languages)

150A-150B. Survey of Irish Literature in English

Italian

42A-42B-42C. Italy through Ages in English
46. Italian Cinema and Culture in English
50A-50B. Masterpieces of Italian Literature in English
50A-50T. Italian Cultural Experience in English
110. Dante in English
140. Italian Novella from Boccaccio to Basile in Translation
150. Modern Fiction in Translation
M158. Women, Gender, and Sexuality in Italian Culture
230A-230B. Folk Tradition in Italian Literature
260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature

Japanese (Asian Languages)

C150. Topics in Japanese Literature and Philosophy
151. Japanese Literature in Translation: Modern
154. Postwar Japanese Culture through Literature
M156. Literature and Technology

Jewish Studies (Near Eastern Languages)

M150A-150B. Hebrew Literature in English
M151A-151B. Modern Jewish Literature in English
175. Modern Israeli Literature Made into Films

Korean (Asian Languages)

150. Korean Literature in Translation: Classical
C151. Korean Literature in Translation: Modern

Polish (Slavic Languages)

152A-152B-152C. Survey of Polish Literature

Portuguese (Spanish and Portuguese)

40A-40B. Portuguese, Brazilian, and African Literature in Translation
46. Brazil and Portuguese-Speaking World
141A. Literature and Film in Portuguese
142C. Travel Narratives, Testimony, Autobiography

Romanian (Slavic Languages)

152. Survey of Romanian Literature

Russian (Slavic Languages)

25, 25W. Great Russian Novel
30. Russian Literature and World Cinema
M118. History of Russia, Origins to Rise of Muscovy
119. Golden Age and Great Realists
120. Literature and Revolution
121. Russian Pop Culture
124C-124T. Studies in Russian Literature
125. Russian Novel in its European Setting
126. Survey of Russian Drama
M127. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore

Scandinavian

40, 40W. Heroic Journey in Northern Myth, Legend, and Epic
50, 50W. Introduction to Scandinavian Literatures and Cultures
C131. Introduction to Viking Age
C133A. Saga
134. Scandinavian Mythology
C137. Old Norse Literature and Society
138. Vikings
C141A. Theory of Scandinavian Novel
141B. Nordic Poetry
141C. Short Story in Scandinavia
142A. Introduction to Nordic Theater and Drama
143A. Scandinavian Detective Fiction
143C. Scandinavian Crime Literature
CM144A. Voices of Women in Nordic Literature
C145A. Henrik Ibsen
C145B. Knut Hamsun
C146A. August Strindberg
147A. Hans Christian Andersen
C147B. Søren Kierkegaard
148A. Halldór Laxness
152. Backgrounds of Scandinavian Literature
154. Romanticism
155. Modern Breakthrough
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
166C. Carl Dreyer
C171. Introduction to Scandinavian Folklore
173A. Popular Culture in Scandinavia
C174A. Minority Cultures in Scandinavia
174B. Queer Scandinavia
C175. Introduction to Sami Language and Culture
C180. Literature and Scandinavian Society
C185. Seminar: Scandinavian Literature

Serbian/Croatian (Slavic Languages)

154. South Slavic Literature

Slavic (Slavic Languages)

90. Introduction to Slavic Civilization
125. Interwar Central European Prose

South Asian (Asian Languages)

150. Classical Indian Literature in Translation

Southeast Asian (Asian Languages)

130. Topics in Southeast Asian Literature

Spanish (Spanish and Portuguese)

60A-60B-60C. Hispanic Literatures in Translation

Ukrainian (Slavic Languages)

152. Ukrainian Literature

Yiddish (Germanic Languages)

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

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FRENCH AND FRANCOPHONE STUDIES

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Lecturer
Laurence M. Denié-Higney, Ph.D.

Scope and Objectives

The Department of French and Francophone Studies is a major West Coast center for the study of French. In recent decades French critical thought has maintained a dominant position in the Western world. The department seeks to give its students not only a background in the various fields of French and Francophone studies, but also opportunity to relate literary, linguistic, and cultural study to examination of the critical intellectual questions of our time.

The undergraduate lower division program is designed to provide practical competence in French after one year and thorough basic knowledge of the language after two years.

The undergraduate upper division program is chiefly devoted to perfecting linguistic skills and to the study of French and Francophone culture and literature. Courses in linguistics and business French are also offered. Students graduating with a Bachelor of Arts in French should be fully fluent in French and possess a thorough background in French and Franco-
The graduate program offers both M.A. and Ph.D. degrees and comprises training in the various fields of French and Francophone culture, literature, and thought, as well as in literary criticism, analysis, and theory. A number of courses in linguistics and stylistics are also offered.

**Undergraduate Study**

If students have taken French elsewhere, they must take a placement test administered by the department. Depending on the results of the placement test or with recommendation of an instructor, they may be permitted to enroll in a course of study at a more advanced level.

Requisites to all upper division courses taken in partial fulfillment of the French majors are French 6, 12, or equivalent. Courses 105 through 109 are not sequential and may be taken in any order, provided the requisites for each course are fulfilled.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

The French major is a designated capstone major. Students are required to complete a capstone seminar that is thematically devised to reflect current trends in the discipline. Through the capstone experience, students work closely with a faculty member on a focused topic of research. They engage in presentations and weekly discussions and write a research paper demonstrating language proficiency, critical and creative thinking, analytical skills, and a cultural perspective.

**French B.A.**

**Capstone Major**

**Preparation for the Major**

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

**Transfer Students**

Transfer applicants to the French major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French, one French literature course, and one introduction to linguistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

Two plans are offered by the department:

**Plan I: French/Francophone Studies in Literature and Culture**

Required: French 100, 101, two courses from 114A, 114B, and 114C, one senior capstone seminar (191B), and six 4-unit courses in French and Francophone literature and/or culture selected from upper division offerings in the department in language, civilization, literature, or the arts. One upper division elective course from outside the department may be substituted in the major program with consent of the undergraduate adviser. Each course must be taken for a letter grade.

**Plan II: Interdisciplinary French/ Francophone Studies**

Required: French 100, 101, one course from 114A, 114B, or 114C, one senior capstone seminar (191B), four upper division elective courses in French and Francophone studies, and three upper division elective courses in fields relevant to French and Francophone studies to be selected from outside the department in consultation with the undergraduate adviser. Each course must be taken for a letter grade.

Plan II, with emphasis on French and Francophone culture, is a core program in French allowing for individual selection of relevant courses in related fields such as humanities, social sciences, gender studies, and linguistics.

It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper division courses in the French and Francophone Studies Department with an adviser. All prospective French majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper division work in the major.

All majors must complete a minimum of nine courses of appropriate upper division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C average in upper division major courses in order to remain in the French major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.

It is recommended that students intending to major in French consult the undergraduate adviser before enrolling in upper division courses.

**French and Linguistics B.A.**

**Preparation for the Major**

Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent, Linguistics 20, completion of the sixth term of one other foreign language or the third term in each of two other foreign languages. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

**Transfer Students**

Transfer applicants to the French and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French, one French literature course, and one introduction to linguistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

Required: French 100, 101, 104, one course from 114A, 114B, or 114C, two courses from 105, 107, 108, 109, 110, one upper division French elective course, and Linguistics 103, 110, 120A, 120B. Each course must be taken for a letter grade.

It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level.

If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French and Linguistics majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper division work in the major.

All majors must complete a minimum of nine courses of appropriate upper division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C average in upper division major courses in order to remain in the French and Linguistics major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.
It is recommended that students intending to major in French and Linguistics consult the undergraduate adviser before enrolling in upper division courses.

Honors Program

The department encourages those students in the French majors with initiative and independence of mind who desire an enriched individualized course of study to apply for the honors program. The honors program is designed for French majors who have fulfilled their lower division requirements and have a 3.5 departmental grade-point average. Students whose GPA falls between 3.3 and 3.5 should submit a composition from an advanced language or literature course to the honors committee. If the work submitted meets with approval, students are admitted to the program.

To graduate with departmental honors, students must complete a minimum of two honors projects in the context of nonhonors upper division courses (French 115 and above) taken for honors credit. They must do an honors project (a research paper of 12 to 15 pages) in addition to the regular course requirements. An honors contract must be signed before the end of the third week of the term. After completing the project, students fill out a completion form.

On the basis of their coursework and field of interest, students are expected to formulate a research topic they wish to pursue in greater depth. They take course 198 where they receive regular personal supervision from a faculty member in the research, methodology, and writing of their approximately 30- to 35-page honors thesis (honors projects and the honors thesis are not to be confused).

Students may begin the honors program toward the end of their junior year or during their senior year. Students are allowed to enroll in graduate courses with the consent of the instructor but cannot use those courses to replace an honors project. Departmental honors are recorded on the final transcript if students fulfill all requirements for the program. They may submit their final honors thesis for the departmental prize.

French Minor

To enter the French minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Courses (6 units):
French 6 or equivalent and one course from course 12, 14, 41, or 60.

Required Upper Division Courses (20 units):
French 100 or 101, and four additional departmental courses in language, culture, or literature to be selected in consultation with an undergraduate counselor.

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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gradprogramintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of French and Francophone Studies offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in French and Francophone Studies.

French

Lower Division Courses


1G. Elementary French for Graduate Students. (3). Lecture, three hours. Preparation for GSFLT or other language examinations. Passing grade does not imply satisfaction of language requirements. S/U grading.

2. Elementary French. (4). Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.


8. 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 laboratory required. Offered in summer only. P/NP or letter grading.

9. Intensive Second-Year French. (8). Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 3. Intensive course equivalent to first two terms of intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.

10A-10D. French Conversation. (2 each). Discussion; three hours; Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.


14. 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. P/NP or letter grading.

14W. Introduction to French Culture and Civilization in English. (5). Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 56. Not open for credit to students with credit for course 14. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. Satisfies Writing II requirement. Letter grading.


41. French Cinema and Culture. (5). Lecture, three hours; discussion, one hour. Study of films of cultural and literary significance. P/NP or letter grading.

60. French and Francophone Novel. (5). Lecture, three hours; discussion, one hour. Study of literary masterpieces produced by writers from France and Francophone world (Canada, Africa, Caribbean, etc.) from 17th to early 21st century. P/NP or letter grading.

Upper Division Courses


104. Theory and Correction of Diction. (4). Lecture, three hours. Enforced requisite: course 6. Study of individual sounds (vowels, consonants, and semi-vowels), including rhythm, intonation, and phrasing, and of learning sound—spelling correspondences to help sight read accurately. Thorough study of symbols of International Phonetic Alphabet (IPA) to give students tools to work on pronunciation systematically. Standard French serves as model, with examination of pronunciation changes and various dialects that are spoken in Francophone world to improve listening comprehension and pronunciation. P/NP or letter grading.


109. Studies in Medieval French Culture and Literature. (4). Lecture, three hours. 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.


112. Medieval Foundations of European Civilization. (4). Lecture, three hours; discussion/film screenings, two hours. Medieval texts, culture, social structures, and political and theological bases of European modernity. P/NP or letter grading.


114B. 17th and 18th Centuries. (5). Lecture, three hours. Requisite: course 12. Study of selections from major works of classicism and Enlightenment, including those by Racine, Pascal, La Fayette, La Fontaine, La Rochefoucauld, Voltaire, and Rousseau. P/NP or letter grading.


115. Studies in Medieval French Culture and Literature. (4). Lecture, three hours. 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.


118. Studies in 18th-Century French Culture and Literature. (4). Lecture, three hours. Taught in French. Study of 18th-century French culture and literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.


121. Studies in Francophone Cultures and Literatures. (4). Lecture, three hours. Enforced prerequisite: course 5. Taught in French. Study of Francophone cultures and literatures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, Canada, and sub-Saharan Africa, immigrant cultures, and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.


127. French and Francophone Intellectual History. (4). Lecture, three hours. Requisite: course 12. Survey of the major intellectual and cultural movements of the 18th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). P/NP or letter grading.


130. Contemporary French and Francophone Cultures. (4). Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of contemporary French and Francophone culture and literature, including satire, novel, theater, and poetry. May be repeated for credit with topic change. Letter grading.

131. French and Francophone Film. (4). Lecture, three hours. Taught in French. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. P/NP or letter grading.


136. French and Francophone Autobiography. (4). Lecture, three hours. Taught in French. Study of autobiography in French, including personal writing, work, and cultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

137. French and Francophone Intellectual History. (4). Lecture, three hours. Requisite: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

138. Contemporary French Theory. (4). Lecture, three hours. Requisite: course 12. Taught in French. Study of French and Francophone theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major concepts in contemporary French thought, with attention to its influence on and contribution to literary and nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.


143. Francophone Cultures in English. (4). Lecture, three hours. Study of historical, anthropological, legal, literary, or filmic texts to provide students with broad view of some major issues in field of colonial and postcolonial Francophone studies. P/NP or letter grading.

145. Directed Research or Senior Project in French. (4). Tutorial, three hours. Limited to seniors. Under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

150. Directed Research or Senior Project in French. (2-4). 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. Individual contract required. P/NP or letter grading.

151. Directed Research or Senior Project in French. (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. Individual contract required. P/NP or letter grading.

152. Directed Research or Senior Project in French. (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. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Contemporary French Theories. (4). Lecture, three hours. Introductory study of French structuralist and poststructuralist thought in literature, linguistics, psychoanalysis, anthropology, philosophy, and feminism, that may include texts by Althusser, Barthes,

201. Techniques of Literary Analysis. (4). Lecture, three hours. Practice in close analysis of literary texts, including explanation de texte. 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 postmodernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Roy Chow, Virilio. S/U or letter grading.

203. Contemporary Francophone Literature. (4). Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, anticolonialism, nationalism, resistance and dissidence, and postcolonial theory; S/U or letter grading.


206A-206B. Studies in Generative Anthropology. (4-5). Lecture, three hours. Discussion of principles of generative anthropology and their application to given set of literary, philosophical, and scientific texts and/or other cultural phenomena. S/U or letter grading.


209. Studies in Literary Genre. (4). Seminar, three hours. Advanced research and study of literary genres such as poetry, drama, fiction, autobiography, or performance and of theory of these genres. S/U or letter grading.

M210. Paleography 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 manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.


220. 20th Century. (4). Lecture, three hours. Overview, both historical and analytical, of 20th-century French literature set in context of several key critical topics that interrogate canonical interpretation. Letter grading.

M270. Seminar: Literary Theory. (5). (Same as Asian M251, Comparative Literature M294, English M270, German M270, Italian M270, Scandinavian M270, and Spanish M294.) Seminar, three hours. Advanced interdisciplinary seminar to explore philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. S/U or 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.


596. Directed Individual Studies or Research. (2 to 5). Tutorial, to be arranged. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. 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 M.A. Thesis. (2 to 6). Tutorial, to be arranged. Maximum of 4 units may be applied toward M.A. degree requirements. S/U grading.


FRESHMAN GENERAL EDUCATION CLUSTERS

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http://www.ucla.edu/clusters.htm

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Faculty Committee

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Jeffrey L. Decker, Ph.D. (English)

Anthony R. Frisica, Ph.D (Integrative Biology and Physiology)

Daphna Gans, Ph.D. (Community Health Sciences)

M. Gregory Kendrick, Ph.D. (History)

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Joseph F. Nagy, Ph.D. (English)

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Abigail C. Saguay, Ph.D. (Gender Studies, Sociology)

Brenda Stevenson, Ph.D. (History)

Keith D. Stolzenbach, Ph.D. (Civil and Environmental Engineering, Institute of the Environment and Sustainability)

Scope and Objectives

Available to entering freshmen only, cluster courses are an option for satisfying both general education and Writing II requirements. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or interracial dynamics. The courses are taught by some of UCLA’s most distinguished faculty members and seasoned graduate students. During Fall and Winter Quarters, students attend lecture courses and small discussion sections and/or laboratories. In Spring Quarter, the same students enroll in one of a number of satellite seminars dealing with topics related to the cluster theme.

Freshman clusters are designed to strengthen the writing, quantitative reasoning, critical thinking, and information literacy skills that students need to excel at UCLA. At the conclusion of the entire yearlong cluster, students complete 40 percent of their general education course requirements and fulfill the Writing II requirement. Cluster students are eligible for the Honors Collegium credit. For the current cluster course offerings and general education credit, refer to http://www.uclal.edu/clusters.htm.

General Education Clusters

Lower Division Courses

M1A-M1B-M1CW. Environment and Sustainability. (6-6-6). (Same as Environment 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. Human effects on Earth's ecosystem and social and technological solutions to environmental pollution and overpopulation. History and ecology in lectures; laboratory exercises included in discussions. M1CW. Special Topics. Seminar, three hours. Enforced prerequisite to course M1B. Examination of specialized environmental topics such as air and water, global warming, and feeding Earth's population. Satisfies Writing II requirement. 20A-20B-20CW. Intercultural Dynamics in American Culture and Society. (6-6-6). Course 20A is enforced requisite to 20B, which is enforced requisite to 20CW. Limited to first-year freshmen. Letter grading. 20A-20B. Lecture, three hours; discussion, two hours. Examination of nature and meaning of race in American society through study of history, literature, and law. Consideration, among other topics, of construction of race as social and cultural category among two or
more groups and exploration of ways in which race has shaped understanding of American citizenship. 


21A-21B-21CW. Freshman General Education Clusters. (6-6-6). Course 21A is enforced requisite to 21B, which is enforced requisite to 21CW. Limited to first-year freshmen. Letter grading. 21A-21B. Lecture, three hours; discussion, two hours. Enforced requisite: 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 Wolfenstein, and de Beauvoir in historical context and from perspectives of academic specialties for which their work is fundamental. 21CW. Special Topics. Seminar, three hours. Enforced requisite: course 21B. Introduction of cross-section of classical and modern social theories and debates that shape them. Satisfies Writing II requirement.

22A-22B-22CW. Toward World Economy: Perils and Promise of Globalization. (5-5-5). Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Limited to first-year freshmen. Letter grading. 22A-22B. Lecture, three hours; discussion, two hours. Exploration of causes and mechanisms of globalization as well as its consequences. Critical examination of globalization theories, international institutions, trade, finance, governance, and overall impact of globalization on human society. 22CW. Special Topics. Seminar, three hours. Enforced requisite: course 22B, and English Composition 3 or 3H or English as a Second Language 36. Topics may include global governance, development, and health. Satisfies Writing II requirement.

23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (6-5-5). Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Limited to first-year freshmen. Letter grading. 23A-23B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts, aesthetic theories and practices, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisite: courses 23B, and English Composition 3 or 3H or English as a Second Language 36. Topics include origins and ideas of performance, art and performance, and music as cultural expression. Satisfies Writing II requirement.

M24A-M24B-M24CW. Work, Labor, and Social Justice in U.S. Society as Laboring Worldplace. Studies M1A-M1B-M1CW). Course M24A is enforced requisite to M24B, which is enforced requisite to M24CW. Limited to first-year freshmen. Letter grading. M24A-M24B. Lecture, three hours; discussion, two hours. Exploration of 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. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

25A-25B-25CW. Politics, Society, and Urban Culture in East Asia. (6-6-6). Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Limited to first-year freshmen. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Comprehensive exploration of historical evolution of popular Eastern Asian urban culture and interrelationship of East Asian politics, social, economic, and urban cultures. 25CW. Special Topics. Seminar, three hours. Enforced requisite: course 25B. In-depth examination of issues in historical and contemporary East Asian popular culture. Satisfies Writing II requirement.

26A-26B-26CW. Poverty and Health in Latin America. (6-6-6). Course 26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion, two hours. Introduction to social determinants of health, with focus on cultural, historical, socioeconomic, public health, medical, political, and artistic context of poverty in modern Latin America and on different historical and regional responses to health inequities. Exploration of major trends and debates that have shaped and continue to define issues related to poverty and health in region. 26B. Lecture, three hours; discussion, two hours. Enforced requisite: course 26A. Responses to health inequities and possible solutions to promote improved health outcomes. Examination of health in illustrated through examples of current programs and policies. Major areas for addressing health inequity include government, community action, social justice and human rights, health sector, and public and private health. Introduction to tools to promote health, such as service delivery, health workforce, information systems, access to medicines, health systems financing, and health systems governance. 26CW. Special Topics. Seminar, three hours. Enforced requisite: course 26B. Students meet weekly in small group seminars based on topics related to course theme to allow them to study, discuss, and analyze solutions to create more equitable healthcare in Latin America. Focus on one particular area of Latin America or one local Latin American country. Select faculty studies to eventually be offered and serve as preparation for summer field study component. Satisfies Writing II requirement.

30A-30B-30CW. Never-Ending Stories: Multidisciplinary Perspectives on Narrative. Course 30A is enforced requisite to 30B, which is enforced requisite to 30CW. Limited to first-year freshmen. Letter grading. 30A-30B. Lecture, three hours; discussion, two hours. Exploration in depth of particular mythological traditions, aspects of storytelling, role of myth in culture, society, and/or art, and contributions of various disciplines to study of myth. 30CW. Special Topics. Seminar, three hours. Enforced requisite: course 30B. Topics may include myth and modern art (including literature, music, and film), myth and ritual, oral tradition and orality, myth and political ideology, myth and science, Greek and Roman themes. Satisfies Writing II requirement.

60A-60B-60CW. America in Sixties: Politics, Society, and Culture, 1954 to 1974. (6-6-6). Course 60A is enforced requisite to 60B, which is enforced requisite to 60CW. Limited to first-year freshmen. Letter grading. 60A-60B. Lecture, three hours; discussion, two hours. Interdisciplinary exploration of U.S. society from Brown versus Board of Education (1954) to resignation of Nixon. Topics include civil rights, Great Society, anti-Vietnam war movement, political and artistic countercultures, and changes in technology, law, and medicine. 60CW. Special Topics. Seminar, three hours. Enforced requisite: course 60B. In-depth examination of political and cultural issues affecting U.S. society from 1954 to 1974. Satisfies Writing II requirement.

66A-66B-66CW. Los Angeles: The Cluster. (6-6-6). Course 66A is enforced requisite to 66B, which is enforced requisite to 66CW. Limited to first-year freshmen. Letter grading. 66A-66B. Lecture, three hours; discussion, two hours. In-depth look at city in which UCLA is located. Drawing on concept of Los Angeles as laboratory, students engage in systematic way with urban area that is to be their home for next several years. As they do, they come to understand our brains give us power to see and hear, learn and remember, and interpret other people, spaces, places, and cultures of Los Angeles and its metropolitan region in both present and past, as well as Los Angeles’ place in urban world. 66CW. Special Topics. Seminar, three hours. Enforced requisite: course 66B. Topics may include musical cultures of Los Angeles, Los Angeles as global city, Los An- geles in fiction, Southern California and environment, planning for 21st century Los Angeles, housing, and homeless in Los Angeles. Satisfies Writing II requirement.

70A-70D. Evolution of Cosmos and Life. (Each). Course 70A is enforced requisite to 70B, which is enforced requisite to 70CW. Limited to first-year freshmen. Letter grading. 70A-70B. Lecture, three hours; discussion, two hours. Use of concept of evolution, as it applies to biological organisms, Earth, solar system, and universe itself, to introduce stu- dents to both life and physical sciences. Examination of evolution of universe, evolution of Earth, life on Earth in course 70A; focus on evolution of life in course 70B. 70CW. Special Topics in Life Sciences. Seminar, three hours. Enforced requisite: course 70B. Not open for credit to students with credit for course 70CW. Examination in depth of various issues of evolution in cosmos from life sciences perspective. Satisfies Writing II requirement. 70D. Special Topics in Physical Sciences. Seminar, three hours. Enforced requisite: course 70B. Not open for credit to students with credit for course 70CW. Examination in depth of various issues of evolution in cosmos from physical sciences perspectives. Satisfies Writing II requirement.

M71A-M71B-M71CW. Biotechnology and Society. (6-6-6) (Formerly numbered 71A-71B-71CW) (Same as Society and Genetics M71A-M71B-M71CW) Course 71A is enforced requisite to 71B, which is enforced requisite to 71CW. Limited to first-year freshmen. Letter grading. 71A-71B. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of ethical, social, and political implications as well as biological underpinnings. 71CW. Special Topics. Seminar, three hours. Enforced requisite: course 71B. Topics may include in-depth analysis of human genetic and human genetics, bioweapons and biodefense, and biotechnology. Satisfies Writing II requirement.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6-6-6) (Formerly numbered 72A-72B-72CW) (Same as Communication Studies M72A-M72B-M72CW, Society and Genetics M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course 72A is enforced requisite to 72B, which is enforced requisite to 72CW. Limited to first-year freshmen. Letter grading. 72A-72B. 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. Considered 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. 72CW. Special Topics. Seminar, three hours. Enforced requisite: course 72B. Topics may include all topics of reproduction, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

73A-73B-73CW. Mind over Matter: History, Science, and Philosophy of the Human Brain. (6-6-6). Course 73A is enforced requisite to 73B, which is enforced requisite to 73CW. Limited to first-year freshmen. Letter grading. 73A-73B. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of ethical, social, and political implications as well as biological underpinnings. 73CW. Special Topics. Seminar, three hours. Enforced requisite: course 73B. Topics may include all topics of reproduction, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

80A-80B-80CW. Longevity Revolution: Biomedical, Social, and Policy Perspectives. (6-6-6). Course 80A is enforced requisite to 80B, which is enforced requisite to 80CW. Limited to first-year freshmen. Letter grading. 80A-80B. Lecture, three hours; discussion, two hours. Examination of aging process from vantage points of multiple disciplines, including biology,
Students develop critical reasoning and analytical skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and cultures, and conceptual tools for social change.

The gender studies curriculum challenges the pervasive theory/practice divide within the academy. In both undergraduate and graduate courses, students are taught a broad range of methodological and analytical skills. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In designing 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 several years, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality and is building a strong reputation in the areas of transnational literary and media studies, post-colonial feminist studies, studies of settler colonialism, feminist science studies, feminist policy studies, queer of color critique, and women of color feminism.

**Undergraduate Study**

**Gender Studies B.A.**

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.

**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 the University's diverse resources in creating their program of study. They may pursue traditional and/or innovative subjects in fields ranging from the humanities and fine arts to the social and life sciences. In addition to courses on the gender studies approved list, students may petition to have diverse courses accepted, including courses outside the College of Letters and Science, independent studies, or field study courses.

Each course applied toward the major must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in gender studies courses to receive credit for completing the program. Courses in which they receive grades of C- or lower may not be applied toward the required courses in the major.

**Preparation for the Major**

**Required:** Gender Studies 10. Students must also complete departmental lower division requisites, as applicable, for upper division gender studies courses.

**Transfer Students**

Transfer applicants to the Gender Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower division requisite courses.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admission/transferselectionforadmission.

**The Major**

The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods and (2) provide exposure to a range of feminist and queer scholarship across disciplines. To achieve these goals, the major is divided into three categories.

**Required for Students Who Entered Prior to Fall Quarter 2011: At least 11 upper division courses (minimum of 4 units each) as follows:**

- (1) two core courses selected from Gender Studies 102, 103, 104, M110C, 130, or former courses 110A and 110B, (2) eight elective courses; one upper division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).

**Required for Students Who Entered Fall Quarter 2011 and Thereafter: At least 11 upper division courses (minimum of 4 units each) as follows:**

- (1) three core courses—Gender Studies 102, 103, 104, (2) seven elective courses; one upper division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).

**Honors Program**

The honors program is open to advanced junior and senior Gender Studies majors with a 3.6 grade-point average in gender studies courses and a minimum 3.4 overall GPA who have no outstanding Incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the department chair for approval.

To qualify for honors at graduation, students must successfully complete three successive terms of honors research (courses 198A, 198B, 198C) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 198A may be applied toward the elective requirement; courses 198B and 198C are in addition to the minimum required.
Upper Division Courses

102. Power. (4). Lecture, three hours. Enforced requisite: course 10. Examination 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 and other social movement activists defined and challenged social, political, and economic subordination? How have feminist theorists addressed subject of power? How do empire, colonialism, liberalism, neocolonialism, and globalization produce distinctive forms of gendered violence, gendered knowledge, and gendered subjectivities? How are gender and sexuality produced and regulated by law, nation, and economy? P/N or letter grading.


104. Bodies. (4). Lecture, three hours. Enforced requisite: course 10. Exploration of scholarly theories and histories of body, with focus on topics such as sex identities, sexually gendered violence, and reproductive politics. How has science, medicine, and culture sought to distinguish male from female in different historical periods and locations? How have meanings of terms sex and gender varied across time and place? How has gendered body been represented in different visual cultures? How have embodied identities been produced in different historical and geographic contexts? What is relationship between embodiment and desire? P/N or letter grading.

105A. Diversity in Aging: Roles of Gender and Ethnicity. (4). (Same as Gerontology M104C and Social Welfare M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty of variety of fields to address issues of diversity. Letter grading.

105B. Feminist Theory. (4). Lecture, discussion, three hours. Examination of feminist theories and critical frameworks that explore gender, race, class, sexuality, and culture. Discussion of basic feminist theories and ideas; consideration of intersectionality as a lens to analyze gender and how it intersects with race, class, sexuality, and culture. Letter grading.

105C. Queer Literatures and Cultures after 1970. (5). (Formerly numbered Women's Studies M105C.) (Same as English M101C and Lesbian, Gay, Bisexual, and Transgender Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of queer cultural production, specifically literature, photography, films by such authors as Audre Lorde, Adrienne Rich, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/N or letter grading.

105D. Studies in Queer Literatures and Cultures. (5). (Formerly numbered Women's Studies M105D.) (Same as English M101D and Lesbian, Gay, Bisexual, and Transgender Studies M1101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. 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/N or letter grading.

106. Imaginary Women. (5). (Same as Honors College M106B) Seminar, four hours. Designed for juvenile fiction. Study of fiction by such authors as Adichie, Boluoda, Cheadle, and Joseph-Williams. Discussion of feminist literary production and its impact on development of jazz. Letter grading.

107A. Studies in Women's Writing. (5). (Formerly numbered Women's Studies M107A.) Lecture, four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as: authors of color, cultural production, self-writing, sexuality, gender, and genre. May be repeated for credit with topic or instructor change. P/N or letter grading.

107B. Studies in Gender and Sexuality. (5). (Formerly numbered Women's Studies M107B.) (Same as English M107B and Lesbian, Gay, Bisexual, and Transgender Studies M107B.) Lecture, four hours; discussion; one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor emphasis may be historical, regional, national, comparative, or thematic and include other intersecting identities such as race, class, and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/N or letter grading.

108. Love and Sex in German Literary Tradition. (4). (Same as German M107.) Lecture, three hours. Taught in English. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.


109. Women in Jazz. (4). (Same as African American Studies M109 and Ethnomusicology 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, and producers and their impact on development of jazz. P/N or letter grading.

110C. Philosophical Analysis of Issues in Feminist Theory. (4). (Same as Philosophy M187.) Lecture, three hours. Required for Studies majors: course 10; for other students: one philosophy course. Examination in depth of different theoretical
positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that arise in discussion of women’s rights and liberation. Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

M111. Women and Film. (6). (Same as Film and Television M111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women in cinema 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. Requisite: course 10. Selected topics relating feminist theories to creation of art by women, with consideration of cultural contexts in which they work. Approach to be comparative, cross-cultural, and interdisciplinary. Consideration of artistic practice by women in relation to issues of power, representation, and access. May be repeated twice, except for credit toward Gender Studies major. P/NP or letter grading.

113. Sex Work. (4). Lecture, three hours. Enforced requisite: course 10. Analysis of variety of contemporary sex work both in U.S. and abroad from feminist perspective. Examination of how race, class, and gender shape and define desire and perception of ser vice labor, and consideration of critically feminist responses by range of authors to sex work. Topics include brothels, phone sex, strip clubs, sex tourism, military prostitution, and international trafficking in persons. Reading of texts by sex workers, as well as articles from current philosophical and policy debates about sex work.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (5). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, theory, and cultural studies of lesbian, gay, bisexual, and transgendered people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexuality and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (4). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M115.) Lecture/discussion, three hours. Enforced requisite: course 10 or M114. Study of 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 clinical psychology, historical and political change, life and health experiences, and queer or transgendered theories; multiethnic and cross-cultural emphases. May be repeated for credit. Letter grading.


M117. Women and Politics. (4). (Same as Political Science M107.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to rapidly growing body of empirical and theoretical scholarship on women and politics in both national and international contexts. Topics may include women’s movement in U.S. and globally; women’s electoral participation; representation of women in Congress and in legislatures worldwide; women as heads of government and state; feminist critiques of political science; women and human rights; gender and international law; motherhood as a career; actors; women and military; women, development, and globalization. P/NP or letter grading.

M118. Queering American History. (4). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M118.) Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, and transgender studies course. History of sexual and gender minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stone wall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

M119. Tristan, Isolde, and History of Heterosexualit y. (4). (Same as German M105.) Lecture, three hours. Taught in English, German, French, and English versions of Tristan and Isolde story from Middle Ages to 20th century. Particular attention to relation between representation of heterosexual love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.

M120SL. Feminist Praxis: Community-Based Learning. (4). (Formerly numbered 120.) 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. Includes close consideration of intersectional, exploring how social categories of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by gender and disabilities, including ways that disability intersects feminist theories of patriarchy, representation (arts, literature), education, public policy, health. May be repeated for credit with topic and instructor change. P/NP or letter grading.

M122. Masculinities. (4). Lecture, three hours. Enforced requisite: course 10. Masculinity as theorized by feminists and shaped by race, class, age, and nation. Topics may include race (civil 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 sciences approaches and methodologies. P/NP or letter grading.

M123. Gender, Race, and Class in Latin American Literature and Film, 1850 to 1950. (4). Seminar, three hours; discussion, one hour (when scheduled). Taught in English. German, French, and English versions of Tristan and Isolde story from Middle Ages to 20th century. Particular attention to relation between representation of heterosexual love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.


CM132A. Chicana Feminism. (4). (Formerly numbered Women’s Studies M132.) Lecture, four hours. Enforced requisite: course 10 or Chicana and Chicano Studies CM110.) Lecture, four hours. Enforced requisite: course 10 or Chicana and Chicano Studies 10A. Examination of theories and praxis of Chicana feminism as defined by Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM232A. P/NP or letter grading.


CM133. Chicana Lesbian Literature. (4). (Formerly numbered Women’s Studies M133.) (Same as Chicana and Chicano Studies M133.) Lecture, three hours. Exploration of intersection of radical First and Third World feminist politics, lesbian sexuality and race, relationship to Chicana identity, representation of lesbianism in Chicana literature, meaning of familia in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/Chicana studies. Concurrently scheduled with course CM230. Letter grading.

M135C. Bilingual Writing Workshop. (4). (Same as Chicana and Chicano Studies CM135C.) Seminar, four hours. Limited to juniors/seniors. Writing samples required; access to course webpage mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both political and aesthetic to be central theme. Discussion and analysis of Chicana/Chicano and Latina/Latino short story collections. Peer critique of weekly writing assignments. Emphasis on drafting, pre-writing technique such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism as prevailing Chicanesque/Latinesque style. Some attention paid to context and purpose of work. Letter grading.

M136. Music and Gender. (5). (Same as Music History M136.) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by both male and female musicians; contributions of women to Western art and popular music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137E. Work Behavior of Women and Men. (4). (Same as Psychology M137E.) Lecture, two and one-half hours. Requisite: course 10 or Psychology 10. Designed for seniors. Examination of work behavior of women and men, with an emphasis on occupational re-creation, job findings, leadership, performance evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

138. Gender and Popular Culture. (5). Lecture, three hours; screenings, two hours. Limited to juniors/se-siors. Conceptual tools and critical skills necessary to rigorously interrogate gender politics of popular culture in the U.S. context. Consideration of theories of popular culture and exploration of distinctive power and ideological force exerted by popular culture in American public life. Examination of specific re-presentation of male and female bodies to understand visual vocabulary of gender in popular culture, as well as relationship between visual stereotypes and re-gimes of power, role socialization, minority status of women 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 stereotypes and the representation of gender through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

M140. Women’s Studies in French Literature. (4). (Same as French M140T.) Lecture, three hours. Exploration of selected aspect of situation of women in French intellectual history, including author, character, symbol, etc. P/NP or letter grading.

142. Race, Gender, and Punishment. (4). Seminar, three hours. Enforced requisite: course 10. Examination of role of prison in industrial complex. U.S. has largest prison population in world. How and why is this? Who is imprisoned? What historical conditions and ideologies gave rise to this system? What is the purpose of one prison function as regime? How have politicians used imprisonment as response to economic transformations and social disorders? How is current crisis analogous to historical transformations of punishment in prior historical moments? How do prisons change environments? How have people mobilized to reduce U.S. prison population? Why do some activists argue for reform and others for abolition? Examination of key topics, including policing and racial profiling, immigrant detention, privatization, spatial transformations, gender violence, prison spending, and political imprisonment. P/NP or letter grading.


M144. Women’s Movement in Latin America. (4). (Same as Chicana and Chicano Studies M144 and Labor and Workplace Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discus-sion of indigenous 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 manner in which media culture induces people to given rise to women’s resistance, as well as major debates in field of study. P/NP or letter grading.

145. African American Women’s History. (4). Seminar, three hours. 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 African American history, exploration of key themes including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s 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 to engaging in examination of their individual and collective struggles for freedom from racism, sexism, and heteropatriarchy as well as their participation in and challenge to social move-ments, including suffrage, liberation, civil rights, and black power. P/NP or letter grading.

M146. Feminist Geography. (4). (Same as Geog-raphy M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geography and its role(s) in representation of women in feminist geography and theories, landscapes of gender, challenges of representing gender. Spaces of femininity, masculinity, and sexuality. P/NP or letter grading.

15A. History of Women in the U.S.: Rebellion of Women of 20th Century. (4). Lecture, three hours. Limited to juniors/seniors. Introduction to major and minor figures and movements for social change in the U.S., including themes from politics, sports, civil rebellions, and body. Examination of dramatic challenges to gender roles over course of the 20th century through actions of rebellious women who led way for myriad of changes in women’s lives. Offered in summer; P/NP or letter grading.

15B. Women, Gender, and Sexuality in Italian Culture. (4). (Same as Italian M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths, and women in Italy. Examination 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.

159. Pornography and Evolution. (4). (Same as Communication M159.) Lecture, three hours. Discussion of theories and research on why pornography exists and its effects. Use of topic to illustrate value of evolutionary theory to social sciences generally. Upper-division credit.

162. 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.

164A. History of Women in 20th-Century Japan. (4). (Same as Anthropology M164A.) Lecture, three hours; discussion, one hour. Title refers to interactions between politics and life cycle. Topics include social construction of gender and population, reproductive issues, politicization of mothers, motherhood, and mothering, surrogacy, and new reproductive technologies. Letter grading.

164A. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4). (Same as Asian American Studies M164.) Lecture, four hours. Study of various forms of violence done on women not only in and of themselves but in light of larger systems of oppression, with focus on Pilipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

165. Psychology of Gender. (4). (Same as Psychology M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary gender. Topics include sex-role development and role conflict, physiological and personal differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

167. Contested Sexualities. (4). (Same as Lesbian, Gay, Bisexual, and Transgender Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on the body, gender, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

168. Feminist Economics in Globalizing World. (4). Lecture, four hours. Preparation: satisfaction of Letters and Science Writing II requirement. Requisite: course 10 or 110B. Denarius. Overview of field of feminist economics, with emphasis on development experiences in globalizing world economy. Overview of gender inequalities such as gender division of labor and unpaid work, patterns of employment and unemployment, and wage gaps between men and women in different world economy regions; feminist critiques of capitalism and theoretical debates within gender and development field on topics 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 policies and structures gender-equitable. P/NP or letter grading.

CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (8). Formerly numbered Women’s Studies M170.) (Same as Comparative Literature M170.) Seminar, three hours. Designed for upper division literature majors. Investigations of women’s voices and concerns through modern French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course CM270. P/NP or letter grading.

M170C. History of Women in China, A.D. 1000 to Present. (4). (Same as History M170C.) Lecture, three hours; discussion, one hour (when scheduled). 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.

CM178L. Critical Media Literacy and Politics of Gender: Theory and Production. (4). (Same as Education CM178L.) Lecture, three hours. Corequisite: course CM178. Use of sociological approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278L. Letter grading.

CM180B. Historical Perspectives on Gender and Science. (4). (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical case studies illustrat- ing how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persona of man of science, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

185. Special Topics in Gender Studies. (4). Lecture, three hours. Preparation: one prior gender studies course. Designed for juniors/seniors. Specialized or advanced study in one area within gender studies. May be repeated for credit with topic or instructor change. P/NP or letter grading.
187. Senior Research Seminar: Gender Studies. (4), Seminar, three hours. Requisites: courses 10, 102, 103, 104. Designed for advanced junior/senior Gender Studies 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. Written and critique other student works in progress. Letter grading.

M191D. Topics in Queer Literatures and Cultures. (5), (Same as English M191D and Lesbian, Gay, Bisexual, and Transgender Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. 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 Lesbian, Gay, Bisexual, and Transgender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. 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.

195. Community or Corporate Internships in Women's Studies. (2 or 4), Tutorial, eight hours. Requisites: course 110A or 110B or M110C, or two upper division gender studies courses not in 189 and 199 series. Limited to juniors/seniors. Internship in supervised setting in community agency, organization, or business approved by program. Content of student work must apply gender analysis or be focused on some aspect of gender relations. Students meet on a regular basis with instructor, provide periodic reports on their experience on-site, and submit final report. Must be taken 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 Chicana and Chicano 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 intern coordinator and write a final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Women's Studies. (4), Tutorial, four hours. Preparation: at least two upper division gender studies courses. Required: course 110A or 110B or M110C. Limited to juniors/seniors. Individual intensive 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 tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

198A-198B-198C. Honors Research in Women's Studies. (4-4-4), Tutorial, four hours. Limited to junior/senior gender studies honors program students. Three-term sequence to research and write honors thesis under direct supervision of faculty sponsor and in consultation with faculty cosponsor. Individual contract required. 198A. Requisite: course 187. Letter grading. 198B. Requisite: course 198A. In Progress grading (credit to be given only on completion of course 198C). 198C. Requisites: courses 198A, 198B. Letter grading.

199. Direct-Entry Research in Women's 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 110A or 110B or M110C. 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. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Feminist Knowledge Production: Early/Modem. (4), Lecture/discussion, three hours. Examination of early and modernist feminist theories and epistemologies in context of global flows of people, ideas, and goods in cultural and institutional settings. Evaluation of varied forms of feminist knowledge production and multicritiquing cultures of theories of modernity. Letter grading.

202. Key Theories and Concepts in Gender Studies. (4), Lecture, three hours. Requisites: courses 10 and/or 110A. Exploration of debates in field to key intellectual and social movements (such as Marxism, poststructuralism, critical race studies, 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 works in field and survey of key methodologies, examination of key concepts and debates in gender studies, and identification of debates that have generated key analytic frameworks in feminist and gender studies scholarship. May be repeated once for credit with instructor change. Letter grading.

203. Epistemologies of Gender. (4), Lecture/discussion, three hours. Focus on debates concerning methods of inquiry in gender and sexuality studies and exploration of intersections of feminist studies, masculinity studies, and queer studies. Debates and interventions concern interdisciplinary, intersectional feminist methods and changing boundaries of field over time. Explores critical tools to utilize and interrogate existing methodologies. Issues include examination of how feminism has shaped and been shaped by processes of knowledge-production within and across academic and cultural spaces and paradigms, and importance of intersectional, standpoint, and queer theory as critical research tools and as responses to issues of power, domination, oppression, and other loci of identity and difference. May be repeated once for credit with instructor change. Letter grading.

204. Research Design and Professional Development. (1), Seminar, three hours. Requisites: third year gender studies graduate students. To be taken after all other coursework is complete; primarily geared toward professional development for students as they prepare to enter academia or other professions. Help in preparation for fall grant-writing session, exploration of job/interview process, development of material(s) for teaching, and career development with emphasis on job/interview process, preparation of vita/curriculum vitae. May be repeated once for credit with instructor change. Letter grading.

205. Gender and Politics of Information. (4), Seminar, three hours. Designed for graduate students. Examination of gendered dimensions embedded in information technologies. Critical feminist assessment of information as resource and commodity; impact of Internet and information technologies on women and men; gendered distinctions between who builds and who “owns” information technology resources; race, class, gender relations in cyberspace and electronic communications. Letter grading.

210. Topics in Women's and Gender Policy. (4), Lecture, four hours. Designed for graduate gender studies students. Introduction to background, decision-making processes, and current debates over public policy directly affecting women in one or more major spheres of public life (social, political, medical, educational, and legal systems). Topics may focus on public health, political science, medicine, women's studies, and social welfare. May be repeated for credit with topic or instructor change. Letter grading.

215. Topics in Sexuality and Gender. (4), Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of gender orientation, gender identity, queer and trans-gender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexuality. (4), Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in literary and cultural production. Focus will be on field(s) of a particular period or subfield(s) with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing feminqueer as diasporic or multicultural formation(s) in the globalized world (such as Latin American Studies, African American Studies, Chicana and Chicano Studies, etc.). Letter grading.


CM232A. Chicana Feminism. (4), (Same as Chicana and Chicano Studies CM232A.) Lecture, four hours. Enforced requisite: course 10 or Chicana and Chicano Studies 10A. 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 inequalities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM132A. S/U or letter grading.

M238. Feminist Theory. (4), (Same as Sociology M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of sexism and/or feminism by feminists and/or feminists of color, feminist scholars from other
countries, and recent “antifeminist” feminists. Discussion of directions for future feminist sociology. Letter grading.


M252. Selected Topics in Sociology of Gender. (4). (Same as Sociology M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4). (Same as Education M253A) Seminar, four hours. Examination of some of most influential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

M255. Cross-Cultural Perspectives on Gender. (4). (Same as Sociology M255.) Seminar, four hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or united feminist movements possible or is gender too different cross-culturally? S/U or letter grading.

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 Perspective. (4). (Same as Ethnomusicology M261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnomusicology of gender and sexuality, (de)codification of messages of resistance, and gender representation to gendered politics via musical production, S/U or letter grading.

M263P. Gender Systems. (4). (Same as Anthropology M263P.) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M266. Feminist Theory and Social Sciences Research. (4). (Same as Education M266.) Lecture, four hours. Examination of how diverse feminist social theories to this last quarter century have both challenged and strengthened conventional social sciences theories 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. Designed for graduate students. Investigation of narrative texts by contemporary French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course CM170. S/U or letter grading.

CM278. Critical Media Literacy and Politics of Gender. (4). (Same as Education CM278.) Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2). (Same as Education CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

285. Special Topics in Women's Studies. (4). Lecture/discussion. Four hours. Designed for graduate students. Selected topics or special problems. In-depth study of aspects of feminist theory or research methods or gender analysis within disciplinary studies in social sciences, humanities, health sciences, arts, or professional programs. May be repeated for credit with topic or instructor change. Letter grading.

296. Doctoral Roundtable. (2). Research group meeting, two hours. Preparation: satisfactory completion of Ph.D. program first year. Requisites: at least two courses from 201, 202, 203, 210. Limited to program Ph.D. students. Interactive seminar with focus on disciplinary and interdisciplinary issues, feminist scholarship, research presentation, and professional development. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel development 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.

495. Feminist Pedagogy. (2). Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Required of students while serving as teaching assistants (first time only) in undergraduate gender studies courses. May be repeated for credit. S/U or letter 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 M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12). Tutorial, eight hours. Limited to graduate gender studies students. Reading and preparation for written M.A. comprehensive examination or Ph.D. qualifying field examinations. May be repeated for a maximum of 12 units. S/U grading.


Judith A. Carney, Ph.D.
Jared M. Diamond, Ph.D.
Cindy Fan, Ph.D.
Thomas W. Gillespie, Ph.D.
Susanna B. Hecht, Ph.D.
Helga Lettner, Ph.D.
Glen M. MacDonald, Ph.D. (John Muir Memorial Endowed Professor of Geography)
Gregory S. Okin, Ph.D.
Marlyn N. Raphael, Ph.D.
David L. Rigby, Ph.D.
Eric S. Sheppard, Ph.D. (Alexander von Humboldt Endowed Professor of Geography)
Laurence C. Smith, Ph.D.
Michael C. Storper, Ph.D.
Yongkang Xue, Ph.D.

Professors Emeriti
Charles F. Bennett, Jr., Ph.D.
William A.V. Clark, Ph.D.
Michael R. Curry, Ph.D.
Gary S. Dunbar, Ph.D.
J. Nicholas Entikrin, Ph.D.
Gerry A. Hale, Ph.D.
Antony R. Orme, Ph.D.
Melissa Savage, Ph.D.
Allen J. Scott, Ph.D.
Edward W. Soja, Ph.D.
Werner H. Terjung, Ph.D.
Norman J.W. Thrower, Ph.D.
Stanley W. Trimble, Ph.D.
Hartmut S. Walter, Ph.D.

Associate Professors
Stephen A. Bell, Ph.D.
Lieba B. Faier, Ph.D.
Yongwei Sheng, Ph.D.
Michael E. Shin, Ph.D.

Assistant Professors
Daniela F. Cusack, Ph.D.
Lisa Kim Davis, Ph.D.
Jami M. Goodwin-White, Ph.D.
Adam D. Moore, Ph.D.

Adjunct Assistant Professor
Thomas H. Painter, Ph.D.

Scope and Objectives
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 and economies and at the environmental problems they produce.

Geography addresses many issues about the contemporary world. Some are local, such as documenting the development of ethnic neighborhodsw 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 and location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as the computer analysis of satellite photographs to look for changes in river courses and the computer modeling of shifts in global vegetation patterns and the distribution of human populations. Research is also conducted in libraries and ar-
chives, probing documentary sources on human interaction with the natural world and how that world is imagined.

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.

The department has one of the top programs in the U.S. and offers two undergraduate majors that lead to the Bachelor of Arts degree: Geography and Geography/Environmental Studies. The Geography major combines a broad background in the field with specific tracks. The Geography/Environmental Studies major focuses on the impact of humans on the natural environment. Also offered are undergraduate minors in Geography, Geography/Environmental Studies, and Geospatial Information Systems and Technologies.

The department also offers M.A. and Ph.D. degrees. 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.

Undergraduate Study

Geography B.A.

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.

Preparation for the Major

Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4 or 6, and Statistics 12. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Geography major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, and one statistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division geography courses (44 units minimum), each taken for a letter grade.

Geography/Environmental Studies B.A.

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.

Preparation for the Major

Required: Geography 1 or 2, 3 or 4 or 6, 5, and Statistics 12. 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.

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 ecosystem course, and one statistics course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division geography courses, each taken for a letter grade, that must be distributed as follows: (1) natural systems core—two courses from 100, 101, 102, 103, 104, 105, 108, 111, 112, M127; (2) human systems core—two courses from 118, 133, 134, 138, 140, 142, M146, 147, 148, 150, 151, M153, 155, 159A; (3) environmental studies cluster—four courses from M106, M107, M109, 110, 113, 114, M115, 116, 120, 121, 122, 123, 124, 125, 126, M127, M128, 129, M131, 132, 135, 136, M137, 159C, 159D, 159E; (4) procedures—two courses (8 units) from 100A (2 units), 101A (2 units), 105A (2 units), 162, 163, 167, 168, 169, 170, M171, 172, 173, 177; and (5) regions—one course from 136, 139, 152, 156, 158, 180, 181, 182A, 182B, 183, 184, 185, 186, 187. Each course must be taken for a letter grade.

Geography/Environmental Studies majors are advised to complete the required courses in the natural and human systems cores before taking courses in the environmental studies cluster.

Honors Program

The honors program is designed for Geographers and 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 of 3.5 or better in all upper division geography courses and a 3.0 overall. 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). Contact the undergraduate advising office for further information.

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 how institutions and cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Geography Department Advising Office, 1255 Bunche Hall, (310) 825-1166. Courses should be selected in consultation with the departmental adviser.

Required Lower Division Courses (10 units): Two courses from Geography 1, 2, 3, 4, 6. It is recommended that students take these courses before attempting upper division courses.

Required Upper Division Courses (20 units): Any five upper division geography 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 soci-
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, one hour. Examination of how and why human activities influence spatial patterns of economic activity and influence or are influenced by evolving global economic forces. P/NP or letter grading.

5. People and the 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 environmental 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 interactions 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. P/NP or letter grading.

7. Introduction to Geographic Information Systems. (5). Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamental principles and concepts necessary to carry out sound geographic analysis with geographic information systems (GIS). Reinforcement of key issues in GIS, such as geographic coordinate systems, map projections, spatial analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.

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.


Upper Division Courses


100A. Principles of Geomorphology: Field and Laboratory. (2). Laboratory/work, six hours. Corequisite: course 100. Field and laboratory investigations of weathering processes, transport, deposition, and material transfers. Space and time considerations. P/NP or letter grading.

101. Coastal Geomorphology. (4). Lecture, three hours; reading period, one hour. Requisite: course 1. Recommended: course 101A. Study of origin and development of coastal landforms, with emphasis on past and present changes, hydrodynamic processes, sediment transfers, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, and seascapes, together with coastal zone management. P/NP or letter grading.

101A. Coastal Geomorphology: Field and Laboratory. (2). Laboratory/work, six hours. Corequisite: course 101. Field and laboratory investigations of coastal landforms, with emphasis on past and present changes, hydrodynamic processes, sediment transfers, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, and seascapes, together with coastal zone management. P/NP or letter grading.

102. Tropical Climatology. (4). Lecture, three hours. In-depth exploration of development of tropical climate, with special reference to ENSO, and monsoons. Examination of human interaction with tropical climate processes and human-induced climate change in tropics. Use of climatological information to foster sound environmental management of climate-related resources in tropics. P/NP or letter grading.

103. Paleoclimatology and Ice-Age Environments. (4). Lecture, three hours; discussion, one hour. Requisite: course 1. Study of past climates and their environmental impact, with emphasis on last three million years, including evidence for glaciation and interglacial conditions, historic changes, paleogeographic re-construction, external and internal forcing mechanisms, and human implications. P/NP or letter grading.

104. Climatology. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of many relations between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.


M106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4). (Same as Atmospheric 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, techniques, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

M107. Soil and Water Conservation. (4). (Same as Environmental M114.) Lecture: three hours; discussion, one hour. Designed for juniors/seniors. Systematic study of processes of and hazards posed by erosion, sedimentation, and pollution and techniques needed to conserve soil and maintain environmental quality. Scope includes forest engineering, mining, and other rural uses of land. P/NP or letter grading.


M109. Human Impact on Biophysical Environment: What Changed? (4). (Same as Environmental M109.) Lecture: three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between environment and human population. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and land use) giving emphasis to the interdependent nature of the environment. P/NP or letter grading.

110. Population and Natural Resources. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of debate about environmental change and ability of planet to maintain growing population. Introduction and evaluation of basic demographic processes in context of increasing population in developing countries and decreasing population in Western countries. P/NP or letter grading.

111. Forest Ecosystems. (4). Lecture, three hours; field trips. Prerequisite: course 2 or Life Sciences 1. Designed for juniors/seniors. Examination 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.


113. Humid Tropics. (4). Lecture, three hours. Prerequisite: course 2 or Life Sciences 1. Designed for juniors/seniors. Examination of humid tropicals, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.

114. Africa and African Diaspora in Americas. (4). Lecture, three hours. Prerequisite: one course for juniors/seniors. Historical-geographical examination of Africa's role in Americas, with emphasis on environment, agriculture, food systems, and medicinal crops. P/NP or letter grading.

M115. Environmentalism: Past, Present, and Future. (4). (Same as Environment M132 and Urban Planning M165.) Lecture: three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences shaped 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 political, economic, social, and political dimensions of environmental issues. Examination of local and state laws and efforts to promote interdisciplinary and holistic understanding of environmental issues. P/NP or letter grading.

116. Biogeography of Plant and Animal Invasions. (4, 1). Lecture, three hours; field trips. Prerequisite: course 1 or 2. 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.

M117. Ecosystem Ecology. (4). (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Prerequisite: course 2 or Life Sciences 1. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

118. Medical Geography. (4). Lecture, three hours; reading period, one hour. Prerequisite: course 5. Examination of patterns of population/place/disease interactions and some effects of change and development on disease etiology and problems of healthcare. P/NP or letter grading.

119. Biophysical and Social Transformations in Northern Regions. (4) Lecture, three hours. Enforced prerequisite: course 5. Substantial transformation of world's northern latitudes due to climate change, natural resource development, and key demographic trends of 21st century. Climate models project rising mean air temperatures and precipitation, and less sea-ice cover in Arctic Ocean, consistent with field observations of rising river flows, shrinking glaciers, and thawing permafrost. Ability of northern societies to react to these phenomena is shaped by new legal frameworks, like aboriginal land claims agreements in North America, and resource economies, like oil and gas in West Siberia. Eight northern countries (including U.S.) face array of challenges and opportunities ranging from species extinctions to increased viability of shipping lanes. Major cities like Vancouver, Cuxhaven, and Saint Petersburg see highly desired places to live, emigrate, and work. Blending of principles of human and biophysical geography to gain new understanding of northern quarter of planet, placed within broader global context. Letter grading.


125. Health and Global Environment. (4). Lecture, three hours; reading period, one hour. Impact of environmental lifestyle on health examined from geographical perspective, with examples from both developed and developing countries. P/NP or letter grading.


M127. Soils and Environment. (4). (Same as Ecology and Evolutionary Biology M127.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of 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.


129. Seminar: Environmental Studies. (4). Seminar, three hours; reading period, two hours. Preparation: one course each from natural and human systems courses plus three environmental studies cluster courses. Limited to seniors. Qualitative/quantitative analysis of problems associated with rational protection and use of selected environmental systems (urban, rural, forest, desert, coastal, water, soil, or others). P/NP or letter grading.

130. Geographical Discovery and Exploration. (4). Lecture, three hours; reading period, one hour. Prerequisites: courses 2, 5. Designed for juniors/seniors. Survey of history of exploration from earliest times to modern, with emphasis on period from Marco Polo to present. P/NP or letter grading.


133. Cultural Geography of Modern World. (4). 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.
134. Space, Place, and Nature in Western Thought. (4). Lecture, three hours. Designed for juniors/seniors. History of development of basic ideas of geography—space, place, and nature—in Western thought. Relationship between those ideas and conceptions of science, knowledge, and inquiry. P/NP or letter grading.


137. Historical Geography of American Environment. (4). (Same as Environment M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in U.S. during historical time, with emphasis on interplay between and among natural factors of climate, soils, vegetation, and landforms, and human factors of settlement, economic activity, technology, and cultural traits. P/NP or letter grading.

138. Place, Identity, and Networked World. (4). Lecture, three hours; reading period, one hour. Communications technologies, such as personal computers, to be connected to historical and contemporary interactions involving people in both Japan and other parts of world. P/NP or letter grading.

140. Political Geography. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatiality of political activity, spatial constitution of political power, control over space as central component to political struggles. Studies at local, national, state, and international levels. P/NP or letter grading.

141. Uneven Development Geographies: Prosperity and Impoverishment in Third World. (4). Lecture, three hours. Geographical perspective on part of globe commonly called Third World (global South). How development has shaped livelihood possibilities and practices, by global processes stretching back centuries, and transformative possibilities of Third World societies 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 livelihood possibilities for Third World majority and minorities that prosper massively, as well as geographical differences (culturally, environmentally, and socially) across Third World. Examination of possibilities and practice of globalizing processes 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.


143. Population in Interacting World. (4). Lecture, three hours. Provides multidisciplinary understanding of and appreciation for human population phenomenon and 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 different parts of world, and demographic aging in highly industrialized countries, increasing levels of international migration, refugee crises, massive rural to urban migrations, and creation of new geographical, requiring (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.

144. Ethnicity in American Cities. (4). Lecture, three hours; reading period, two hours. Limited to juniors/seniors. Designed to encourage and facilitate ongoing thinking about geographical aspects of ethnicity in contemporary America. Use of comparative perspective to explain changing distribution, social, economic, and political behavior, and adjustment processes of ethnic groups in face of contemporary American cities. P/NP or letter grading.

145. Slavery and Human Trafficking. (4). Lecture, three hours; reading period, one hour. Enforced requisites: course 2, course 9, Gender Studies 10, or Sociology 1. Limited to juniors/seniors. Exploration of how, and to what ends human trafficking has been conceptualized as global problem that warrants international response. Examination of recent activist, governmental, scholarly, and media responses, and reflection on what is and is not accomplished by them. Questions of human trafficking are implicit in geographies of freedom and 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 on Philippines as case study for exploring both contemporary examples and historical forms of enslavement. P/NP or letter grading.

146. Feminist Geography. (4). (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spaces of feminism, masculinity, and sexuality. P/NP or letter grading.

147. Social Geography. (4). Lecture, three hours; discussion, one hour. Intentionality 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.


M149. Transportation Geography. (4). (Same as Urban Planning M150.) Lecture, three hours. Requisites: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. P/NP or letter grading.


152. Cities of Europe. (4). Lecture, three hours; reading period, one hour. Designed for 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.

M153. Past People and Their Lessons for Our Own Future. (5). (Same as Anthropology M153Q and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how other modern people are coping or failing to cope with similar issues. P/NP or letter grading.

154. Images of Earth: World from Above. (4). Lecture, three hours. Use of maps, charts, diagrams, and other images to show how Earth has been represented through ages, how they have been influenced by current ideas, and how they have themselves influenced course of events. P/NP or letter grading.


156. Metropolitan Los Angeles. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, interactions, environmental and spatial problems of Los Angeles metropolitan area. P/NP or letter grading.


159A-159E. Problems in Geography. (4 each). Discussion, three hours; reading period, one hour. Preparation completion of three courses in one concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/NP or letter grading.

159A. Urban and Regional Development Studies; 159B. Spatial Daimong and Social Processes in Cities; 159C. Culture and Environment in Modern World; 159D. Physical Geography; 159E. Biogeography.

Procedures

162. Glacier Environments of California's High Sierra. (4). Fieldwork, 10 hours; discussion, four hours. Introduction to alpine and glacial environment through three hours of introductory lecture followed by intensive seven-day field trip to California's High Sierra. Students carry out laboratory exercises, as well as data collection for research projects designed around their individual interests. Presentation of additional
evening lectures, using presentation facilities at Sierra Nevada Aquatic Research Laboratory (SNARL). Offered in summer only; P/NP or letter grading.


166. Environmental Modeling. (4). Lecture, one hour; laboratory, two hours. Presentation of basic concepts related to computer modeling of biochemical cycles, geomorphic processes, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with existing models. P/NP or letter grading.


169. Satellite Remote Sensing and Imaging Geographic Data. (4). Lecture, three hours; laboratory, one hour. Enforced requisite: course 7. Introduction to fast-growing field of environmental monitoring from space. Application of Landsat, radar, Global Positioning System (GPS), and Earth Observing System satellites to land-use change, oceanography, meteorology, and environmental monitoring. Introduction to digital image-processing and imaging geographic information systems (GIS) software. P/NP or letter grading.


173. Geographic Information Systems Programming and Development. (4). Lecture, two hours; laboratory, two hours. Enforced requisite: course 168. Introduction to fundamental concepts and architecture of programming objects in widely used geographic information systems (GIS), and programming in GIS environment. Application of GIS customization and development using variety of programming languages. Lectures followed by laboratory exercises. P/NP or letter grading.

177. Field Methods in Physical Geography. (5). Lecture, three hours; laboratory, three hours. Not open for credit to students with credit for course M127. Examination of field procedures and concepts used in observation, measurement, analysis, and interpretation of physical phenomena pertinent to natural and built environment. Topics vary from year to year and may be of topics in geomorphology, geography, and field methods in geographic information science. May be repeated for credit with topic change. P/NP or letter grading.

Regions


181. Mexico, Central America, Caribbean. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Middle America and contemporaneous economic and cultural geography of Mexico and countries of Central America and West Indies. P/NP or letter grading.

182A. Spanish South America. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of temporary and contemporary economic and cultural geography of individual Spanish-speaking countries. P/NP or letter grading.

182B. Brazil. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Portuguese South America and contemporary economic and cultural geography of Brazil. P/NP or letter grading.

183. Europe. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic conditions and their relation to economic, social, and political problems in Europe. P/NP or letter grading.

184. California. (4). Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic and regional treatment of geography of California, including physical, political, and economic aspects and detailed studies of various regions. P/NP or letter grading.

185. South and Southeast Asia. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic conditions and their relation to economic, social, and political problems in Asia. P/NP or letter grading.

186. Contemporary China. (4). Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic geographic analysis of elements of People’s Republic of China. Dynamics that have led to China’s major role in East Asia and international scene, with special attention to China-Japan and Sino-American relations and their geographic basis. P/NP or letter grading.

187. Regional Climate and Terrestrial Surface Processes. (5) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analysis of economic, social, and political geography of area extending from Iran to Morocco and from Turkey to Sudan. Emphasis on geographical themes and problems during historical and modern times. P/NP or letter grading.

Special Studies

191. Variable Topics Research Seminars: Geography. (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 majors and minors. P/NP or letter grading.

194. Research Group Seminars: Geography. (2). Seminar, two hours; research group meeting, two hours. Designed for undergraduate students who are part of research group. May be repeated for credit with topic change. C194A. Research Group Seminars: Issues in Biophysical Geography. (1), Seminar, one hour. Designed for undergraduate students who are part of research group. May be repeated for credit with topic change. Concurrently scheduled with course C296A. P/NP grading.

195. Community or Corporate Internships in Geography. (4). Tutorial, open for credit to students in junior or senior years with credit for course M127. Internship of eight to ten hours per week in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198A-198B. Honors Research in Geography I, II. (4-4), Tutorial, to be arranged. Preparation: 3.5 grade-point average in division courses. Undergraduate honors division courses are 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct guidance of two faculty members. May be repeated for a maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 8). Tutorial, to be arranged. Limited to juniors with a 3.0 average in major or seniors. May be repeated for a maximum of 16 units. P/NP or letter grading.

Graduate Courses

Environment

200. Advanced Topics in Geomorphology. (4). Lecture, two hours; discussion, one hour; reading period, eight hours. Preparation: two courses from 101, 103, 105, M107. Requisite: course 100. Analysis of geomorphic theories since scientific revolution, with emphasis on catastrophism, uniformitarianism, glacial theories, astosasy and eustasy, evolution and cyclicality, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporaneous milieu. S/U or letter grading.

204. Advanced Climatology. (4). (Formerly numbered 204A.) Lecture, three hours; laboratory, one hour. Preparation: one year of calculus and acquaintance with Fortran IV. Requisite: course 104. Introduction to tools and concepts of environmental physics of relevance to natural and man-made landscapes. Such basic interrelational, mathematical, and technical programming tools are of special concern to physical geographers, ecologists, and architects. S/U or letter grading.

205. Seminar: Climatology. (4). Seminar, three hours; reading period, one hour. Requisites: courses 204A, 204B, 204C. Selected topics. May be repeated for credit. S/U or letter grading.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Atmosphere Interactions. (4). (Same as Atmospheric and Oceanic Sciences M206.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Physical concepts and basic principles of land-surface/atmosphere interactions. Exploration of topics in terms of regional and global perspective and implications. Human activities cause changes in
land cover, which in turn affect regional climate. Some regions, in particular, appear to be hot spots. Regions to be studied in detail, S/U or letter grading.

208. 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.

213. Seminar: Biogeography. (4). Seminar, three hours; reading period, two hours. Requisite: course 208 or 212. Related research projects growing out of courses 208 or 212. May be repeated for credit. S/U or letter grading.

215. Advanced Topics in Environmental Change. (4). Seminar, three hours; reading period, two hours; fieldwork, three hours. Preparation: at least one course from 200 through 205 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.

218. Advanced Medical Geography. (4). Lecture, two hours; discussion, one hour; reading period, one hour. Requisite: two-year depth study of selected topics in medical geography and intensive review of recent research. S/U or letter grading.

223. Seminar: Humid Tropics. (4). Seminar, three hours; reading period, two hours. Designed for graduate students. Topics: Biophysical and cultural complexes of the humid tropics, with emphasis on problems related to human settlement and livelihood. May be repeated for credit. S/U or letter grading.

227. Land Degradation. (4). Seminar, three hours. Discussion on impact of human activities and institutions on terrestrial ecosystems and goods and services they provide. Topics vary from year to year. May be repeated for credit with topic change. S/U or letter grading.

228. 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.

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 urban and rural social and economic systems in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policies and urban impacts. Gives students important background for courses M229B, M229C, and many other planning courses addressing Third World issues. 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 global change. Course addresses these questions: in ways that go beyond green consumerism and bifurcation of wild, ecological, and human environments. American environmentalism has become dominant model for many conservation practices. Informed by Muirist model of idea of untrammeled nature with many reasons to be skeptical of both in mental policy and as key idea in conservation and templation of nature; this approach used in environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.

M229C. Resource-Based Development. (4). (Formerly numbered M229.) (Same as Urban Planning M234C.) Lecture, three hours. Recommended preparation: course M229A. Some major issues associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous management, involvement of stakeholders, conflict, and social grosses, and environmental and social impact of its development. Letter grading.

Human Geography

231. Advanced Topics in Economic Geography. (4). Seminar, three hours; reading period, three hours. Designed for graduate students. Advanced study of economic theories and principles S/U or letter grading.

232. Advanced Topics in Cultural Geography. (4). Seminar, two hours; discussion, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions about cultural landscapes of development of cultural landscape in different geographic environments. S/U or letter grading.

233. 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.

235. Seminar: Social Geography. (4). Seminar, three hours; reading period, one hour. Process of doing social/cultural research. Concepts of interviewing, adapting, and reformulating social and critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social and cultural geography. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race, sexuality, subjects and spatiality resistance and agenda, and social difference and identity. S/U or letter grading.

M236A. Theories of Regional Economic Development I. (4). (Same as Public Policy M240 and Urban Planning M236A.) Lecture, two 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.

M236B. Globalization and Regional Development. (4). (Same as Urban Planning M236B.) Lecture, three hours. Requisite, course M236A. Application of theories of regional economic development, location, and trade learned in course M236A to contemporary processes known as globalization. Examination of nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.

237. Seminar: Historical Geography. (4). Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

240. Advanced Political Geography: Geopolitics. (4). Lecture, two hours; discussion, one hour; reading period, one hour. Intensive study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.

M241. Seminar: Political Geography of Italy. (4). (Formerly numbered 241.) (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.


243. International Migration. (4). (Same as Sociology M236.) Lecture, two hours. Further examination of current major topics in international migration, with emphasis on exploring both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in field. S/U or letter grading.

245. Advanced Topics in Urban Geography. (4). Seminar, two hours; discussion, one hour; reading period, one hour. General study of hierarchy of urban places, including diffusion within urban hierarchy and theories to account for location and size distribution of cities. S/U or letter grading.

251. Seminar: Urban Geography. (4). Seminar, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit. S/U or letter grading.

Procedures

260. Advanced Field and Laboratory Methods in Biophysical Geography. (4). Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geography research. May be repeated for credit with instructor change. S/U or letter grading.


M265. Environmentalisms. (4). (Same as Urban Planning M265.) Lecture, three hours; discussion, one hour. Review of environmental theories and their prac- tical use in American, U.S. and international contexts. Issues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of problems of increasing internationalization (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.

268. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (4). Lecture, one hour; laboratory, three hours. Recommended requisite: course 169 or 170 or Earth, Planetary, and Space Sciences 150. Familiarity with GIS or image processing package expected. Individualized research projects conducted on UNIX platforms within structured course environment. All aspects of modest but original project, including data acquisition, ingestion, and analysis; interpretation of results and presentation in publication-style format. Letter grading.


Regions

282. South America. (4). Seminar, three hours; reading period, two hours. Topics may vary. Current issues in geography of South America, with focus mainly on cultural/historical geographical perspectives on national period; themes and periods can be adapted to individual interests. S/U or letter grading.

286. 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.
292. Advanced Regional Geography: Selected Regions. (4). Lecture, three hours; discussion, one hour. Preparation: appropriate upper division regional course. Lecture series is limited to one specific region at discretion of instructor. May be repeated for credit. S/U or letter grading.

Seminars

295. Seminar: Geographic Thought. (4). Seminar, three hours; reading period, two hours. Designed for graduate students. Discussion and study of topics significant to the growth of modern philosophy of geography. S/U or letter grading.

C296A. Research Group Seminars: Issues in Biophysical Geography. (1). Seminar, one hour. Bi-monthly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C194A. S/U grading.

296B. 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.

296C. 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.

296D. Agriculture and Food Studies Colloquium. (1). Seminar, one hour. Current scholarly debates surrounding topics on 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 work, works-in-progress by participants, and distinguished guest speakers. S/U grading.


Core Courses

297A. 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.

297B. Physical Basis of Geography. (4). Lecture, three hours; reading period, one hour. Critical evaluation of formative influences, paradigm shifts, and present challenges of physical geography, illustrated from historical developments and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and soils. S/U or letter grading.

297C. Evolution, Ecology, Environmentalism, and Roots of Modern American Geography. (4). Seminar, three hours; reading period, one hour. 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.


299A. Statistical Methods for Geographic Research. (4). Lecture, three hours; laboratory, two hours. Use of linear models, discriminant functions, and factor analysis to analyze problems in geography. S/U or letter grading.


299C. Qualitative Methods and Methodology. (4). Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cultural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.

299D. 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.

299E. Remote Sensing of Environment. (4). Laboratory, three hours; independent study, two hours. Requisite: course 167. Study of aerial photographs and other remote sensing images as tools for geographical research, with analysis of landscapes and interpretation of interrelationships of individual features in their physical and cultural context. 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 supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching College Geography. (2). Seminar, one hour; laboratory, three hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. May be repeated for credit. S/U grading.


GERMANIC LANGUAGES

College of Letters and Science

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James A. Schultz, Ph.D.

Professors Emeriti

Ehrhard Bah, Ph.D.
Mariana D. Birnbaum, Ph.D.
Hans Wagener, Ph.D.

Associate Professor

Christopher M. Stevens, Ph.D.

Lecturer

Magdalena Tarnawska Senel, Ph.D.

Scope and Objectives

The Department of Germanic Languages offers an extraordinary array of courses in languages, literatures, and cultures. This broad range of studies offers training in specialized fields such as film, linguistics, folklore, and critical theory. Courses prepare students for a variety of careers, including law, business, international relations, academic professions, and publishing.

Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers Master of Arts and Ph.D. degrees. Refer to the Scandinavian Section later in this catalog for information about the degrees in Scandinavian studies.

At all levels of study various specializations are possible. Language, literature, and culture studies are available in Afrikaans, Dutch, and Icelandic, in addition to German. The program also provides opportunity for study, work-study, and internships in a German-speaking country or in a country related to the course of study.

Undergraduate Study

The German major is a designated capstone major. During their senior year, students participate in a seminar where, under the guidance of a faculty member, they reflect individually and collaboratively on prior coursework for the major, review their work in those courses, and draw out common themes. Through this process students are expected to draw from their prior coursework to identify a key idea or theme that interests them, demonstrate skills at analyzing and synthesizing knowledge, show their capacity to work well with peers, and present effectively what they have learned in a final paper or project.

Grammar/Composition Courses

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Afrikaans, Dutch, German, and Yiddish grammar and/or composition. Students with demonstrated preparation may be permitted to transfer to a more advanced course with consent of the instructor.
Germanic Languages Minor

To enter the Germanic Languages minor, students must have an overall grade-point average of 2.0 or better.

Required Upper Division Courses (28 units):
- Seven courses in any of the following languages and literatures: Afrikaans, Dutch, German (excluding German literature in translation), Scandinavian languages, Yiddish.
- 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Germanic Languages offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Germanic Languages and a Master of Arts (M.A.) degree in Scandinavian (see Scandinavian Section).

Afrikaans

Lower Division Course

40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Preapartheid to Postapartheid Era in English Translation. (5). Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or SH. Development of all literature in Afrikaans, with special attention to authors and poets who protested apartheid—Brink, Breitenbach, Van Heerden, Jonker, Joubert, Krige, Krog, Le Roux, Rabie, Smal, and Willemsse. Additional readings by Coetzee, De Lange, Krogh, and others on censorship, imprisonment, South African history, and post-colonial literary theory. P/NP or letter grading.

Upper Division Courses


105B. Intermediate Afrikaans. (4). Lecture, four hours; language laboratory. Requisite: course 105A. Grammatical exercises; reading and linguistic analysis of texts from both literary and nonliterary sources. P/NP or letter grading.

135. Introduction to Afrikaans Literature. (4). Discussion, three hours. Requisite: course 105B. Analysis of selected works from founding of Genootskap van Regte Afrikaners in 1875 to present time, including novels by recent writers such as Leroux and Brink, as well as work of poets such as Ebbers, Oppepern, W.E.G. Louw, Van Wyk Louw, and Breitenbach. P/NP or letter grading.

199. Directed Research or Senior Project in Afrikaans. (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. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Afrikaans. (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.

Graduate Study

10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes. (8). Lecture, three hours; discussion, 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.

Upper Division Courses

103A-103B. Elementary Dutch. (4–4). Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to standard language of Netherlands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6–6). Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish: Literature in Translation. (4). Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern (Flemish) Belgium such as Boon, Claas, Couperus, Hermanis, Mulisch, Multatuli, and Reve and selected poets such as Campert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, Van Ostaijen, and Vroman. Letter grading.


131. Introduction to Modern Dutch Literature. (4). Discussion, three hours. Requisite: course 103B or 120. Selected works of literature of Netherlands and northern (Flemish) Belgium from mid-1850s to present, including novels by such writers as Multatuli, Couperus, Hermanis, Mulisch, and Reve and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vijftig. P/NP or letter grading.
German

Lower Division Courses

1. Elementary German. (4). Lecture, five hours; laboratory, one hour. P/NP or letter grading.

10. Intermediate German: Intensive. (12). Lecture, three hours; discussion, one hour. Preparation for Graduate Division foreign language reading requirement. May not be applied toward degree requirements. S/U grading.

15. Elementary German for Graduate Students. (4). Lecture, four hours. Preparation for Graduate Division foreign language reading requirement. May not be applied toward degree requirements. S/U grading.

2. Elementary German. (4). Lecture, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.


8. 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.


12. German Conversation. (4). Discussion, three hours. Enforced requisite: course 3. Conversation course designed for intermediate and advanced students who wish to improve their spoken command of German. Topics of current student interest to be used as basis for conversation. P/NP or letter grading.

50A-50B. Great Works of German Literature in Translation. (4-5). Lecture. May not be applied toward completion of major in German. P/NP or letter grading.

50A. Medieval Period through Classicism. (4) Lecture, three hours. Study and analysis of selected masterworks in English translation, including works from earliest period, such as heroic and courtly epic, to authors such as Grimmelshausen, Lessing, Schiller, and Goethe. P/NP or letter grading.

50B. Romanticism. (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, Hesse, Grass, Böll, and Christa Wolf. P/NP or letter grading.

55. City as Text: German Exile Culture in Los Angeles. (4). Lecture, three hours. Cultural and historical exploration of exile as site of creative activity for German writers and other artists during and after World War II. General questions of cultural migration and cultural transfer to be thematized. P/NP or letter grading.

56. Figures Who Changed World. (5). Lecture, three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that reso- nated internationally. Use of version of “great man” model of history to move beyond such models in its understanding of how, exactly, intellectual currents actually ferment change in world. P/NP or letter grading.

57. Hollywood and Germany. (5). Lecture/screenings, five hours; discussion, one hour. Examination of images of Germany generated by Hollywood, cultural/historical interface between Hollywood and Germany, and contemporary critiques of long-standing relationship between these countries. Discussion of how and why cultural stereotypes are generated and maintained, and why film is a uniquely powerful tool in ideological discourse. P/NP or letter grading.

58. Knights and Ladies, Sex and Power at Medie- val Court. (5). Lecture, three hours; discussion, one hour. Introduction to culture of high medieval court, one of great achievements of European Middle Ages. P/NP or letter grading.

59. Holocaust in Film and Literature. (5). Lecture/screenings, five hours; discussion, one hour. History of Holocaust and its present memory through examination of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.

60W. War. (5). Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Reflection on cultural history of war—on its significance from anthropological, cultural, and philosophical perspectives rather than from perspective of political and historical gains and losses. Emphasis on World War I, war in which a new modern age was present and seemed par- ticularly attuned to sense of confrontationalism and scandal in cultural life. Satisfies Writing II requirement. Letter grading.

61A. Modern Metropolis: Berlin. (5). Lecture, three hours; discussion, one hour. Cultural, political, archi- tectural, 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 fortressed mercantile town into global city. P/NP or letter grading.

61B-61C-61D. Modern Metropolis. (5 each). Lecture, three hours; discussion, one hour. Historical ex- ploration of major Central European cities and their cultures. P/NP or letter grading. 61B. Weimar; 61C. Vienna; 61D. Prague.

62W. Man and Machine. (5). Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language. Variations in German culture to challenges presented by technology and science. From Romanticism to critical theory and postmod- ernism, from Schiller, Schopenhauer and Nietzsche to Wolf, strands of German intellectual tradition provide illuminating contrasts to American context. Satisfies Writing II requirement. Letter grading.

570. Origin of Language. (5). Same as Commu- nication Studies M70. Lecture, three hours; discussion, one hour. Theoret- ical and methodological issues surrounding origin of language. Topics include evolutionary theory, evolution of man, how language is organized in brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

88. Upper Division Seminar. (4). Seminar, three hours. Course of variable content limited to topics of current interest and offered whenever staff member is avail- able. P/NP or letter grading.

Upper Division Courses

100. German History and Culture before 1500. (4). Lecture, three hours; discussion, one hour. Taught in English. Study of German culture and society from beginning to 1500 as represented in literature, art, and architecture. P/NP or letter grading.

101. German History and Culture, 1500 to 1914. (4). Lecture, three hours; discussion, one hour. Taught in English. Study of German culture and society as represented in literature, art, music, and architecture from Reformation and invention of printing to start of World War I. P/NP or letter grading.

102. War, Politics, Art. (5). Lecture, three hours; discussion, one hour. Taught in English. Analysis of inter- relationship between political, social conditions, and events 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 Ger- man 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 film from silent 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, two hours; discussion, one hour. 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 and Holocaust, economic recovery, Cold War and division of Germany, reunification, and growth of minority communities? Film discussions enhanced by interactive media. Letter grading.

M105. Tristan, Isolde, and History of Heterosexual- ity. (4). (Same as Gender Studies M119.) Lecture, three hours. Taught in English. German, French, and English versions of Tristan and Isolde story from Middle Ages to 20th century. Emphasis on relation between representation of heterosexual love in each text and contemporaneous ideas about human sexuality. P/NP or letter grading.


M107. Love and Sex in German Literary Tradition. (4). (Same as Gender Studies M108.) Lecture, three hours. Taught in English. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual iden- tity. Letter grading.

108. Nietzsche and Critique of Western Culture. (4). Lecture, two hours; discussion, one hour. Taught in English. Readings that focus on Nietzsche’s cri- tique of Christianity, master/slave dynamic, and recip- rocal relationship between politics and philosophy. German majors required to complete all readings in German. 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 Mendelsohn, 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, Rilke, Kafka, Brecht, Christa Wolf, and others. May be repeated for credit. Letter grading.

111. Thomas Mann, Hesse, Böll, and Grass: German Nobel Prize Winners in English. (4). Lecture, three hours. Taught in English. Survey of Nobel Prize-winning German texts with eye for degree to which these authors’ visions reflect Nobel’s ideals of peace and understanding of human nature. Texts include Die Stadt (Hauptmann), excerpts from Buddenbrooks (Mann), and Siddhartha (Hesse). Viewing of films based on Lost Honor of Katharina Blum and Tin Drum. 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 artifacts 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 and appropriation in literature, film, advertising, and pedagogy. P/NP or letter grading.

115. 19th-Century German Philosophy. (4). Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passivity as the fundamental nature of all things, is one of Germany’s greatest gifts to humanity. Exploration of first half of two-century history of German philosophy—period from Kant to Nietzsche, including Hegel, Kierkegaard, and Marx. Letter grading.

116. 20th-Century German Philosophy. (4). Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passivity 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, from Nietzsche through Habermas, including Heidegger, Gadamer, Jaspers, and Frankfurt School theorists. Letter grading.

117. German Exile Culture in Los Angeles. (4). Lecture, three hours. Taught in English. Cultural and historical exploration of exile as site of creative activity for German writers and other artists during and after World War II. General questions of cultural migration and cultural transfer to be thematized. P/NP or letter grading.

118SL. Between Memory and History: Interviewing Holocaust Survivors. (4). Seminar, two hours; fieldwork, two hours. Strongly recommended requisites: prior experience interviewing Holocaust survivors. Examination of historical value of eyewitness testimony of Holocaust through unique service opportunities that bring students together with survivors. Question of testimony approved from number of perspectives, including legal, historical, and ethical, to examine vexed relationship between history and memory. Examination of survivor testimony through classic memoirs in this course by authors such as Primo Levi’s The Drowned and The Saved and Ruth Kluger’s Still Alive. Through collaboration with Jewish Family Services, 1939 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and undertake collaborative research projects and oral histories. Students also research and curate series of interactive tours through Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4). Lecture, three hours. Enforced requisite or corequisite: course 6. 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. 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, social and spatial 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 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as general linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C238. Letter grading.

150. German Play Production Act I. (5). Lecture, four hours. Enforced requisite: course 3. Taught in German. Introduction to four German plays (readings variable) and to different types of drama and drama theory. Requisite: discussion, and analysis of plays in detail, practice in performing roles in class, and writing of short responses in German. May be repeated for credit. Letter grading.

151. German Play Production Act II. (5). Lecture, four hours. Requisites: courses 3 (enforced), 150. Taught in German. Staging of German play. Students responsible for various aspects of theater production, including acting, directing, set design, costumes, and programs. Intensive pronunciation practice. Two public performances take place at end of term. May be repeated for credit. 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 literary fiction, a focus on writing 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. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literary fiction, with an emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.


155. Advanced German Language through Cultural History and Current Affairs. (4). Lecture, three hours. Requisites: courses 152, 153. Taught in German. Advanced German language course that integrates knowledge of German cultural history to teach complex speaking and writing skills of interpretation, analysis, and criticism. Readings may include selections from Luther, Heine, Freud, and current authors. Students are encouraged to use multimedia presentations. Letter grading.


157. Contemporary German Cinema: Advanced Conversation and Composition. (4). Lecture, three hours. Taught in German. Development of advanced technical and cultural skills and 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 ex-German) culture and history with focus on emphasis of boundary. Examination of different types of boundaries and borders (e.g., physical borders between countries; boundaries created by various cultural ideologies and boundaries of class, race, and gender; boundary between memory and experience), ways in which people cross them, and their reasons for these transgressions. Analysis of films to better understand various cinematic techniques. P/NP or letter grading.

158. Introduction to Study of Literature. (4). Lecture, three hours. Taught in German. Introduction to most important terms and 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.

160. Introduction to German Poetry. (4). Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected dramatic genres (e.g., tragedy, comedy, one-act play, lyric drama, lyric theater, historical drama, etc.), including systematic review of dramatic conventions and forms, diction, imagery, symbolism, and metrics. Letter grading.

161. Introduction to German Drama. (4). Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of narrative prose genres (e.g., short story, novella, fairy tales, etc.), including systematic review of narrative forms, techniques, and styles. Texts selected from both contemporary and earlier periods. Letter grading.

162. Introduction to German Narrative Prose. (4). Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of narrative prose genres (e.g., short story, novella, fairy tales, etc.), including systematic review of narrative forms, techniques, and styles. Texts selected from both contemporary and earlier periods. Letter grading.


165. Introduction to Modern Literature. (4). Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis of selected modern works written between 1890 and 1945, including texts by authors such as Thomas Mann, Kafka, Rilke, Brecht, and others. Letter grading.

166. Introduction to Contemporary Literature. (4). Lecture, three hours. Requisite: course 152 or 153. Taught in German. Analysis and discussion of German, Austrian, Swiss, and ex-GDR literatures from 1945 to present. Examination of writers such as Heinrich Böll, Günter Grass, Günter Dürrenmatt, Eri- ride Jelinek, and Christa Wolf with view to their specific political and cultural context. Letter grading.


171. Goethe's Faust. (4). Lecture, three hours. Enforced requisite; course 152 or 153. Taught in German. Detailed interpretation of Goethe's major work, Part I and II, with emphasis on understanding the significance of the Faust theme in European literature. 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 literature as a means of expressing personal, national, or political identity, gender relations, and commercialization of culture. Letter grading.

175. Intercultural Germany: Literature, Politics, Migration. (6). 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. Taught 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 German and other minority/intercultural writers. Examination of hip-hop minority music and culture as voices in political debates. Exploration of contemporary controversies around Islam in Germany. Reading of several theoretical pieces that examine relationships between immigration, globalization, culture, and identity. P/NP or letter grading.

187. Undergraduate Seminar. (4). Seminar, three hours. Required of all German majors who are candidates for German major (BA and MA). Content varies by instructor and may include advanced work in folklore, film, and German studies. Letter grading.

191A. Variable Topics Research Seminars: 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. Requisites: courses 140 or 141, 152, 153, 158, and four upper division electives required for major. 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.

199. Directed Research or Senior Project in German. (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. Individual contract required. P/NP or letter grading.

Graduate Courses

201A. Bibliography, Research Methods, and Scholarly Writing. (4). Lecture, three hours. Introduction to current state of advanced research and analysis of literary and philological materials, with emphasis on bibliographies and such tools of research as concordances, biographical dictionaries, and electronic archives, literary histories, and special attention to online resources. Practical exercises in analysis of sources, compilation and presentation of bibliographies, and the writing of a paper. 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 to use of contemporary theory in study of medieval texts. continued currently by reading Middle High German although most texts to be read in modern translation. Letter grading.

204. Early Modern German Literature. (4). Lecture, three hours. Selected readings from 1500 to 1700, with introduction to development of German as modern literary language and to literary genres and cultural models. Impact of Thirty Years' War on German literary production and reception in German baroque. Letter grading.


207. 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 to reception of Romanticism and other periods. Letter grading.


210B. 20th-Century Novel to 1945. (4). Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as innovations in narrative technique. Letter grading.

211. Postwar Literature. (4). Lecture, three hours. Study of major works by German-speaking authors writing since World War II. Examination of issues such as identity crises, nationalism, 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.


232. Old High German. (4). Discussion, three hours. Introduction to earliest phases of German literature, with extensive readings in major documents of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.


238. Linguistic Theory and Grammatical Description. (4). Lecture, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, comparison of syntactical 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 German phonology and syntax according to needs and preparation of students enrolled. (e.g., West Germanic problem and classification of Germanic languages, development of Germanic verbal and nominal morphology, proto-Germanic syntax). S/U or letter grading.


257. Seminar: Age of Goethe. (4). Seminar, three hours. Selected topics in literature and culture between 1775 and 1832, with special emphasis on work of Goethe and Schiller as it relates to...
texts such as Hegel’s Phänomenologie des Geistes or as it relates to historical events such as French and American Revolutions. Letter grading.


263. Seminar: Literary Theory. (4). Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor. Letter grading.

M264. Topics in Communicative, Cognitive, and Functional Approaches to Linguistic Analysis. (4). (Same as Applied Linguistics M262.) Seminar, three hours. Development as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Approaches to Foreign Language Pedagogy. (4). Seminar, one hour; discussion, two hours. Issues include development of current theories of second-language acquisition, effects of these theories on language pedagogy, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, and design of syllabi for basic foreign language courses. S/U grading.

496. Teaching with Technology. (4). Seminar, one hour. Students working as teaching assistants to technological resources available to them and demonstration of how to incorporate computer-based assignments into curriculum. Discussion of pros and cons of using different types of material both inside and outside classroom, as well as how technology can be used to create teaching portfolios and interactive learning tools. S/U grading.

596. Directed Individual Study or Research. (4). Tutorial, three hours. To be arranged with faculty member who directs research. Member research report must be filed with department chair. S/U grading.


Yiddish

Lower Division Course

10. From Old World to New: Becoming Modern as Reflected in Yiddish Cinema and Literature. (5). Lecture, three hours; discussion, one hour. Use of media of Yiddish cinema (classic films and documentaries) as primary focal points to examine ways in which one heritage culture, that of Ashkenazic Jews, adapted to forces of modernity (urbanization, immigration, radical social movements, assimilation, and destructive organized anti-Semitism) from late-19th century to present. Exploration of transformational themes in depth through viewing of selected films, readings, research and weekly papers, and in-class discussions. P/NP or letter grading.

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. Use of film as a way 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.

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. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Yiddish. (4). Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4). Tutorial, to be arranged with faculty member who directs study (see department for ID number). S/U grading.

GERONTOLOGY

Interdisciplinary Minor

Meyer and Renee Luskin School of Public Affairs

UCLA

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fax: (310) 206-2381
e-mail: paul@luskinfox.uc.edu
http://luskin.ucla.edu/content/undergraduate-programs

David B. Reuben, M.D., Chair

Faculty Committee

Janet C. Frank, Dr.P.H. (Community Health Sciences)
Michael R. Irwin, M.D. in Residence (Psychiatry and Biobehavioral Sciences, Psychology)
Lenie S. Levy-Stroms, Ph.D., M.P.H. (Social Welfare)
David B. Reuben, M.D. (Medicine)
Theodore F. Robles, Ph.D. (Psychology)
Gary W. Small, M.D. (Psychiatry and Biobehavioral Sciences)
Fernando M. Torres-Gil, Ph.D. (Public Policy, Social Welfare)
Steven P. Wallace, Ph.D. (Community Health Sciences)

Scope and Objectives

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 Ger-
ontology (1) provides a foundation understanding of the current state of science related to human aging, (2) enables students to assess longevity’s potential contribution and challenge to contemporary society, and (3) provides an appreciation of opportunities to contribute, personally and professionally, to a diverse aging society.

Undergraduate Study

Gerontology Minor
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.

Required Upper Division Courses (28 to 32 units)
Gerontology M108, four courses from M104C, M104D, M119O, M119X, M142SL, M150, M165, Psychology 124C, 150, and two courses from Gerontology 195, 199A, 199B.

Students who have completed General Education Clusters 80A with a grade of B or better may petition to have the course applied toward the gerontology core course requirement. Students who have completed General Education Clusters 80CW may petition to have the course applied toward one of the elective requirements.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Gerontology

Upper Division Courses
M104C. Diversity in Aging: Roles of Gender and Ethnicity, (4). (Same as Gender Studies M104C and Social Welfare M104C.) Lecture, four hours. Examination of models and policies of poverty and discrimination, gender and ethnic compositions of American society, and the social, psychological, and economic consequences of inequality for women and minorities and their families.

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. Examination 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 social populations. Weekly seminars organized around key aspects of social gerontology. P/NP or letter grading.

M108. Biomedical, Social, and Policy Frontiers in Human Aging, (5). (Same as Social Welfare M108.) Lecture, four hours. Limited to juniors/seniors. Course of human aging presented in ways that are based on a variety of recent research uses. Usage of conceptual frameworks to increase relevance of aging to students’ lives and enhance their critical thinking—bio-psychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguished by analytic frameworks for understanding interaction between human lives and changing social structures, and allows students to understand how events, successes, and losses at one stage of life can have major effects later in life. Focus on individuals as they age within one particular sociohistorical context. Letter grading.

M119O. Psychology of Aging, (4). (Same as Psychology M119O.) Lecture, four hours. Required: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are pure deterioration. Exploration of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging, (4). (Same as Psychology M119X.) Lecture, three hours. 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 aging in contemporary aging policy. Evaluation of theories developed to account for this knowledge. P/NP or letter grading.

M120. Sex and Aging, (4). Lecture, three hours. Sexuality in aging from psychological, psychobiological, physical, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well-being and human sexual response. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan, (4). (Same as Social Welfare M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

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? How do they live their lives? How do they learn? Is there an opportunity for people with disabilities to grow and develop? How do we make sure all people have access to basic needs like shelter, food, and health care? How are services to people with disabilities provided? How are services to family members provided? What is the current state of knowledge and research in this area? P/NP or letter grading.

M195CE. Community or Corporate Internships in Gerontology, (4). (Formerly numbered 195.) Tutorial, one hour. Limited to juniors/seniors. Internship in applications of gerontology in supervised setting in community agency or business coordinated by Center for Community Learning. Students meet on regular basis with internship coordinator and must submit weekly writing assignments and a final paper at end of term. Eight units of 195CE (or 199) are required for successful completion of Gerontology minor. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Gerontology Advising Office, (310) 206-8966, paul@ipsa.ucla.edu. Letter grading.

199. Directed Research or Senior Project in Gerontology, (4). Tutorial, to be arranged. Requisites: course M108, or GE Clusters 80A and 80B. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Submission of weekly writing assignments and research paper at end of term. Eight units of 199 (or 195CE) required for successful completion of minor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office. Letter grading.

GLOBAL STUDIES

Interdepartmental Program

College of Letters and Science

UCLA
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e-mail: idps@international.ucla.edu
http://web.international.ucla.edu/institute/idsps/globalstudies/

Michael F. Thies, Ph.D., Chair

Faculty Committee
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Elizabeth M. DeLoughery, Ph.D. (English)
Purnima Manekar, Ph.D. (Asian American Studies, Gender Studies)
Saloni Mathur, Ph.D. (Art History)
David L. Rigby, Ph.D. (Geography, Statistics)
William R. Summerville, Ph.D. (History)
Michael F. Thies, Ph.D. (Political Science)
Dominic R. Thomas, Ph.D. (Comparative Literature, French and Francophone Studies)
Robert Trager, Ph.D. (Political Science)
Yunxiang Yan, Ph.D. (Anthropology)

Scope and Objectives
The Global Studies Interdepartmental Program provides undergraduate students with a rigorous interdisciplinary education in the principal issues confronting today’s globalized world. Housed in the UCLA International Institute, Global Studies offers a research-oriented undergraduate major leading to a Bachelor of Arts 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 all around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (re-
riginal and global forms of governance) and below (autonomy and secessionist movement) and from security threats beyond interstate warfare (ethnic conflict, terrorism, civil wars). Markets courses address the interactions among global, regional, national, and subnational economic processes and market dynamics, their effects on different societies with respect to economic growth, poverty, inequality, 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 Study

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.

Global Studies B.A.

Capstone 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 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.

Global Studies Premajor

Incoming freshman and transfer students may be admitted as Global Studies premajors on acceptance to UCLA. Premajor students must apply for the major at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: Global Studies 1 with a grade of B or better; one statistics course selected from Political Science 6, 6R, Statistics 10, or 12; 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 9, Comparative Literature 1C or 20W, 1D or 2D, 4CW or 4DW, Ethnomusicology 25, Gender Studies 10, Geography 3, 6, History 2B, World Arts and Cultures 20, or 33, (2) one governance and conflict course selected from Environment 12, History 10B, 22, Political Science 10, 20, 30, 50, 50R, or Sociology 1, and (3) one markets course selected from Economics 1 or 2. The remaining two courses, taken from two separate categories, may be selected from the three courses above. One course from the following list may be applied toward the culture and society category: Asian 70C, Asian American Studies 10, Chicana and Chicano Studies 10B, French 14, 14W, History 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies 50C, Russian 90B, 90BW, Spanish 42, or 44. A minimum grade-point average of 3.25 is required in these courses.

Transfer Students

Transfer applicants to the Global Studies premajor 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 at http://www.admissions.ucla.edu/prospect/adm_trchtm for up-to-date information regarding transfer selection for admission.

The Major


After successful completion of Global Studies 100A and 100B, 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.

During their senior year, students must also take four capstone courses—Global Studies 191 and 194 in Fall Quarter, followed by 199A and 199B. Courses 199A and 199B culminate in a capstone senior thesis of 35 to 50 pages.

Honors Program

To qualify for departmental honors, students must (1) have a grade-point average of 3.5 or better in upper division courses in the major; (2) have a cumulative GPA of 3.25 or better, and (3) complete Global Studies 199B with a grade of A– or better. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior thesis.

Global Studies Minor

The Global Studies minor offers students a multidisciplinary curriculum in the humanities and social sciences through which they can explore the complex and multifaceted interconnections that characterize the contemporary world. The minor is designed to complement and enrich studies in their major.

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 9, Asian 70C, Asian American Studies 10, Chicana and Chicano Studies 10B, Comparative Literature 1C or 20W, 1D or 2D, 4CW or 4DW, Ethnomusicology 25, French 14, 14W, Gender Studies 10, Geography 3, 6, History 2B, 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies 50C, Russian 90B, 90BW, Spanish 42, 44, World Arts and Cultures 20, or 33, (b) governance and conflict—Environment 12, History 10B, 22, Political Science 10, 20, 30, 50, 50R, or Sociology 1, and (c) markets—Economics 1 or 2.

Global Studies

Lower Division Courses


2. International Diplomacy and Foreign Affairs. (2). Lecture, 15 hours; discussion, 15 hours. Limited to high-achieving 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 field 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.

Upper Division Courses

100A. Globalization: Governance and Conflict. (5). Lecture, three hours; discussion, one hour. Enforced requisites: course 100B. Corequisites: courses 110A, 110B, and 110C, limited to senior Global Studies majors. Topics include trade, colonialism, and the development of global norms into truly global economy. P/NP or letter grading.

100B. Globalization: Culture and Society. (4). Lecture, three hours; discussion, one hour. Enforced requisites: course 100A. Investigation of circulation of peoples, goods, and media to examine interactions of globalization with local culture and formation of global cultures through practices and processes of globalization. Letter grading.

110A. Globalization in Context. (5). Lecture, six hours. Requisites: 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.


160. Selected Topics in Global Studies. (4). Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

188A-188B. Special Studies in Global Studies. (4-4). Seminar, three hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to serve as undergraduate course assistants in global studies courses. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. May not be applied toward major requirements. May be repeated for credit. P/NP 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 undergraduate students to serve as undergraduate course assistants in global studies courses. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. 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.
Health Policy and Management

Upper Division Courses

100. Introduction to Health Policy and Management. (4). Lecture, four hours; discussion, one hour. Preparation of 4 units of social sciences. Structure and function of American healthcare system; issues and forces shaping its future. P/NP or letter grading.


140. Foundations of Maternal and Child Health. (4). Seminar, four hours. Introduction to foundation 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 childhood’s life; application of life course health development framework to understand health disparities and applications for policy and practice. Letter grading.

197. Individual Studies in Health Services. (2 to 4). Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B. Health Systems Organization and Financing. (4-4). 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.

M202. Qualitative Research Design and Methodology for Indigenous Communities. (5). (Same as American Indian Studies M202 and Nursing M221). Seminar, three hours. Introduction to some key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on American Indian cultures, societies, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and special considerations for conducting research in American Indian country. Design of research and exploration of feasibility of researching topics. Letter grading.

203A-203B. Applied Microeconomics. (4-4). Lecture, four hours. Requisite: Mathematics 3A or 3B or 31A. Course 203A is requisite to 203B. 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 for three terms. Requisites: course M236, Economics 201A, 201B, 201C. 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. In Progress (M204A, M204B) and letter (M204C) grading.
205. Pharmaceutical Policy. (4). Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, price setting in industry, health insurance coverage for pharmaceuticals, and research and development process. Letter grading.

206. Healthcare for Vulnerable Populations. (4). Lecture, three hours; view of health services issues associated with organization, financing, and delivery of healthcare services to vulnerable populations within domestic and international contexts to gain understanding of economic, political, social, and cultural issues that lead to disparities in access, quality, and cost of healthcare services that lead to vulnerability for particular population groups. Introduction to strategies that can address these health disparities. Analysis and development of policy and management options that serve needs of vulnerable populations within healthcare system. Letter grading.

207. Current Topics in Health Services: Practice and Operations. (4). Seminar, two hours. Required of Dr.PH. students. Examination and discussion of current health services topics in various practice sectors, with focus on organizational leadership and direction in addressing these issues. Journal club discussions of relevant scientific literature, presentations of dissertation work by advanced Dr.PH. students, and interactive lectures/discussions by professionals to organize operational, practice, and healthcare management. S/U or letter grading.


215A. Healthcare Quality and Performance Management. (4). Lecture, four hours. Preparation: completion of summer internship requirement. Management and operations of individual units and organizations of American healthcare system. Exploration of ways in which they actually function and how to ensure their quality and effectiveness. Examination of roles, actions, and activities of current leaders and how these challenges can best be met on day-to-day basis. Emphasis on applied practice with intent being improvement of student managerial competencies and on development of conceptual tools to manage complex processes in delivery of health services, primarily directed to improving effectiveness, efficiency, performance, and quality of healthcare services. Quality improvement processes as performance measurement, rapid cycle testing, breakthrough series, and interorganizational collaboration benefit quality and productivity. Letter grading.

215B. Applied Methods for Improvement/Implementation Science. (4). Lecture, four hours. Emphasis on current leadership qualities. Emphasis on case studies and applications so students gain skills in improvement project design and implementation. Analysis of cases, individual improvement projects, and class discussions. Students to apply this knowledge to organizational examples. Letter grading.


217. Evidence-Based Medicine and Organizational Change. (4). Lecture, three hours. Requisites: courses 200A, 200B, M422. Designed for graduate students in public health or other health sciences disciplines. Participation of students in critical review and discussion of selected papers dealing with course topics, including clinical trials, meta-analysis, small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for health policy. Letter grading.


220. Tobacco: Prevention, Use, and Public Policy. (4). Lecture, four hours. Designed for juniors/seniors and graduate students. Study of tobacco use and its health consequences, including interplay of historical, biological, economic, and philosophical forces with knowledge, attitudes, and behavior choices of individuals. Introduction to prevention interventions, cessation interventions, anti-tobacco efforts, improvement initiatives and pragmatic clinical trials. Concurrently scheduled with course C121. Letter grading.

225A-225B. Health Services Research Design. (6-6). Lecture, four hours; laboratory, two hours. Letter grading.

225A. Introduction to scope of health services research, conceptualization and design of health services research, choice and assessment of measurement methods, and methods for generalizing results of improvement and implementation studies involving direct data collection. Broad overview to conducting health services research, alternative research paradigms, building conceptual models of health services research, designing and testing measures, and direct data collection issues of survey and questionnaire design, sampling, community engagement, and research ethics. Letter grading.

225B. Emphasis on methods for generalizing results of improvement and implementation studies involving direct data collection. Broad overview to conducting health services research, alternative research paradigms, building conceptual models of health services research, designing and testing measures, and direct data collection issues of survey and questionnaire design, sampling, community engagement, and research ethics. Letter grading.

225C. Research Methods for Improvement/Implementation Science. (4). Lecture, four hours. Emphasis on current leadership qualities. Emphasis on case studies and applications so students gain skills in improvement project design and implementation. Letter grading.

226A-226B. Readings in Health Services Research. (2-2). Seminar, two hours. Limited to departmental M.S. and Ph.D. students. Introduction to research literature in health services research, reading literature on key conceptual models, classic empirical studies, and current research illustrating cutting-edge methods or findings. Letter grading.

227A. Special Topics in Health Services: Current Research Issues. (2-4). Seminar, two hours. Limited to departmental M.S. and Ph.D. students. Introduction to research literature in health services research, reading literature on key conceptual models, classic empirical studies, and current research illustrating cutting-edge methods or findings. Letter grading.

227B. Special Topics in Health Services Seminar Series. (2-4). Seminar, two hours. Letter grading.


232. Leadership Capstone Seminar. (4). Seminar, four hours. Preparation: completion of summer internship requirements. Designed for graduate students completing their master’s training in health management and health policy. Examination of leadership and management in healthcare 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 characteristics of successful leaders. Students evaluate their own leadership style and identity opportunities to further develop their leadership abilities. Letter grading.


235. Law, Social Change, and Health Service Policy. (4). Lecture, four hours. Preparation: two upper division political science or sociology courses. Required: course 100. Legal issues affecting policy formulation for environmental, preventive, and curative health service programs. S/U or letter grading.


237A. Special Topics in Health Services Research Methodology. (6). Lecture, four hours; discussion, two hours. Requisite: Biostatistics 200A. Approaches to conceptualization, modeling, design, literature reviews, sampling, data collection, and research. Development of health services research proposal required. Letter grading.

237B. Special Topics in Health Services Research Methodology. (6). Lecture, four hours; discussion, two hours. Requisites: Biostatistics 200A and 200B or 201. Introduction to multivariate analysis techniques in health services research. Model specification and estimation, regression diagnostics, variable transformations, instrumental variables. Application of statistical software using large-scale national database. Letter grading.

237C. Issues in Health Services Methodologies. (6). Lecture, four hours; discussion, two hours. Requisites: courses 237A, 237B, Biostatistics 200A, 200B (or 201). Designed for doctoral students. Intended to train students in statistical and economic methods underlying health services research, with focus on practical application of advanced regression models. Letter grading.
planning, and other aspects of healthcare systems administration courses, two upper division social science topics. Alternative conceptual models to traditional private insurance, course goes into more detail on that market failure and various policy tools that can be developed specific options for reforming features of policy. Letter grading.

249S. Introduction to Science of Implementing Evidence-Based Practice. (4) Seminar, four hours. Requisites: courses 200A, 200B. Designed to provide basic understanding of evidence-based practice. Through series of didactic teaching and interactive case discussions, introduction to integrated framework to understand key issues related to implementing evidence-based practice and set of tools to apply to evidence-based practice. Letter grading.

249T. Cancer Prevention and Control Research. (2) Seminar, three hours; outside study, nine hours. Examination of effects of managed care on health and 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 scale of competitive healthcare markets. Letter grading.

254. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Psychology M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

260A-260B. Community-Based Participatory Health Research: Methods and Applications. (4-4) Lecture, one hour; discussion, one hour; fieldwork, two hours. Limited to clinical scholars fellows. Mentoring of field experiences with introduction to critical issues in conducting research in community settings. Review of assignments, interventions, and evaluation designs for community settings and discussion of practical issues in partnering with communities. Letter grading.

269. Healthcare Policy and Finance. (4) (Same as Public Policy M269.) Seminar, three hours; outside study, nine hours. Experiential learning in 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 scale of competitive healthcare markets. Letter grading.

M249Q. Editorial Board Apprenticeship. (2) (Same as Psychiatry M210). Seminar, two hours. Designed for postdoctoral fellows and advanced Ph.D. students. Participation in peer review process for academic journal. Discussion of collaborative role 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.

240R. Cancer Prevention and Control Research. (2) Seminar, two hours. Limited to graduate students. Presentations by faculty members and outside speakers, as well as students, on research topics in cancer prevention and control as well as career development opportunities such as grant writing, scientific review process, research funding, and other academic issues. Letter grading.

270. Health Reform: Policy, Research, and Implementation Issues. (4) (Same as Psychology M270.) Lecture, three hours; discussion, one hour. Limited to graduate students. Overview of political and ethical roots of health policy and healthcare management. Re-visited of editor on suitability for full review. S/U or letter grading.

280. Health Reform: Policy, Research, and Implementation Issues. (4) Seminar, three hours. Requisites: courses 200A, 200B. Limited to second-year M.P.H. and doctoral students. Analysis of components of major federal healthcare reform legislative initiative to identify important policy, research, and implementation issues. Application of principles of stakeholder analysis to understand how and why this legislation was constructed and how it passed Congress. Conducting of policy analyses of selected components through completion of written assignments. Examination of respectfully of federal and state government in implementing and administering various components. Identification of significant implementation and administrative challenges at federal and state levels and development of possible strategies for addressing those challenges. Letter grading.

M285. Ethical Theory and Applications in Public Health. (4) (Formerly numbered M249L.) (Same as Community Health Sciences M249L.) Lecture, four hours. Requisites: courses 200A, 200B. Limiting introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to healthcare professionals, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

296. American Political Institutions and Health Policy. (4) (Same as Community Health Sciences M296.) Lecture, four hours. Requisites: courses 200A, 200B. Limiting introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to healthcare professionals, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M287. Politics of Health Policy. (4) (Same as Community Health Sciences M287.) Lecture, three hours; discussion, one hour. Limited to graduate students. Overview of public health and the policy-making process. Understanding of politics of health policy process, including political processes of federal, state, and local government in implementing and administering healthcare policies. 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 on understanding history of disparities in U.S. to understand current state of disparities, and on evaluating effectiveness of ongoing strategies to eliminate them, such as increasing insurance coverage and delivery of culturally competent healthcare. Examination of sociological models that explain disparities in healthcare providers, administrators, and analysts. Fun- damental 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 underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

M220. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4). (Same as Community Health Sciences M227.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means of preventing adverse health and development outcomes, emphasizing childhood vulnerabilities, evaluation of impact of information technology on practice of public health. Examination of sociological models that explain disparities in healthcare and evaluation and expansion on these models. Letter grading.

M229. Community Health Promotion and Policy. (4). (Same as Community Health Sciences M229.) Seminar, two hours. Emphasis on understanding history of disparities in U.S. to understand current state of disparities, and on evaluating effectiveness of ongoing strategies to eliminate them, such as increasing insurance coverage and delivery of culturally competent healthcare. Examination of sociological models that explain disparities in healthcare. Recom- mended requisite: coursework 251. Introduction to field of public health promotion, with emphasis on examination of impact of information technology on practice of public health. Entire process, from systems conceptualization and design to project planning and development to systems implementation. Letter grading.


M411. Issues in Cancer Prevention and Control. (4). (Same as Community Health Sciences M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and character- istics of cancer epidemic, cancer control goals for nation, and strategies to address smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

M415. Organizational Analysis. (4). Seminar, four hours. Introduction to important questions and perspectives relevant to understanding organizational behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives important for understanding delivery system change. Examination of empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges of studying organizations in healthcare/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective. (4). (Same as Community Health Sciences M420 and Social Welfare M520.) 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 adoles- cents with developmental disabilities or chronic ill- ness and their families. Letter grading.


M423. Advanced Consultation Theory and Methods for Health Services. (4). Lecture, four hours. Designed for departmental M.S. and Ph.D. students. Familiarity with current theoretical concepts in evaluation to gain skills in development of information design and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to variety of settings both within and outside healthcare environments, and critical thinking about advantages and disadvantages of potential evaluation designs. Examination of shift in field of evaluation over past decade from principal focus on program efficacy criteria, to more direct stakeholder engagement, and complex and accountable care organizations, measurement, implementation, and impact of these models. Letter grading.

M426. Child and Family Health Program Community Leadership Seminar. (2). (Same as Community Health Sciences M426.) Seminar, two hours. Designed for graduate students. Examination of charac- teristics and specific evaluation methodologies and designs that have emerged (e.g., pragmatic and adaptive trials). Letter grading.


M430. New Developments in E-Health and Internet. (4). Lecture, four hours. Introduction of new technolo- gies in healthcare e-commerce/Internet/new media area, with emphasis on general background, review of applications, and discussions of organizational and managerial issues dealing with successful use and implementation of technologies. S/U or letter grading.

M431. Organizational Behavior and Human Re- sources in Healthcare Organizations. (4). Lecture, four hours. Managerial skills and behaviors applied to components of organizations at several levels: indi- vidual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features of organizations stressed as applications are presented. Letter grading.


M434. Building Advocacy Skills: Reproductive Health Focus. (4). (Same as Community Health Sci- ences M434.) Seminar, three hours. Recommended requisite: one prior health policy course such as Commu- nity Health Sciences 247 or Health Policy 235. De- signed for School of Public Health graduate and doc- toral students. Skills-building course to develop com- petency in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to processes, including policy analysis and development of resources neces- sary for advocacy. Identification of advo- cacy 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.


M437. Legal Environment of Health Services Manage- ment. (2). Lecture, two hours. Requisites: courses 200A, 200B. General survey of legal aspects of healthcare services management, such as liability, govern- ance, agency, informed consent, medical malprac- tice, and contracts. S/U or letter grading.

M438. Issues and Problems of Local Health Adminis- tration. (4). Lecture, three hours. Preparation: one health services course. Requisites: course 100, Epi- demiology 100. Overview of administrative issues currently faced by local health departments, including providing public health programs during fiscal con- straint, quality improvement, interagency relationships and partnerships, and political and public inter- actions. Letter grading.

M439. Dental Care Administration. (4). Lecture, three hours. Preparation: one health services course. Requisites: courses 200A, 200B. General survey of legal aspects of healthcare services management, such as liability, govern- ance, agency, informed consent, medical malprac- tice, and contracts. S/U or letter grading.

M440. Healthcare Information Systems and Tech- nology. (4). Lecture, four hours. Preparation: comple- tion of summer internship. Provides strong foundation in health information technology (HIT), data standards, those working in healthcare, with emphasis on development of knowledge and skill to plan, manage, and imple- ment HIT systems in healthcare delivery organizations with particular focus on clinical and business applications, evolving HIT spaces. Background and evolution of HIT; how it is planned, implemented, and managed; and how it can be productively used by healthcare delivery organiza- tions, external research organizations, regulatory or- ganizations, providers, and patients/consumers. Fun- damentals of technology, electronic medical records (EMR), electronic health records (EHR), personal health records (PHR), meaningful use, interoperability, and health information exchanges (HIE). Letter grading.


M441. Health Analytics: Identifying, Collecting, and Analyzing Big Data in Healthcare. (4). Lecture, four hours. Use of technology for data collection and pro- cessing, as well as data delivery from patients to healthcare providers. Exploration of sources of big data in healthcare, including electronic medical record data warehouses,
social media databases, wireless biosensors, and patient-provider-portal metadata. Review of associated analytic techniques for each data source, including data acquisition and management from data warehouses, hands-on data manipulation in Excel and Access, natural language processing of medical record and social media text, cloud networking for wireless biosensors, and queuing models for evaluating patient throughput. Letter grading.


M446-M449B. Child Health, Programs, and Policies. (4-4). (Same as Community Health Sciences M436A-M436B). Lecture, four hours. Requires: course 100. Course M449B is prerequisite to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.


501. Cooperative Program. (2 to 8). Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master's degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

595. Directed Individual Study or Research. (2 to 8). Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward M.P.H. and M.S. 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.

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.
their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in the Department of History at UCLA are designed to bring about an understanding of the forces that have shaped the many cultures of this country and the world. UCLA has one of the largest, most distinguished, and most diverse history faculties in the country. Its main emphasis is on the many aspects of social history, but intellectual, cultural, and political history are also strongly represented.

Of all undergraduate majors, History is probably the most flexible and far-reaching. Leading to a Bachelor of Arts 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 Ph.D. degree in History (a master’s degree may be earned in the process of completing Ph.D. requirements). Traditionally, the M.A. and Ph.D. 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 Study

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate, then design and complete a research project using these primary sources and literature.

History B.A.

Capstone Major

The History Department’s undergraduate program consists of 16 courses in history (six lower division—the Preparation for the Major, including the premajor requirements; 10 upper division—the Major). Each course must be taken for a letter grade.

Preparation for the Premajor and Major

Required for the Premajor: Three courses, including two in Western civilization (History 1A, 1B, 1C) or two in world history (courses 20, 21, 22), and one course from 96W or 97A through 97O.

After completing the three courses with a minimum grade-point average of 2.0, students should petition to enter the major at the undergraduate counselor’s office in 6248 Bunche Hall.

Required for the Major: Three additional lower division history courses.

Transfer Students

Transfer applicants to the History major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one semester or two quarters of history of Western civilization or world history, one historical practice course, and three additional lower division history courses.

Transfer credit for the premajor courses is subject to department approval. Transfer students should consult the undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adn.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: At least 10 upper division history courses, including (1) two courses in U.S. history, (2) two courses in non-Western history from the same area (i.e., Latin America, Asia, Near East, Africa), (3) two courses in European history or in history of science, and (4) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper or lower division courses, but majors are required to take a minimum of 10 upper division history courses.

There is no language requirement for the major; however, students wishing to enter the honors program or planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Advanced Placement Credit in History

Effective Fall Quarter 2002 for entering freshmen, no course credit is granted for any AP Examination.

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.

History of Science and Medicine Minor

The History of Science and Medicine minor is designed for students who wish to augment their major, perhaps in one of the sciences, with a series of courses that analyze the historical growth, impact, and significance of science and medicine in Western and world culture. The minor consists of a choice of lower division courses that expose students to overviews of science and medicine in large time periods or to specific thematic concerns. Upper division courses offer more focused and often smaller classes that explore crucial episodes or areas with a more rigorous and sophisticated content and methodology.

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 the minor adviser in 6265 Bunche Hall.

Required Lower Division Courses (12 units): Three courses from History 2B, 2D, 3A through 3D, Philosophy 8.

Required Upper Division Courses (20 units): Five courses from Anthropology 182, History 179A through 180C, any upper division Honors College courses with history of science or history of medicine content, Neurobiology M168 (or Physiological Science M168), Philosophy 124.

Each year certain undergraduate seminars in the History 191 sequence are designated as applicable to the upper division minor requirements. Students may also petition to have other relevant courses, including those from other departments, applied toward the upper division requirements.

At least one upper division course, to be selected and approved in consultation with the undergraduate or faculty adviser, must involve writing a research or interpretive paper of significant length and intellectual content. Transfer credit for courses may be subject to departmental approval.

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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gassaa/library/pgmrqintro.htm. In many cases, more
Graduate Degrees

The Department of History offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in History.

History

Lower Division Courses

1A-1B-1C. Introduction to Western Civilization. (5-5-5). Lecture, three hours; discussion, two hours. Broad, historical study of major elements in Western heritage from world of Greeks to that of 20th century, designed to further beginning students' general education, introduce them to ideas, attitudes, and institutions basic to Western civilization, and acquaint them, through reading and critical discussion, with representatives of movements and writings of enduring interest. P/NP or letter grading.

1A. Ancient Civilizations, Prehistory to circa A.D. 843. (1B. Circa A.D. 843 to circa 1715. (1C. Circa 1715 to Present. 1AH-1BH-1CH. Introduction to Western Civilization (Honors). (5-5-5). Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 1A, 1B, 1C. P/NP or letter grading. 1AH. Ancient Civilizations, Prehistory to circa A.D. 843 (Honors); 1BH. Circa A.D. 843 to circa 1715 (Honors); 1CH. Circa 1715 to Present (Honors).

2A. Power, Ethics, and Technological Change. (4). Lecture, three hours; discussion, two hours. Examination of historical and theoretical relationships between ethical behavior, corporate power, and technological change. Topics include engineering practice and business profits, gender and engineering cultures, production and safety, Japanese and engineering and computer ethics. Historical case studies include Three Mile Island, Chernobyl, the DC-10, and Challenger Disaster. P/NP or letter grading.

2B. Social Knowledge and Social Power. (6). Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation to these practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledges differ in agrarian, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C-2D. Religion, Occult, and Science. (5-5). Lecture, three hours; discussion, two hours. P/NP or letter grading.

2C. Mystics, Heretics, and Witches in Western Traditions. 1000 to 1600. (5). Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medieval and early modern Europe. Manner in which men and women sought to explain, order, and escape terrors of their lives by embracing transcendental religious experiences and dreaming of deliverance. Equips students with intellectual tools necessary for thinking analytically, empathetically, and critically about fascinating human phenomena identified as religious, such as sacred acts, places, words, and persons in their varied historical contexts. Development of student skills in critical thinking, and making persuasive arguments based on historical evidence. P/NP or letter grading.

2D. Science, Magic, and Religion, 1600 to Present. (5). Lecture, three hours; discussion, two hours. Science and religion as historical phenomena that have evolved over time. Examination of earlier mind-set before 1700 when into science fitted elements that came eventually to be seen as magical. How Western cosmologies became "disenchanted." Magical tradition transformed into modern mysticisms. Political implications of these movements; science in totalitarian setting such as "total war" during the Cold War. Discussion of anti-science and cult movements. P/NP or letter grading.

3A-3B-3C. Introduction to History of Science. (5-5-5). Lecture, three hours; discussion, two hours. History majors may not apply these courses on science general education requirements. P/NP or letter grading.

3A. Scientific Revolution. (5). Lecture, three hours; discussion, two hours. Survey of beginnings of physical sciences, involving transformation from Aristotelian to Newtonian cosmology, mechanization of natural world, rise of experimental science, and origin of scientific societies. P/NP or letter grading.

3B. History of Science from Newton to Darwin. (5). Lecture, three hours; discussion, two hours. In this period science became part of Enlightenment campaign for reason and of culture of an Industrial Revolution. New social science and evolutionary debates about science and religion demonstrate its rising intellectual and practical significance. P/NP or letter grading.

3C. History of Modern Science, Relativity to DNA. (5). Lecture, three hours; discussion, two hours. Ranging from startling new physics of relativity and the quantum, and of nuclear weapons, to molecular reductionism in biology and campaigns for statistical objectivity, examination of involvement of science in technological, social, and political changes of the 20th century. P/NP or letter grading.

3CH. Introduction to History of Science: History of Modern Science, Relativity to DNA (Honors). (5). Lecture, three hours; discussion, two hours. Honors course parallel to course 3C. P/NP or letter grading.

3D. Themes in History of Medicine. (5). Lecture, three hours; discussion, two hours. Examination, through illustrated lectures and focused discussion of primary sources, of five important themes in development of modern medicine: nature of discovery, emergence of surgery, epidemics, conception and treatment of insanity, and use of medical technology. P/NP or letter grading.

4. Introduction to History of Religions. (5). Formerly numbered 4.) (Same as Religion 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 critically about fascinating human phenomena identified as religious, such as sacred acts, places, words, and persons in their varied historical contexts. Development of student skills in critical thinking, and making persuasive arguments based on historical evidence. P/NP or letter grading.

5. Holocaust: History and Memory. (5). Lecture, three hours; discussion, two hours. Historical context of Holocaust, perpetrators and victims, and changing efforts to come to terms with this genocide. Exploration of forces that led to Holocaust, including emergence of scientific racist, anti-Semitism, and machinery of modern state. Consideration of debates about implementation of genocide, including significance of gender and sexuality, relationship between war and genocide, meanings of resistance and culpability, and political and philosophical implications of Holocaust. Exploration of how genocide of European Jewry was intertwined with targeting of other victims of Nazi rule, including Roma, Slavs, black Germans, disabled, homosexuals, and opponents of National Socialism. P/NP or letter grading.

6. Southeast Asian Crossroads. (5). Lecture, three hours; discussion, two hours. Overview of a region united by its wet tropical environment and diversity of great religions: Buddhism, Hinduism, and political and cultural influences of the West after World War II, is one of crucial events of modern history. Examination of origins of the Middle East. P/NP or letter grading.

7. History of Middle East. (5). Lecture, three hours; discussion, two hours. Overview of history of a region united by its wet tropical environment and diversity of great religions: Buddhism, Hinduism, and political and cultural influences of the West after World War II, is one of crucial events of modern history. Examination of origins of the Middle East. P/NP or letter grading.
ments in Africa since 1800, with focus on slave trade, imperialism and colonialism, and nationalism and independence. Attention to different ideologies (nationalism, socialism, apartheid), rural/urban tensions, changing role of women. Four papers required. Satisfies Writing II requirement. Letter grading.

11A-11B. History of China. (5-5). Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 11A, 1B, 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. 1000 to 1950. Survey of later history of China—evolution of characteristic Chinese institutions and modes of thought from 1000 to 1950. Focus on political, intellectual, and economic aspects of late empires and rise of modern China in contemporary era. 11AH-11BH. History of China (Honors). (5-5). Lecture, three hours; discussion, two hours. Honors sequence parallel to courses 11A, 1B, P/NP or letter grading. 11A. To 1000 (Honors); 11BH. 1000 to 1950 (Honors).


20. World History to A.D. 600. (5). Lecture, three hours; discussion, two hours. Outline of world history from rise of Islam to start of Industrial Revolution, structured around a broad chronological narrative of salient developments. Use of thematic and comparative approaches, with certain recurring themes and institutions that modulate from culture to culture. Reading of variety of contemporary accounts to look at how peoples perceived cultures outside their own. P/NP or letter grading.

21. World History, circa 600 to 1760. (5). Lecture, three hours; discussion, two hours. Outline of world history from rise of Islam to start of Industrial Revolution, structured around a broad chronological narrative of salient developments. Use of thematic and comparative approaches, with certain recurring themes and institutions that modulate from culture to culture. Reading of variety of contemporary accounts to look at how peoples 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 18th century. Themes and institutions that modulate from culture to culture. Reading of variety of contemporary accounts to look at how peoples perceived cultures outside their own. P/NP or letter grading.

88GE. Sophomore Seminar: Special Topics in History. (5). Seminar, four hours. Requisite: designated GE lecture course; see Schedule of Classes for specific requisite lecture and seminar topics. Designed for sophomores/juniors. Exploration of aspects of lecture topic through readings, images, and discussions. P/NP or letter grading.

94. History Research Methods and Strategies. (1). Seminar, one hour. Development of competency with identifying, locating, critically evaluating, and using information in print, electronic, and other formats. Flow of information in variety of disciplines, how to approach research problems systematically, how to access and evaluate information in variety of formats, and how to formulate effective searches and search in electronic databases and on Internet. P/NP or letter grading.

96W. Introduction to Historical Practice. (5). Seminar, three hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for former course 99W. Introduction to study of history, with emphasis on theoretical history and research methods. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1). Seminar, one hour. Corequisite: History 97A through 970. Limited to history majors. Exploration of topics covered in courses 97A through 970 in greater depth through supplemental readings, discussions, or other activities. P/NP grading.

97A-97O. Introduction to Historical Practice: Variable Topics. (4 each). Seminar, three hours. Discussion classes of no more than 15 students. Introduction to study of history, with emphasis on theoretical history and research methods. Variable topics courses; consult Schedule of Courses for topics to be offered in specific term. P/NP or letter grading. 97A. Ancient History; 97B. Medieval History; 97C. European History; 97D. American History; 97E. Near Eastern History; 97F. East Asian History; 97G. Science and Technology; 97H. African History; 97I. Jewish History; 97J. Middle Eastern History; 97K. Indian History; 97L. World History.

Upper Division Courses

100. History and Historians. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of historical processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.

101. Topics in World History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes from world historical perspective. May be repeated for maximum of 16 units with topic and instructor change. P/NP or letter grading.

101A-C. Variable Topics: Interdisciplinary Studies. (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Not open for credit to students with credit for courses C101A-C. Designed for juniors/seniors. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C208A-C208B. P/NP or letter grading.

102. Explorations in Psychoanalysis and History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Art of psychological and historical interpretation; assessment of recent writings in field of psychohistory. P/NP or letter grading.

M102A-M102B. Historical Archaeology. (4-4). (Same as Anthropology M115A-M115B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors; P/NP or letter grading. M102A. World Perspective. Historical archaeology requires appreciation of historical sources, archaeology, and material culture in world terms, with exploration of breadth of discipline both in Old World and Americas. M102B. American Perspective. Emphasis on historical archaeology in North America, particularly to some practical applications. P/NP or letter grading.

M103A-M103B. Ancient Egyptian Civilization. (4-4). (Same as Ancient Near East M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not requisite to M103B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M103A. Chronological discussion of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until 332 B.C.

M104A. History of Ancient Mesopotamia and Syria. (4). (Formerly numbered M104.) (Same as Ancient Near East M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Palestine, from Late Uruk to neolithic-Babylonian period. P/NP or letter grading.

M104B. Caucasian History. (4). (Same as Ancient Near East M104B.) Lecture, three hours. Designed for juniors/seniors. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennia B.C.E., with focus on rich cultural and political diversity between the region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonian History. (4). (Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors/seniors. Overview of Babylon and cultural history of region from late 3rd millennium B.C.E. to invasion of Cyrus in 539 B.C.E., with focus on history and archaeology of region, urban structure, literature, and legal practices. P/NP or letter grading.

M104D. Assyrian History. (4). (Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors/seniors. Overview of Assyrian cultural history from its origins to end of Neo-Assyrian period (circa 612 B.C.E.), with focus on rise, decline, and fall of Neo-Assyrian Empire, which at its peak ruled ancient Near East from Zagros to Egypt. P/NP or letter grading.

105A-105B-105C. Survey of Middle East, 500 to Present. (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background and circumstances of rise of Islam, creation of Islamic Empire, and its development. Rise of Dynastic Successor States and Modern nation States. Social, intellectual, political, and economic development. P/NP or letter grading. 105A. 500 to 1300. 105B. 1300 to 1700. 105C. 1700 to Present.

106. Premodern Islam. (4). (Formerly numbered M106A) (Same as Religion M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examining of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

107A-107B-107C. Armenian History. (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 107A. Armenia in Ancient and Medieval Times. 107B. Armenia in Cilician Kingdom through Period of Foreign Domination and National Stirrings. 11th to 19th Centuries; 107C. Armenia in Modern and Contemporary Times, 19th and 20th Centuries. Armenian question and genocide, national republic, Soviet Armenia, and dispersion.

107D. Introduction to Armenian Oral History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Uses and techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. P/NP or letter grading.

107E. Caucasus under Russian and Soviet Rule. (4). Lecture, three hours; discussion, one hour (when scheduled). Survey of political, economic, social, and cultural history of Caucasus region since 1801. Georgian, Armenian, and Azerbaijan response to Russian and Soviet rule; national question and Soviet national policies. P/NP or letter grading.

108A. History of North Africa from Islamic Conquest. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, and religious history of Islamic West (Maghrib) from Muslim conquest in 7th and 8th centuries C.E. until 1578. P/NP or letter grading.
108B. History of Islamic Iberia. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.


109B. History of Israeli-Palestinian Conflict, 1861 to Present. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of origins of Arab-Israeli dispute from mid-19th century through founding of state of Israel and expansion/flight of three quarters of million Palestinians from their homes. Exploration of social history of Palestine up to Zionist colonization, origins of Zionism and Palestinian nationalism, varieties of Zionism, Zionism and colonialism, seminal events and their consequent symbolic connotations Great Revolt and 1948 nakba (disaster), construction of national consciousness of Israel, 1967 and its aftermath, intifada, and redefinition of conflict as result of Oslo. P/NP or letter grading.

M110A-M110B-M110C. Iran Civilization. (4-4-4). (Same as History M110A-M110B-M110C and Iranian M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). History of ancient Iran from rise of Elam to end of Sa-sanian Empire. 1st millennium B.C. to 13th century A.D. Change from Elam civilization and Medes, persians, aemenid, Arsacid, and Sassanian Empires. Empires on ancient Iran, but may be offered for early Islamic period, P/NP or letter grading.

111A-111B. Topics in Middle Eastern History. (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for maximum of 16 units topic and/or instructor change. P/NP or letter grading. 111A. Premodern. Examination of major issues in history of Middle East. 111B. Early Modern. Examination of Islam in Ottoman period (1453 to 1823); relationship between history and literary imagination and view of history. Examination past and present; scholarly debate on urban history of early-modern Middle East; introduction to corpus of theories (world economy paradigm) through discussion of Ottoman port cities. 111C. Modern, Middle East underwent widespread social, economic, and cultural changes during 19th century that propelled society, at least portions of society and aspects of its social/cultural life, in entirely new direction. Examination of those changes to understand exactly what modernity meant for region.

112A. History of Ancient Mediterranean World. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 112A. Survey of history of ancient East from earliest times to foundation of Persian Empire. 112B. History and institutions of Greeks from their desire to death of Alexander. M112C. History of Ancient Mediterranean World: Field Studies. (4.) Lecture, five hours. Intensive on-site study of history and culture of ancient Rome from founding of city to conversion of Christianity. Part of UCLA Summer Travel Program. P/NP or letter grading.

112D. History and Monuments of Ancient Greece: Field Studies. (4.) Fieldwork, three hours. Enforced corequisite: course 112B. Examination of history, art, and monuments of ancient Greece through daily lectures and field work to museums and archaeological sites. Part of UCLA Summer Travel Program. P/NP or letter grading.

112E. History and Monuments of Rome: Field Studies. (4.) Formerly numbered 112E.) Fieldwork, five hours. Enforced corequisite: course 112B. Examination of history, art, and monuments of ancient Rome through daily lectures and field walks to museums and archaeological sites. Field trip outside Rome to Pompeii, Hadrian's Villa, Ostia Antica, Ostia. Reception of ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

113A-113B. History of Ancient Greece. (4-4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 113A. Rise of Greek City State: Rise of Greek City State: 9th century B.C. to 5th century B.C. 113B. Classical Period. Clash between Athens and Sparta, consequent rise of Macedonia, and aftermath of Alexander the Great.

114A-114B-114C. History of Rome. (4-4-4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 114A. Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic developments of 1st century B.C. to 4th century A.D. 114B. From Death of Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic developments of 1st century B.C. to 4th century A.D. 114C. From Time of Constantine to Crisis of Western Roman Empire. Early Christian period treated in more detail, supplemented by survey of social and economic developments of 1st century B.C. to 4th century A.D.

115. Topics in Ancient History. (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 credit with approval of instructor change. P/NP or letter grading.


M116C. Power and Imagination in Byzantium. (4.) Same as Classics M170C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of relations of authority and intelligentsia in high Byzantine culture. Topics include: criticism of emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

119A-119B. Medieval Europe. (4-4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Basic introduction to Western Europe from Latin antiquity to age of discovery, with emphasis on medieval use of Greco-Roman antiquity, history of manuscript book, and growth of literacy. P/NP or letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

119C. Medieval Civilization: Mediterranean Heartlands. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Western Mediterranean Europe, social/economic/cultural within political framework, including its relation with other cultures. P/NP or letter grading.

119D. Topics in Medieval History. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special topics in history of Middle Ages, including religion in society, justice and law, politics of war and diplomacy, economic upheaval, and religious reform. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

120A-120B. East-Central Europe. (4-4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 120A. Early East-Central Europe, 600 to 1400. 120B. Late East-Central Europe, 1400 to 1848. 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. 120C. East-Central Europe in Transition, 1898 to 1945. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. State-socialism and Soviet domination collapsed in East-Central Europe in 1989. Analysis of cause and consequence of collapse, as well as road of transformation in seven (now 12) countries of region: international circumstances and domestic political, social, and economic processes. Ideology of transition versus reality of democratization, marketization, and privatization; free choice versus deterministic factors. Scenarios for future. P/NP or letter grading.

120D. Film and History: Central and Eastern Europe, 1945 to 1989. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Postwar Nagymaros and Eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films to explore life under state socialist modernization dictatorship. P/NP or letter grading.

121A-121F. History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

121A. Renaissance and Reformation, 1450 to 1660. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reorganization of power, new forms of representation, and discourse about rule and obedience in Europe from mid-15th through 16th century. Popular culture; peasant society; resthasing of religion and power. P/NP or letter grading.

121B. Baroque Culture and Absolutist Politics, 1600 to 1715. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reorganization of power, new forms of representation, and discourse about rule and obedience in Europe from mid-15th through 16th century. Popular culture; peasant society; resthasing of religion and power. P/NP or letter grading.

121C. Old Regime and Revolutionary Era, 1715 to 1815. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Enlightenment 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. Bourgeois Century, 1815 to 1914. (4.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Restoration politics, 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. Era of Total War, 1914 to 1945. (4.) 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 nationalism and cosmopolitanism. P/NP or letter grading.
122A-122F. Cultural and Intellectual History of Modern Europe, (4 each). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development and end of post-capitalist, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

125C. 20th-Century Germany. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of aspects of Dutch (and on occasion Belgian) history from medieval period to period after World War II, with emphasis on political, social, and cultural changes discussed through investigations of urban history, agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor movements. Course 131A is generally requisite to 131B. Hirsch.

125D. History of Low Countries. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of aspects of Dutch (and on occasion Belgian) history from medieval period to period after World War II, with emphasis on political, social, and cultural changes discussed through investigations of urban history, agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor movements. Course 131A is generally requisite to 131B. Designed for juniors/seniors. Integration of important topics of European history, with emphasis on specific topic within broad framework. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M133A-M133B. History of Women in Europe, (4-4). (Same as Gender Studies M133A-M133B.) Lecture, three hours, discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in 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 toleration in medieval Europe, impact of syphilis, birth of courtesan, regulation in 19th-century Europe, white slavery scare, and contemporary global sex trade. Readings include novels, primary sources, and testimony by sex workers. P/NP or letter grading.

134B-134C. Economic History of Europe. (4-4). Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 127B or 128B. Designed for juniors/seniors. Russian 90A or 119. Designed for juniors/seniors. First phase of second half of century and rise of European economic powers and their allies and clients in Europe, Asia, and Latin America.

121A. Age of Silver in Spain and Portugal. (4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

123B. 1815 to 1945. Changing patterns of warfare and diplomatic attempts to contain Great Power rivalries; wars of national unification; imperialism; shifting balance of power and alliances; origins, course, and effects of two World Wars. 123C. Cold War. Relations of West, Soviet Union, and world from 1945 to 1991. Origins, development of power-political, military, and ideological confrontations between superpowers and their allies and clients in Europe, Asia, and Latin America.

123A, 1830 to 1918. Netherlands and Belgium, Dutch Republic in 17th and 18th centuries, Low on political and cultural history. Topics include Middle Dutch (and on occasion Belgian) history from medi-

122A. 15th Century. Renaissance cultural and intellectual history of Europe. Central themes include comparative history of ideas, theory and practice of art and architecture, civic and religious humanism, religious experience, and new cultural genres of history and philological scholarship.


123A-123B-123C. War and Diplomacy in Europe. (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

124A-124B-124C. History of France, (4-4-4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.


124C. Making of Modern France, 1871 to Present. From oligarchy to democratic bureaucracy in two wars and three republics.

125A. Baroque and Enlightenment Germany. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years' War to end of Napoleonic Wars. Consideration of absolutism as political system, its effects on baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, dynamics of gender in civil society and political life, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period of French Revolu-
overseas colonies, 17th-century political upheavals and their impact on political and socioeconomic structures. 136B. Making of Modern Britain, 1715 to 1867. Political, economic, social, and cultural history of Britain from Hanoverian revolution in politics to advent of mass democracy in mid-Victorian era. Themes include social change under pressure of industrialization, emergence of first British Empire, loss of America, shifts in religious and social position. 136C. Modern Britain since 1832.

137A-137B. British Empire since 1783. (4-4, Lec., 3 hrs.; dis., 1 hr. when scheduled). Designed for juniors/seniors. Political and economic development of British Empire, including evolution of colonial nationalism, development of commonwealth ideas, and changes in British colonial policy. P/NP or letter grading.


138B. Revolutionary America, 1760 to 1800. (4). Lec., 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 framework, and development of capitalist economy. P/NP or letter grading.

138C. U.S. History, 1800 to 1850. (4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. 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.

139A. U.S., Civil War and Reconstruction. (4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. Rise of sectionalism, antislavery crusade; formation of Confederate States; war years; political and social reconstruction. P/NP or letter grading.

139B. U.S., 1875 to 1900. (4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. American political, social, and institutional history in period of great change. Emphasis on altering concepts of role of government and responses to that alteration. P/NP or letter grading.

140A-140B-140C. 20th-Century U.S. History. (4-4-4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. P/NP or letter grading. 140A. 1900 to 1928. Political, economic, intellectual, and cultural aspects of American development to 1928. Historical development of American intellectual, and cultural aspects of American democracy. 140B. Since 1928. Political, social, and diplomatic developments that have shaped U.S. since 1960. 141A-141B. American Economic History. (4-4). Lec., 3 hours; discussion, 1 hr. when scheduled. Designed for juniors/senior. P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces: producers, consumers, and government in promoting or impeding effective change in American economy from 1790 to 1910. During this period technical skeleton of modern industrial structure was formed. Why and how American economy evolved into dual economy, characterized by center of firms large in size and influence and periphery of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy. Great Depression and present day. Theoretical approaches to studying relationships between macro and micro developments in economy and on growing interdependence between U.S. and world economy from 1910 to present.

142A. Intellectual History of U.S. (4-4-4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. Principal ideas about humanity and God, nature and society, that have been at work in American history. Sources of these ideas, their connections with one another, their relationship to American life, and their expression in great documents of American thought. P/NP or letter grading.

142C. History of Religion in U.S. (4, Formerly numbered 142C). (Same as Religion M142C). Lec., three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Consideration of religious ideas and experiences in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on relating developments in religion to other aspects of American history. P/NP or letter grading.

142D. American Popular Culture. (4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Recommended requisites: courses 138B, 139C. Designed for juniors/senior. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse groups of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. 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/NP or letter grading.

143A-143B. Constitutional History of U.S. (4-4). Lec., three hours; discussion, 1 hr. when scheduled. Designed for juniors/senior. Examination of development of U.S. Constitution, its interpretation, and changes over time. Emphasis on historical dimensions of culture change, in 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/NP or letter grading.

144A. America in World. (4, Lec., 3 hrs.; discussion, 1 hr. when scheduled). Designed for juniors/senior. Development of U.S. exceptionalist approach to national self-understanding by rethinking crucial 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. Consideration of transnational flows of people, ideas, goods, wealth, and politics, as well as comparative perspectives on all these things and more. P/NP or letter grading.

144C. Critical Issues in U.S.-Philippine Relations. (4). (Same as Asian American Studies M144C, Asian American Studies M144D). Lec., three hours; discussion, 1 hr. when scheduled. Designed for juniors/senior. 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 survival of deaf community and development of deaf identity over time. P/NP or letter grading.

145A. Great Documents of American Thought. (4). (Same as American Sign Language M120.) Lec., three hours; discussion, 1 hr. when scheduled. Designed for juniors/senior. History of Native Americans from contact to present, with emphasis on historical dimensions of culture change, Indian political processes, and continuity of Native American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading. 145A. 1750 to 1860. (Same as Gender Studies M145A. Lec., three hours; discussion, 1 hr. when scheduled). Designed for juniors/senior. History of Native Americans from contact to present, with emphasis on historical dimensions of culture change, Indian political processes, and continuity of Native American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading. 149A-149B. North American Indian History. (4-4). Lec., three hours; discussion, 1 hr. when scheduled. Designed for juniors/senior. History of Native Americans from contact to present, with emphasis on historical dimensions of culture change, Indian political processes, and continuity of Native American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading.
M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4). (Same as African American Studies M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of musical genre known as funk that emerged in its popular form during late 1960s and reached popular high point, in late 1970s. Funk music in its various forms, such as gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offer students unique window into recent African American history. P/NP or letter grading.

M150E. African American Nationalism in First Half of 20th Century. (4). (Same as African American Studies M150E.) Lecture, three hours; discussion, one hour (when scheduled). Critical examination of African American search first half of 20th century for national/group cohesion through collectively built institutions, associations, organized protest movements, and ideological self-definition. P/NP or letter grading.

M151A. History of Chicano Peoples. (4). (Same as Chicana and Chicano Studies M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through 17th, 18th, and 19th centuries, with special emphasis 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 classes, class analysis, social, economic, and labor conflict, ideas, domination, and resistance. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M151B. History of Chicano Peoples. (4). (Same as Chicana and Chicano Studies M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/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 and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical and policy issues affecting community. Within framework of domination and resistance, discusses structures, 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/NP or letter grading.

M151C. Understanding Whiteness in American History and Culture. (4). (Same as Chicana and Chicano Studies CM151C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of whiteness in American society. Readings and discussions to explore why it is important, and explore its significance to historical construction of race class in American history. Letter grading.

M151D. Chicana Historiography. (4). (Same as Chicana and Chicano Studies M151D and Gender Studies M151D.) 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 such as Spanish Conquest, Mexican Period, American Conquest, Mexican Revolution, and Chicano Movement to excavate untold stories about women’s participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

M151E. Latino Metropolis: Architecture and Urbanism in Americas. (4). (Same as Chicana and Chicano Studies M151E and Urban Planning M151E.) Lecture, three hours; discussion, one hour (when scheduled). Introduces to history of architecture and urbanism in Americas, from fabled cities of Aztec empire to barrios of 21st-century Los Angeles and Miami. Emphasis on major cities in Latin America experience and uses of architecture and city planning to forge new social identities rooted in historical experiences of conquest, immigration, nationalization, and revolution. P/NP or letter grading.


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 seniors/juniors. Economic, social, intellectual, and political development of California from earliest times to present. P/NP or letter grading.

155. History of Los Angeles. (4). (Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Social, economic, cultural, and political development of Los Angeles and its environs from its founding to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles’ place among American urban centers. P/NP or letter grading.

156. Topics in U.S. History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Examination of specific historical themes and/or major issues in U.S. history. P/NP or letter grading.

157A. Early Latin America. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Survey of Latin American history from conquest to independence, with emphasis on society, culture, and ethnic aspects. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Survey of social and cultural conditions in colonial 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. P/NP or letter grading.

159. Latin America in 19th Century. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Intensive analysis of economic, social, and political problems of Latin America nations from their independence to around 1910. P/NP or letter grading.

160A. Latin American Elitlore. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Elitlore (defined as oral or non literate intellectual knowledge involving leaders’ conceptual and perceptual life history views) in contrast to folklore (followers’ traditional or popular views). Elitlore genres include oral history, literature, and cinema. P/NP or letter grading.

160B. Mexican Revolution since 1910. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Examination of concept of porfirismo and explanation of profound structural changes 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 America History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. 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.

163A. Modern Brazil. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Selected topics in political, economic, social, and cultural development of Brazil, with emphasis on modernist/marxist structural change from 1850 to present. Discussions, films, slides, and guest speakers supplement and complement lectures. P/NP or letter grading.

163B. Brazil and Atlantic World, 1500 to 1822. (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 Argentina from colonial to present time. Emphasis on 19th-century development of national state and 20th-century formation of mass society. P/NP or letter grading.

164B-164Z. Topics in African History. (4 each). (Formerly numbered M164A-164Z.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Economic, social, 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.

164D. Africa and Slave Trade. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparatory: one prior course in African history at UCLA. Designed for seniors/juniors. 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.

166D. Africa and Diaspora in Global and Comparative Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. African history at UCLA. Designed for seniors/juniors. Emphasis on modernization and struggle for change, influenced by its global context—Africa, American, European, Islamic, and Asian. P/NP or letter grading.

167. Violence, Race, 1945 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparatory: one prior course in African history at UCLA. Designed for seniors/juniors. 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 countries and in independent states of Africa. Neocolonialism, experiments in development, apartheid in South Africa, ideological conflict in contemporary Africa, and Africa in world affairs since 1957. P/NP or letter grading.

165. Topics in African History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Examination of specific historical themes and/or major issues in African history. 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. Letter grading.


167A. History of Northeast Africa. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Ethiopia, Sudan, and Somalia in regional context of north-east 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, 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. Survey of history of central Africa from earliest times, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

169A-169B. Thought and Society in China. (4–4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of classical and premodern times of Chinese culture from 1000 BCE to 1600 CE. P/NP or letter grading.

170A. Culture and Power in Late Imperial China. (4). Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11A. Elite and popular expressions of Chinese cultural life examined in readings and lectures. Focus on diversities of thought in classical legacy and their evolution under impact of Buddhism to 1000. Emphasis on intersections between intellectual life, public culture, and economic conditions. 169B. Since 1870. Interactions between inhabitants of southern Africa since 1870. 169B.

170B. Selected Topics in Contemporary History. (4). Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: courses 11A, 11B. Designed for juniors/seniors. Analysis of relocations of power and cultural expressions of dominance and resistance in late imperial China (1000 to 1700), with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of 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.

170C. 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 relocations of power and cultural expressions of dominance and resistance in late imperial China (1000 to 1700), with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of 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.

170D. 20th-Century China. (4). Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Political, economic, social, and cultural development of China from 1912 to 1949, including nationalist and communist revolutions, internal strife, and 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.

171A.变量 Topics in Japanese History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from prehistory to present. P/NP or letter grading. 171B. Ancient, Prehistory to 1600; 172B. Early Modern, 1600 to 1868; 172C. Modern, 1868 to Present. 173A. Japanese Popular Culture. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics in 18th, 19th, and 20th-century Japanese history, including legacy of premodern samurai in postmodern comic books, Americanization of popular culture, cultural synthesis in photography, and relationship of monster movies to postwar politics. P/NP or letter grading.

171B. 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 representations of topics such as women and new political order (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1960s to 1990s). P/NP or letter grading.


171D. Indo-Islamic Interactions, 700 to 1750. (4). Formerly numbered 174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became Pakistan, Bangladesh, and Afghanistan. Topics include social, political, and cultural history. P/NP or letter grading.

171E. Indo-Islamic Interactions, 1750 to 1950. (4). Formerly numbered 174E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interplay of factors that, from Christian missionaries to Islamic madrasa schools and colonial rebellions, gave shape to multifaceted Muslim reformation in context of colonial modernity. P/NP or letter grading.

174F. Gandhi and Making of Modern India. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examines biography of Mahatma Gandhi, known world over as prophet of nonviolence and principal architect of Indian independence movement. Gandhi was also significant social and cultural critic of Western modernity, interpreter of Indian civilization, staunch supporter of Indian syncretism, voluminous writer, and forerunner, not only in India, but of many great social and cultural movements the world over. Focus on Gandhi’s ideas 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 feminism, Dalit (low-caste), Marxist, 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.

M174G. Indian Identity in U.S. and Diaspora. (4). (Formerly numbered M173B.) Same as Asian American Studies M172A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduisms 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.

175A. Cultural and Political History of Contemporary South Asia. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Foci include intense period of Indian and/or instructor change. P/NP or letter grading.

175B. 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 representations of topics such as women and new political order (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1960s to 1990s). P/NP or letter grading.

175C. Special Topics in Contemporary Indian History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in history of contemporary India. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

176A-176B. History of Southeast Asia. (4–4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 176A. Early History of Southeast Asia. Political and cultural history of peoples of Southeast Asia from earliest times to about 1815. 176B. Southeast Asia since 1815. History of modern Southeast Asia, with emphasis on expansion of European influence in political and economic spheres, growth of nationalism, and process of decolonization.

176C. Philippine History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Philippine societies from Spanish conquest through independence. Emphasis on questions of identity under colonialism, understanding Revolutions of 1896 and 1898, and politics of Philippine nationalist discourse. Readings include introduction to major issues in Philippine historiography and literature. P/NP or letter grading.

176D. Premodern Vietnamese History. (4). Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of history of people of Vietnam to beginning of colonial period (circa 1880), covering political, social, economic, cultural, and religious developments. Consideration of impact of Vietnamese past on modern age. P/NP or letter grading.
(biblical, rabbinic, medieval, and modern) paired with service learning in Jewish social justice organizations that work with diverse populations in Los Angeles communities. P/NP or 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.

191A. 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 comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

198B. Honors Research in History, (4). Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Continued development of honors thesis or comprehensive research project under direct supervision of faculty mentor. May be repeated for maximum of 16 units. Individual contract required. In Progress grading (credit to be given only on completion of course 198C).

198C. Honors Research in History, (4). Tutorial, to be arranged. Requisite: course 198B. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

Graduate Courses


202A-202B. Topics in World History. (4 each). Seminar, three hours. Individual intensive study and writing assignment that examine issues related to internship site using historical methods. May not be applied toward major requirements. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP grading.

205A-205B. History Department Professional Development Seminars. (1-1). Seminar, one hour. Course 205A is requisite to 205B. Limited to history doctoral students. Introduction to issues in professional development of the Ph.D. program. In Progress (205A) and S/U (205B) grading.

206A-206B. Seminars: Near East. (4-4). Seminar, three hours. Course 206A is requisite to 206B. In Progress (206A) and letter (206B) grading.

208A-208B. Seminar. (202B) grading.


211A-211B. Seminars: Armenian History. (4-4). Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.


215A-215B. Seminars: Byzantine History. (4-4). Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4-4). Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.
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Christina M. Duvall Schetter, Ph.D. (Psychology)
Erikki I. Huhhtamo, Licensiate in Philosophy (Design | Media Arts)
Daniel H. Lowenstein, LL.B. (Law)
Jeffrey H. Miller, Ph.D. (Microbiology, Immunology, and Molecular Genetics)
Teófilo F. Ruiz, Ph.D. (History, Spanish and Portuguese)
Shelley I. Salamensky, Ph.D. (Theater)

Scope and Objectives
The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. The collegium encourages animated discussion among students, as well as between students and professors. It seeks to promote scholarly exchange across the major disciplines in the University. And it offers small classes and individual attention.

Undergraduate Study
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. An Honors Collegium quarterly brochure, that gives detailed course descriptions of current offerings, is available at http://www.honors.ucla.edu/hchome.html.

Honors Collegium
Lower Division Courses
1. Plague Culture. (5) Seminar, three hours. Study of episodes and metaphors of plague in Western culture from ancient to modern age. AIDS, Topics in plague culture, ancient tragedy, Black Death, realist novel, high aesthetic metaphors of plague, Nazi propaganda, existential and absurdist thought, postwar cinema, contemporary American theater, and modern science and medicine. P/NP or letter grading.
2. Comparative Genocide. (4) Lecture, four hours; discussion, one hour. Social comparative study of genocide, combining theoretical concepts with case studies (such as Armenia, the Holocaust, American Indians, Uganda under Amin and Obote, etc.). P/NP or letter grading.
3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Available psychotherapies, educational media, and drugs can alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of available tools that claim neurological 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. Representing Cleopatra: History, Drama, and Film. (5) Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. P/NP or letter grading.
5. Energy Issues: Before and Now. (5) Seminar, three hours. Review of physics and chemistry of concepts of energy, history over ages of discovery and use to products in this area, including use of fossil fuel, and discussion of current energy issues, including alternative energies. P/NP or letter grading.
6. Saint and Heretic: Joan of Arc and Gilles de Rais. History and Myth. (5) Seminar, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. P/NP or letter grading.
7. Visual Communication and Scientific Principles. (5) Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in art/humanities-related disciplines. New ways in which science can be visualized, using tools, techniques, and media that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and media, and art students learn how to apply their skills to topics they might not usually address. P/NP or letter grading.
8. Postmodern Culture. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as postmodern era. Art criticizes master narratives of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of knowledge, media creativity, and globalization in industry and society. Satisfies Writing II requirement. Letter grading.
9. 11W. Postmodern Culture. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as postmodern era. Art criticizes master narratives of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of knowledge, media creativity, and globalization in industry and society. Satisfies Writing II requirement. Letter grading.
10. Sacred Form: Literature and Poetry in India from Bronze Age to Precolonial Times. (4) Seminar, three hours. Explores cultural and literary development in India from early religious poetry (prior to 1000 B.C.) to broad range of literary styles and—
verse religious and philosophical movements through classical, medieval, and premodern period. P/NP or letter grading.

14. Interconnection of Science and Society. (5) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of societies, evolution of revolutionary ideas as agents of change, and of interdisciplinary and selected contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. Acting Myth. (4) Seminar, three hours. Interdisciplinary approach to literature and acting through study of texts and mythologies from variety of Indo-European and Near Eastern sources; students learn acting techniques in directed scenes from the texts. P/NP or letter grading.


17. Art, Entertainment, and Social Change. (5) Seminar, three hours. Designed for College Honors students. Program students. Exploration of arts and entertainment industry on such aspects of social change as environmental movements, politics and elections, economy, local politics, and community life.

18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

20. What Is This Thing Called Science?: Nature of Modern Science. (5) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Study of early and middle 20th-century’s attempt to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odysseys. (5) Seminar, three hours. Designed for College Honors students. Greek and Chinese classics have in common two modes of heroism: one romantic and the other a realist, or empirical, view of human nature. Both modes are associated principally with men motivated by piety and honor. Interrogation of these traditional constructions of heroic, particularly corollary of courage and violence. Readings include Wuthering Heights by Emily Bronte, and The Odyssey by Homer. Journey to West by Anthony Yu, Tripmaster Monkey by Maxine Kingston, and Ignorance by Milan Kundera. P/NP or letter grading.

23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in Its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance today in 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/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Summer Program participants. Exploration of interdisciplinarian dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relationship, healthcare sites and circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.


34W. Construction and Migration of Knowledge: Rhetoric and Media for Information Age. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Print and electronic genres, both mainstream and alternative, through study of rhetorics of popularization and of canonization. Former defines what happens when esoteric knowledge travels to nonspecialist reader; later explains how ephemera becomes institutionalized. Satisfies Writing II requirement. Letter grading.

35. Scientific Method: Critical Inquiry into Question of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presume to answer question of whether or not there is intelligent life in the universe but rather uses this question as a 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/NP or letter grading.

36. 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 homeland, incessantly form basis of conflicts between people and nations. Investigation of what home means through characters and authors of the theory surrounding notions of space, place, longings, belonging, exile, and return, and through lighter vibrant works of literature, film, and performance. P/NP 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 archetypal story. Course does not presume to answer question of whether or not there is intelligent life in the universe but rather uses this question as a 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/NP or letter grading.

42. Ecology: The Quest for a More Perfect Society. (5) Seminar, three hours. Study of major utopian writings from Thomas More’s classic text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.


51. Music and Society. (5) Seminar, four hours. Mind’s use of extramusical gestures need not require. Analysis of Western art music, with focus primarily, but not exclusively, on music of late-18th through early-20th centuries through multiple analytical frameworks: sociological, historical, political, and musical. P/NP or letter grading.

55. Culture and History of Utopias. (4) Seminar, three hours. Study of major utopian writings from Thomas More’s classic text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.

57. Language, Performance, and Culture. (5) Lecture, three hours. Mixture of lecture and discussion on topic of language and its relationship to performance and culture in 19th and 20th centuries. Study of theorists such as Sausureau, Wittgenstein, Stanley Cavell, 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.

58. Literature and Culture of the American South. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of historical imagination and themes expressed in such writers as William Faulkner, Allen Tate, Flannery O’Connor, Richard Wright, and Zora Neale Hurston; in Civil War and WPA/FSA photography; and in Southern rhetoric and political commentary. Satisfies Writing II requirement. Letter grading.

63W. Nabokov and Reading Minds. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Designed for College Honors students. Examination of three works by Vladimir Nabokov, Russian-American writer, teacher, translator, lepidopterist, and composer of chess problems. Nabokov’s eclectic writings lend themselves well to precepts of cognitive criticism—way of understanding world through relationship between literacy and thought. Reading and writing about art and science built into course. Satisfies Writing II requirement. Letter grading.

64. Neuroscience and Psychology of Art and Biology of Aesthetics. (5) Seminar, three hours. Interdisciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is produced by brain and can be understood in scientific and psychological phenomenon. P/NP or letter grading.

70A. Genetic Engineering in Medicine, Agriculture, and Law. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for Life Sciences 3, 4, former Microbiology 7, or Molecular, Cell, and Developmental Biology 70. Historical and scientific study of genetic engineering in medicine, agricul-
tury, and law, including examination of social, ethical, and legal issues raised by new technology. P/NP or letter grading.

70AL. Culture Discovery Laboratory. (5) Seminar, three hours; laboratory, five hours. Recommended requisite: course 70A. Laboratory work in genomics research and seminar discussion that apply experimental concepts and techniques taught in course 70A. P/NP or letter grading.

71. Cross-Cultural Approaches to Media History and Culture. (5) Seminar, three hours. Examination of media, media history, and media culture from cross-cultural perspective, one that demands redefinition of media and understanding of art in cross-cultural context. P/NP or letter grading.


77. Greeks and Persians: Ancient Encounters from Herodotus to Alexander. (5) Seminar, three hours. Designed for College Honors students. Examination of interaction of and interaction between Greeks and Persians in antiquity, from origins of Achaemenid Empire through its conflicts with Greek world of Mediterra-
nian, to Alexander’s defeat of Darius III. Consideration of ways in which they affected later history. Near Eastern versus Greek testimonia, and art and archaeo-
logical evidence of these two civilizations. P/NP or letter grading.

78. Science and Religion from Copernicus to Dar-
win. (4) Seminar, four hours. Designed for Col-
lege Honors students. Relationship of religion and sci-
ence in West by focusing on leading scientists such as Galileo, Newton, and Darwin. Each one dealt differ-
ently with broad discussion of religion, based on faith and revelation, and science founded on experi-
ence and reason. Dialog was and is constant one. P/NP or letter grading.


tice. (6) Seminar, three hours; fieldwork, four hours. Designed for College Honors students. Special eco-
nomics or mathematics preparation not required. Theory and practice of managing financial health, al-
waying for broad discussion. Picture of variables affecting economy and practical hands-on look at personal finance, including budget-
ging, debt, insurance, investing, and purchasing. Examination of financial issues through three principal standpoints: psychology of finance, historical perspective of finance, and socioeconomic perspective of finance. P/NP or letter grading.

81. Environmental Change in Comparative Perspec-

tive: History, Doctrine, Culture. (5) Lecture, two hours; discussion, two hours. Exploration of philosophical and metaphysical beliefs of Eastern Christianity, com-
paring and contrasting Eastern churches to those that dominate in the West and examining how Eastern Ortho-
dox outlook has developed within broader Judeo-
Christian tradition. P/NP or letter grading.

82. Community and Labor Development from Group to Community. (4) Lecture, three hours; labor day. Introduction to practical applications of community development and outreach efforts in Los Angeles area, with projects from Community Outreach Part-
nership of School of Public Policy and So-
cial Research. P/NP or letter grading.

83W. Politics and Rhetoric of Literature. (6) Sem-
inar, four hours; writing laboratory, two hours. En-
forced requisite: English Composition 3 or 3H or En-
glish as a Second Language 56. Examination of rela-
tionship among politics, rhetoric, and literature in writing of literature from classical times to the present, broadening into general discussions of developmental political discourse in Western thought, particularly conflict between self and state, between ideology and the practical business of living. Satisfies Writing II re-

4. Conflicts between Languages. (5) Seminar, three hours. Introduction to potentially conflict-ridden language situations in three countries abroad and dis-
cussion of various aspects of minority languages in the U.S. P/NP or letter grading.

86. Psychology of Fear. (5) Seminar, three hours; fieldwork, one hour. Examination of phobias, including inquiry into reactions precipitated by intense fear, examination of structures and processes of irrational fears, and discussion of courage and fear reduction strategies. P/NP or letter grading.

Upper Division Courses

101A. Student Research Forum. (2) Lecture, one hour; workshop, two hours. Corequisite: course 99. Designed to promote broad and deep understanding of university research, including plenary lectures on research and workshops on grant writing, Internet searches, research abstracts, and laws and regula-
tions governing research. P/NP grading.

101B. UCLA Graduate Science Journal. (2) Seminar, two hours. For students on editorial board of annual UCLA Undergraduate Journal, in-
cluding study of writing in the sciences and honing of editing and production skills. May be repeated once for credit. P/NP grading.

101C. UCLA Graduate Journal for Hum-
rilites and Social Justice. (2) Seminar, two hours. For students on editorial board of annual Aleph journal of undergraduate research and writing, in-
cluding study of writing in various disciplines and honing of editing and production skills. May be re-
peated once for credit. P/NP grading.

101D. Counseling Multicultural Communities. (2) Seminar, two hours. Study of issues of culture and identity in cross-cultural counseling, including devel-
oping of working model. P/NP grading.

101E. Leading Undergraduate Seminars. (1) Sem-
inar, one hour. Limited to students who have been ac-
cepted into Undergraduate Student Initiated Educa-

tion (USE) program. Learning and exploration of is-
sues that are integral to developing seminars and development of skills to become effective student fa-
cilitators. Practical teaching strategies and tech-
niques, as well as pedagogical, organizational, and technological issues confronted by new instructors. Discussion of key topics, followed by discussion of syllabi that students are developing for their seminars and conducting of micro-teaching presentations. Guest speakers expand on topics that arise from class discussions. May be repeated once for credit. P/NP grading.

101F. Integrity in Research. (2) Seminar, two hours. Limited to students in CARE, HHMI, MARC, and UC Leads programs. Discussion about integrity in re-
search, current thinking in field, and important ethical issues that impact scientific investigation. P/NP grading.

101G. Graduate School Preparation. (2) Seminar, two hours. Limited to AAP students. Designed to help AAP students familiarize themselves with academic disciplines they would like to pursue in graduate school. To guest speakers, and interactive assignments, students learn more about their graduate school options and how to navi-
gerate the process. P/NP grading.

101I. Research Today: Sources, Tools, and Strate-
gies. (2) Lecture, two hours; activity, two hours. Intro-
duction to research process in digital age, offering op-
portunity to develop research skills through explora-
tion of library and Internet resources, exposure to rare and unique materials, experimentation with digital tools, engagement with librarians and other experts, and interactive creative of research project proposal. Designed to provide capstone or thesis experience in humanities or social sciences, P/NP grading.

102. Culture, Media, and Los Angeles. (6) Same as African American Studies M102 and Asian Amer-
ican Studies M102. Culture, Media, and Los Angeles. (6) Same as African American Studies M102 and Asian Amer-
ican Studies M102. Study of African American culture in Los Angeles, four hours; screening two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; is-

ues of representation as they pertain to race, ethnic-
ity, gender, and sexuality. P/NP or letter grading.

104. Scientific Knowledge, Social Change, and Social Policy. (6) Lecture, three hours; laboratory, two hours. Examination, using nanotechnology, of both benefits and risks to economy and society when new technologies are in process of development. P/NP or letter grading.

105. Racial 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, one hour. Designed for ju-

nior/senior College Honors students. Study of four fe-

male cultural archetypes—abscinding 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, Shake-

speare, Dostoevsky. (5) Seminar, three hours. De-

signed for College Honors students. Examination of political order and questions of violence, power, lead-
ership, and ideology through close readings of literary texts, specifically Iliad by Homer, Julius Caesar and Henry IV Part 1 by Shakespeare Kar-

mazov by Dostoevsky. P/NP or letter grading.

108. Transnationalism, Diasporas, and Homeland-

Hostland Politics. (5) Seminar, three hours. Examina-
tion of debates about transnationalism, global migra-
tion, and diaspora communities in the 20th and 21st centuries, with focus on the U.S., including compara-
tive perspective. P/NP or letter grading.

109. Marxist and Post-Marxist Approaches to Cul-

tural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of cul-
ture, 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. Ex-
amination of research and theory on stress and coping, with emphasis on physical and mental conse-
quences of stress and moderators of both social sup-
port and personality in coping strategies. P/NP or letter grading.

M112. Inner and Outer Worlds of Children: Social Policies. (4) Same as Education M112. Seminar, four hours. Practices and analysis of social policies impacting on children. Topics include assessment, social justice and geographical space, temporal ori-
entation, and classical theories of adolescent devel-
oment. Letter grading.

114. Architecture in Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (6) Seminar, three hours. Within last 30 years, body of architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal archi-


cet-—Frank Gehry, Thom Mayne, and Greg Lynn. Site visits and hands-on practice in how to read archi-

tectural plans and how to use computers and mod-

ing in architectural study and design. P/NP or letter grading.

115. Poetry and Society in England, 1588 to 1688: 
Verse, Politics, Religion, and Sexuality from Span-

ish Armada to Glorious Revolution. (5) Seminar, three hours. Designed for College Honors students. Poetry of England in century between 1588 and 1688 through prism of evolving political, philosophical,
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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, Cromwell and New Model Army, Elizabethan foreign policy, Sherwood Forest, agricultural and dietary changes, and printing and publishing conventions. P/N or letter grading.


M120. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Theater M109.) Lecture, four hours; discussion, one hour. Drawing from objects in five major collections at Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophy of age is examined in musical and dramatic performance. Letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Lecture, discussion, one hour. Examination of different ways human beings have developed conceptions of themselves through history from early civilizations through Middle Ages, Renaissance, Reformation, scientific revolution, Enlightenment, and giants 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/N or letter grading.

124. Midwives, Mothers, and Medicine: Perspectives on History of Childbirth. (4) Seminar, three hours. Using examples from history and anthropology, examination of variety of practices associated with childbirth across cultures, addressing such themes as shifting relations among birthing women, midwives, and medical men and cultural meanings of birth. P/N or letter grading.

125. Communities and Conflicts: Theory and Practice of International Conflict Resolution. (5) Lecture, three hours; discussion, one hour. Introduction to theory and practice of conflict resolution, with emphasis on 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/N or letter grading.

127. Citizenship, Leadership, and Service. (4) Seminar, three hours; field project, four to six hours. Examination of citizenship and leadership through engagement in civic practice. Field component involving professional experiences. Required pre or corequisite: P/N or letter grading.

M128SL. Latinos, Linguistics, and Literacy. (5) Same as Applied Linguistics M172SL. Chicana and Chicano Studies M170SL and Spanish M172SL.) Seminar, four hours; field project, four to six hours. Recommended contact with Spanish 1001 or in-depth study of various topics related to literacy, including different definitions of literacy, programs for adult literates, literacy and gender, approaches to literacy (literacy studies, Freire’s liberation pedagogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish speaking adults in adult literacy programs. P/N or letter grading.


133. Practice and Ethics of Ethnographic Fieldwork. (5) Seminar, three hours. Examination of ethics and practices of ethnographic fieldwork. This is not a field methods course but one intended to convey rich knowledge fieldwork can produce in many disciplines and kinds of ethical issues raised in doing fieldwork. P/N or letter grading.

135. Narrative in Mass Communication. (6) (Same as Communication Studies M135.) Seminar, four hours. Examination of narrative as primary function of mass media, beginning with social, psychological, cultural, and rhetorical functions of storytelling and basic elements of narrative, then applying these to study of film, television, and print media. P/N or letter grading.

137. Political Satire: Offensive Art. (5) Seminar, three hours. Study of political satire in political society and variety of genres, including review of socio-political conditions. Use of humor and irony to foster or constrain satire. P/N or letter grading.

140. Dominants and Subordinates in Social Psychology of Privilege and Oppression in Public Education. (6) Lecture, four hours; discussion, one hour; tutoring, three hours. Study of social arrangements and practices of dominance and subordination in contemporary American public school, showing how such entrenched inequalities tend to become permanent. Field component included. P/N or letter grading.


143. Latino Immigration History and Politics. (4) (Same as Chicana and Chicano Studies M124.) Lecture, four hours. Overview of immigration in 20th century, examining social, political, and economic contexts out of which different waves of Latin American immigration to U.S. has occurred. Letter grading.


148. Simulating Society: Exploring Artificial Communities. (5) (Same as Sociology M118.) Seminar, three hours; computer laboratory; one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/N or letter grading.

152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M1580 and Geography M153.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how modern people are coping or failing to cope with similar issues. P/N or letter grading.

154. Interpreting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) (Same as Theater M12.) Lecture, two hours; discussion, two hours. Examination of nature of performance in theory and practice and of social, historical, and cultural contexts in which performance traditions tend to fragment or coalesce, with approximately five designated performances/events required. P/N or letter grading.

157. International Relations of Middle East. (4) (Same as Political Science M132B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors and seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945. P/N or letter grading.


164. Pushkin and Russian National Identity. (5) Seminar, three hours. Examination of history and mythology surrounding Russian ancestry of Russian poet Alexander Pushkin and their effects on national identity, P/N or letter grading.

166. Stories of Cultural Distance and Imposed Assimilation. (5) Seminar, four hours. Study of how fiction, memoir, and film have represented involuntary cultural assimilation and the effects of intimate others, usually family members, coming to terms with their own and their relatives’ cultural identities. P/N or letter grading.

169. Imposture and National Identity. (5) Seminar, three hours. Cross-cultural approach to study of imposture (assumption of false identity) as window through which to examine cultural modernity and national identity. Study of literature, history, and film from Austria, United Kingdom, the U.S., Near East, and South Asia as way of trying to define both hypocrisy and creativity of imposture. P/N or letter grading.

171. Rationality and Emotions. (5) Seminar, three hours. Study of way in which philosophers, social theorists, and cognitive scientists have characterized relationship between rationality and emotions, culminating in emerging consensus that emotions can positively influence rational decision making. Readings range from philosophy of ancient Greeks to writings of contemporary neuroscientists. P/N or letter grading.

173. French Thinkers of Society. (5) Seminar, four hours. In-depth study of distinguishing perspectives of French theorists who wrote on society and its impact on individuals. Theorists include Pascal, Rousseau, Montesquieu, Emile Durkheim, Toqueville, early modern period, contemporary thinkers such as Michel Foucault, Michel de Certeau, and Pierre Bourdieu, and two postmodern theorists, Guy Debord and Jean Baudrillard. P/N or letter grading.

174. American Political Thought from Revolution to Civil War. (5) Seminar, three hours. Exploration of nature of American political thought between Revolution and Civil War. Topics include nature of rights, federalism, institutionalism, and democracy, as well as morality of slavery and legitimacy of succession. P/N or letter grading.

173A. Liberty, Government, and Society in European Thought. (5) Seminar, three hours. Examination of great works of European thought from 17th through 18th century, including works of John Locke, Montesquieu, David Hume, Edmund Burke, and Thomas Paine, with emphasis on legal, social, and moral preconditions of liberty. P/N or letter grading.

173B. Nature, Culture, and Capitalism in European Thought. (5) Seminar, three hours. Course 173A is not requisite to 173B. Designed for College Honors students. Examination of great works of political thought from 17th through early 20th century, including works by Thomas Hobbes, Adam Smith, Jean-Jacques Rousseau, John Stuart Mill, and Max
Weber, with emphasis on intellectual foundations of liberal democracy and capitalism. P/NP or letter grading.

174. Future Impact of Nano in New Technologies. (S) Seminar, four hours. Examination, for general audience, of science behind nanotechnology and way in which nano can potentially influence medical care, environmental, energy issues, military, government and economics. Demonstration of how nano, like current technology, cannot be separated from ethical, cultural, political, and social issues. P/NP or letter grading.

M175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (S) Formerly numbered 175.) (Same as Epidemiology CM175.) 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. P/NP or letter grading.

176A. Context of Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176B. Introduction to some of most important cultural, historical, and political currents in contemporary Arab world, with special focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176A. Introduction to some of most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

177. Biotechnology and Art. (S) 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. (S) Seminar, three hours. Study of U.S. involvement, both covert and overt, in expediency 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. (S) (Same as Communication Studies M169.) Seminar, three hours. Study of tradi- tion of visual arts (painting, graphic art, photography, sculpture) as vehicles for social and political commentary. P/NP or letter grading.

M180. Structure, Patterns, and Polyhedra. (S) (Same as Chemistry M117.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applica- tions from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cagel designs, graph theory, knot theory, and nanotechnology. P/NP or letter grading.

182. From Scientific Revolution to Industrial Revo- lution. (S) Seminar, four hours. Designed for College Honors students. Examination of most important de- velopment in making of Western power and hege- mony: 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, Indus- trial Revolution is shown as also possessing criti- cally important knowledge of components, one sci- entific concept derived from Newtonian science and me- chanics. P/NP or letter grading.

183. Being Human: Identity in Age of Genomics and Neuroscience. (S) Seminar, three hours. De- signed for College Honors students. Identity looked at through complex interplay of nature, nurture, con- sciousness, and philosophy, including exploration of current debates about race and IQ, sex, disability, and intelligence itself. Examination of way in which philos- ophers, anthropologists, psychologists, and biolo- gists have thought about human nature to look for ethical guides about what genetic and neurobiological technologies to pursue or avoid. P/NP or letter grading.

184. Indian and Pakistan: Historic Roots of Con- flict and Prospects for Cooperation. (S) Seminar, three hours. Designed for College Honors students. History of India and Pakistan from demise of British India's Empire in mid-August 1947, with inapt partition of Punjab and Bengal and bifurcated Pakistan, to cur- rent state of both nations and their potential for con- flict and cooperation. P/NP or letter grading.

193A. Journal Club Seminars: McNair Research Scholars. (2) Seminar, two hours; discussion, two hours. Limited to McNair research scholars. Study of key research journals and important research articles in humanities and social sciences. Weekly research reports and presentations by McNair students. Pre- sentations by program faculty members and other leading researchers. May be repeated for credit. P/NP or letter 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 hu- manities research journals and monographs. Weekly student research reports and presentations by humanities faculty members. May be repeated for credit. P/NP or letter grading.

193C. Journal Club Seminars: Mellon Mays Under- graduate Research Scholars. (2) Seminar, one hour; discussion, one hour. Limited to Mellon Mays under- graduate fellows. Study of key research journals and important research articles in arts, humanities, and social sciences. Weekly research reports and presen- tations by Mellon Mays students. Presentations by program faculty members and other leading re- searchers. P/NP or letter grading.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors or senior college courses. May be repeated for credit. P/NP or letter grading.

HUMAN GENETICS
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Guoping Feng, Ph.D.
Daniel H. Geschwind, M.D., Ph.D., in Residence
(Gordon and Virginia MacDonald Distinguished Professor of Human Genetics)
Michael A. Gorio, M.D., Ph.D. (Harold and Pauline Price Professor of Ophthalmology)
Wayne W. Grody, M.D., Ph.D.
Deborah Krakow, M.D., in Residence
Leonid Kruglyak, Ph.D.
Stefan Horvath, Ph.D.

James A. Lake, Ph.D.
Kenneth L. Lange, Ph.D. (Maxine and Eugene Rosenfeld Endowed Professor of Computational Genetics)
Aldons J. Lusis, Ph.D.
Stanley F. Nelson, M.D., in Residence
Roel A. Ophoff, Ph.D., in Residence
Pavli E. Pajukanta, M.D., Ph.D.
Christina G.S. Palmer, Ph.D., in Residence
Karen Reue, Ph.D.
Jerome I. Rotter, M.D., Ph.D., in Residence
Janet S. Sinsheimer, Ph.D.
Eric M. Sobel, Ph.D., in Residence
Marc A. Suchard, M.D., Ph.D.
Eric J.N. Vilain, M.D., Ph.D.
Stephen G. Young, M.D.

Professors Emeriti
Stephen D. Cederbaum, M.D.
Richard A. Gatti, M.D., in Residence (Rebecca Smith Professor Emeritus of A-T Research)

Associate Professors
Eleazar Eskin, Ph.D.
Julian A. Martinez, M.D., Ph.D.

Assistant Professors
Jessica Li, Ph.D.
Bogdan Pasaniuc, Ph.D.

Adjunct Professor
Jeanette C. Papp, Ph.D.

Adjunct Associate Professor
Emmanuel C. Delot, Ph.D.

Scope and Objectives
The goal of the graduate program is to train the next generation of leaders in human genetics. This broad and rapidly evolving field of re- search 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 biostatis- tics). In their research, students tackle Mendeleian diseases and genetically complex traits of key relevance to human health.

A wide variety of courses is offered to equip fu- ture 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 conclu- sions of biological and medical significance. In addition, courses on medical and ethical is- sues provide students with a societal perspec- tive on human genetics.

The program offers the M.S. and Ph.D. degrees; graduate study leading to a Ph.D. degree is emphasized. Under special circumstances, and only after consultation and approval by the Department of Human Genetics, individuals may apply for admission to the M.S. program.

Graduate Study
Official, specific degree requirements are de- tail- ed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in an-
nouncements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Human Genetics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Human Genetics. An M.D./Ph.D. program is also offered.

Human Genetics
Upper Division Courses
CM124. Computational Genetics. (4) (Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: Computer Science 52 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, human genetics related to molecular genetics and preparation for computational biology through presentation, other publications, and websites of the schools, departments, and programs.

Graduate Courses
M203. Stochastic Models in Biology. (4) (Same as Biometrics M203.) Lecture, four hours. Requisite: Mathematics 170A or equivalent experience in probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biometrics M207A and Biostatistics M207.) Lecture, three hours; discussion, one hour. Requisite: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biometrics M207B and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 110A, 110B. Methods of computer-oriented human genetic analysis. 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 components M207A; students may take either and are encouraged to take both, S/U or letter grading.

210. Topics in Genomics. (2) Seminar, two hours. Survey of current biological theory and technology used in genomic research. Topics include genomics technologies, functional genomics, proteomics, statistical genetics, bioinformatics, and ethical issues in human genetics. S/U grading.

M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biometrics M211 and Biostatistics M239.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 110A, 110B, Mathematics 170A. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeography, and coalescent approaches. Examination of the evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

CM224. Computational Genetics. (4) (Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110A, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems and solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

CM136C. Societal and Medical Issues in Human Genetics. (5) (Same as Sociology and Genetics M102.) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves and our place in the 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 CM124. Letter grading.

C144. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C236C. Letter grading.

199. Special Studies in Human Genetics. (2 to 6) Tutorial, to be arranged. Students select instructor among eligible research faculty and carry out independent research project under instructor supervision. P/NP or letter grading.

236B. Advanced Human Genetics B: Statistical Aspects. (4) Lecture, three hours; computer laboratory, one hour. Recommended preparation: introductory statistical knowledge equivalent to Biostatistics 110A or Statistics 13 and general genetics knowledge equivalent to Ecology and Evolutionary Biology 121, Human Genetics 238A, or Molecular, Cell, and Developmental Biology 144. Statistical and population genetics related to analysis of complex human genetic traits. Reading materials include original research papers and reviews. Letter grading.

C236C. Societal and Medical Issues in Human Genetics. (5) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of 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.

C244. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to biology, with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C244. S/U or letter grading.

M252. Seminar: Advanced Methods in Computational Biology. (2) (Same as Bioinformatics M252 and Chemistry M252.) Seminar, one hour; discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology, development of novel methodologies. S/U or letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Pathology M255.) Lecture, three hours. Basic molecular genetic and cytogenetic techniques of chromosome mapping. Selection of human genetic and genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization of disease genes. S/U or letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M260A, Chemistry CM260A, and Computer Science CM221.) Lecture, four hours; discussion, two hours. Enforced requisites: Computer Science 52 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and invention new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M278. Statistical Analysis of DNA Microarray Data. (4) (Same as Biostatistics M278.) Lecture, three hours. Requisite: Biostatistics 200C. Instruction in use of statistical tools used to analyze microarray data. Statistical techniques correspond to a standard protocol an investigator might follow when working with microarray data. S/U or letter grading.

282. Human Genetics Seminar and Journal Club. (2) Seminar, one hour biweekly; discussion, one hour biweekly. Limited to graduate students. Independent research and presentation in biweekly journal meeting club
Indo-European Studies / 409

Graduate Courses

200. Proseminar: Indo-European Studies. (2) Seminar, two hours every other week. Required of graduate Indo-European Studies students during first year. Introduction to graduate-level research in Indo-European studies. 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.

260. 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.


Information Studies

Graduate School of Education and Information Studies

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Gregory H. Leazer, D.L.S., Chair

Professors
Christine L. Borgman, Ph.D. (Presidential Professor of Information Studies)
Johanna R. Drucker, Ph.D. (Martin and Bernard Breslauer Professor of Bibliography)
Graduate Degrees
The Department of Information Studies offers the Master of Library and Information Science (M.L.I.S.) degree and the Doctor of Philosophy (Ph.D.) degree in Information Studies. One concurrent degree program (Library and Information Science M.L.I.S./Management M.B.A.) and one articulated degree program (Library and Information Science M.L.I.S./Latin American Studies M.A.) are also offered.

Information Studies
Lower Division Courses
10. Information and Power. (5) Lecture, five hours. Designed for undergraduate students. Introduction to core concepts of information and power and relation between them in range of social, economic, political, cultural, technological, and institutional contexts. Topics include information markets and economies; power of cultural and media institutions; state interests in information; information, conflict, and warfare; information organization, classification, and access; power and information technology infrastructure; and intellectual freedom. Letter grading.

Upper Division Courses
139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction in letterpress and students work on project group for duration of term. P/NP grading.

Graduate Courses
200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which information is created, integrated, 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. Service learning course that serves as forum for discussion, research, and understanding of 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 Literary Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of books, writing, and literary technologies. Investigation of invention of writing, diverse cultural concepts of literacy, earliest use of systematic notation systems in Mesopotamia, and current development of devices and practices that shape contemporary concepts of book and writing. Discussion of historical development of technology (tabletts, scrolls, codices, illumination and illustration techniques, paper and mass production, photography, digital tools), institutions (libraries, printing and publishing industries), cultural issues and politics (publishing, censorship, colonialism, globalization), formats and styles (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 questions of cultural diffusion and diversity encouraged. Letter grading.

Scope and Objectives
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 as behavior, user interface development, archives, preservation, and cataloging. Whether students choose to pursue a master’s degree or a Ph.D., they graduate with a broad understanding of both theory and practice.

Students with master’s degrees go on to careers as librarians, archivists, and information professionals in a variety of organizational settings. The Ph.D. focuses on the preparation of scholars in the field.

For information about the department and programs, see http://is.gseis.ucla.edu.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
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 societies through range of disciplines. Topics include nature of social change and development, theories of modernity and postmodernity, and social, economic, technological, and cultural aspects in information technologies and rise of information as commodity. Presentation of work of key writers and scholars in areas of information studies. Letter grading.

210. Global Media and Information. (4) Lecture, three and one half hours. Question of what diversity and culture mean in era of distributed networks and massive technological diffusion loops. Part of this involves work with differing ways of knowing, with differing ontologies. It is now widely accepted that global cultures and communities differ in way they practice knowledge, understanding, and making meaning of their worlds. How we draw boundaries around culture and community has become increasingly complicated, as culture becomes increasingly mediated and community has elements of local place and global imagination. How are political, economic, and cultural identities being shaped in global media culture? How does this shape nature of how power functions? How does this impact heritage, ecology, culture, and identity? Letter grading.

227. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multicultural and multilingual 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 formal processes of inquiry with individual components. Demonstration of use of evidence gathered for planning, decision making, and accountability in information systems. Review and implementation of various methods appropriate to design of assessment and evaluation studies. 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 concepts; survey of languages and transliteration systems; acquisition of Slavic and East European library materials; Slavic and East European scholarship in the West; relevant reference sources, archival and primary sources, and research methods; survey of online databases; compilation of bibliographies. S/U grading.

233. Records and Information Resources Management. (4) Lecture, three hours. Introduction to records and information resources management in corporate, governmental, and non-profit organizations, including analysis of organizational information flow, classification and filing systems, records retention scheduling, records protection and security, reprographic and microforms, information technology, and library support. Letter grading.


236. Approaches to Materialities of Texts and Media. (4) Lecture, four hours. 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 archaeology, digital humanities, and legacy of structuralist, semiotic, and visual studies approaches. Identification and understanding of methods by which artifacts have been produced, constructed, and mediated about implications of these for refiguring 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. Requisite: course 432. Review of environmental biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.

239. Letterpress Laboratory. (1) Laboratory, two hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on group project for duration of term. S/U grading.

240. Management of Digital Records. (4) Lecture, three hours. Introduction to long-term management of digital administrative, information, communications, imaging, or research systems and records. Topics include electronic recordkeeping, enterprise and risk management, systems analysis and design, metadata development, data preservation, and technological standards and policy development. Letter grading.

241. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking necessitates reformation of traditional concepts such as authenticity, authorship, and originals; information systems and metadata that are specifically designed to manage preservation process; new ethical, rights, and copyright concepts; economic, legal, and policy tools with which to manage digital information over long term. Introduction to strategies, techniques, and standards, as well as continuing challenges related to preserving born-digital/born-networked/digitized materials (e.g., electronic records, digital archives, video games, scientific simulations, digital humanities environments, sound and moving image materials, social media and personal digital archives). Implications for digital preservation of new technologies and their applications. Letter grading.

245. Information Access. (4) Lecture, two hours; discussion, one hour. Requisites: courses 200, 260. Provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields. Techniques of searching and retrieval; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours. Study of factors and influences, both individual and social, associated with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow, among social and occupational groups, and research on information needs and uses. Letter grading.


251. Seminar: Specialized Literatures. (4) Seminar, 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. Letter grading.

M254. Medical Information Infrastructures and Internet Technologies. (4) (Same as Bioengineering M257) 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. Letter grading.

255. Medical Decision Making. (4) (Same as Bioengineering M228) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of issues related to medical decision making. Introduction to concept of evidence-based medicine and decision processes related to process of care and outcomes. Basic statistical and decision-making 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.


260. Information Structures. (4) Lecture, four hours; discussion, one hour. Required core course. Introduction to various systems and tools used to organize material and create new ones, with emphasis on generic concepts of organization, classification, hierarchy, arrangement, and display of records. Provides background for further studies in cataloging, reference, information retrieval, and database management. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for M.L.I.S. and Ph.D. students to prepare for careers in data management and services, including data-intensive research methods; social studies of data practices; comparisons between disciplines; management of data by research teams; databases, and archives; practices of data sharing and reuse; and introduction to national and international policy for stewardship of data. Assessment of data archiving needs of one research community and group project to develop real data management plan in partnership with UCLA researchers in other academic departments. Letter grading.

262B. Data Curation and Policy. (4) Lecture, three and one hour. 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, and impact of technology on stakeholders in data management. Letter grading.

269. Seminar: Information Structures. (4) Seminar, four hours. Requisites: course 260, one other information structures course. Specialized studies in selected areas of descriptive and bibliographical cataloging, subject classification, Internet, and related technologies. May be repeated once. Letter grading.

270. Introduction to Information Technology. (4) Lecture, four hours. Introduction to theories and principles of information technologies. Topics include social issues of information technologies and design and development of information systems, background provided for further studies in information retrieval and design and maintenance of information systems. Preparation: one semester of programming. Letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Preparation: one programming course, one inferential statistics course. Survey of social, behavioral, design, and evaluation issues in human/computer interaction. Topics range from fundamentals to present-day research. Letter grading.

273. Communities, Information, and Civic Life. (4) Seminar, three and one half hours. Investigation of concepts of culture and diversity through direct collaboration with communities in Los Angeles region. Consideration of major issues around well-being of communities in contemporary America, with some eye toward larger global dynamics from fields as wide-ranging as sociology, media studies, anthropology, and urban studies. Investigation of range of theoretical, methodological, and applied literatures to develop group-based project designed in collaboration with relevant community groups in Los Angeles area. Examination of community-based methods of interaction and fieldwork (participatory, ethnography, asset mapping, and action research-based) and the role of information services based on this analysis. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Theories, principles, and practicalities of database systems, including database models, relational concepts, and technologies, methods, and storage, efficiency, and security considerations. S/U or letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Information professionals, scholars, activists, and information creators/designers/architects focus on questions of how culture and community to engage students in understanding information resources as cultural objects. Role of cultural heritage institutions within dynamics presented, but most fundamentally on how communities in partnership with information professionals can create, authorize, and represent information on their own and with their own terms. Can also serve as tool of empowerment rather than stratification. Study of impacts of technology on larger scales through readings and introductory sketches. Letter grading.


277. Information Retrieval Systems: User-Centered Designs. (4) Lecture, two hours; discussion, two hours. Requisites: courses 245, 260. Design implications of interaction between users and features of automated information systems and interfaces that are specific to information-seeking process. Emphasis on search strategy and subject access through use of thesauri and other indexing terms. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, 90 minutes. Access to and analysis of information through visualization has become increasingly prevalent as digital tools have made creation 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 design. Basic organization of graphical user interfaces depends on visualization of function, structure of assumptions about user experience, and other graphical characteristics of information systems. What are the ways in which organization of visualization presents arguments about knowledge? What historical and critical tools can be brought into useful dialog with contemporary visualizations? Letter grading.

279. Seminar: Information Systems. (4) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from year to year. Emphasis on special topics such as vocabulary control, file design, indexing, classification, and text processing, measurement of relevance, evaluation of information systems, and social and ethical concerns in information and information technology and services. Letter grading.

280. Social Science Research Methodology for Information Studies. (4) Lecture, four hours. Understanding of nature, uses, and practice of research appropriate to information studies. Identification of research problems and design and evaluation of research. Social science quantitative and qualitative methods. Emphasis on inquiry methodology and empirical research. S/U or letter grading.


282. Principles of Information Systems Analysis and Design. (4) Discussion, four hours. Theories and principles of special systems development, including determination of requirements, technical design and evaluation, and internal organization. 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 development of grant proposals and student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Studies. (2 to 4) Seminar, two to four hours. Identification, 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 electronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for Ph.D. students. Emphasis on recent contributions to theory, research, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information studies—ontological, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, contexts, institutions, practices, properties, values, and related phenomena. Interdisciplinary content. General standards of information-related disciplines. Frameworks for theory construction, such as critical theory, discourse analysis, hermeneutics, phenomenology, semiotics, social epistemology. Letter grading.

291B-291C. Special Topics in Theory of Information Studies. (4-4) (Not same as course 291B prior to Fall Quarter 2010.) Seminar, four hours. Enforced requisites: course 291A. Topics include information and evidence—record-keeping and memory-making, personal and community identity, accountability and trust. Information and design—and implement—information systems and services, information aesthetics. Information retrieval and knowledge organization. Information seeking, access, and use—contexts, techniques, needs, barriers. Information and power—groups, ideologies, identities, structures. Information and value—information ethics, evaluation of information services. Information policy and law—processes, institutions, players, stakes. Information institutions and professions—domains, ecologies, cultures, communities. Economics, geography, history, philosophy, politics, sociology of information. Letter grading.

296A. Doctoral Seminar: Research Methods and Design. (Formerly numbered 291B, 291C.) Seminar, four hours. Survey of qualitative, quantitative, and historical research designs. Ethical issues; conceptualization and measurement; indexes, scales, and sampling; experimental design, survey, field, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of Information Studies. (4-4) Seminar, four hours. Enforced requisites: course 298A. Topics include anthropological/fieldwork methods, archival methodology, bibliographical studies, textual analysis, discourse analysis, historical methods, information visualization, network analysis—bibliometrics, informetrics, scientometrics, social network analysis. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, one hour. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (2) Letter or Oral, two to four hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, exploration of issues related to professional development, such as career planning, continuing education, mentoring, and reflective practice; students also engage in process of guided portfolio design for M.L.I.S. degree. S/U grading.
410. Management Theory and Practice for Information Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management in all types of organizations wherever information professionals work. Letter grading.


422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within society, philosophy and practices, and functions of research libraries and work of their staffs in serving scholars. Letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide that service. Letter grading.

426. Library Services and Literature for Youth. (4) Lecture, four hours. Overview of literature and programs which are of interest to young adults (seventh grade and above). Discussion of special problems in working with young people and psychology of teenagers. S/U or letter grading.


433. Community-Based Archiving. (4) Lecture, three and one half hours. Working with communities on development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other historical and cultural materials; and undertaking community-centric collaborative research. Students required to reflect critically on questions about definition, community memory and recordkeeping practices, motivations, positioning, and ethics. Letter grading.

434. Archival Use and Users. (4) Lecture, three and one half hours. 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 use. While archivists have 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 can engage general public. Letter grading.


439A. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Requisite: course 431. Exploration of history of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival systems. Letter grading.

438B. Seminar: Special Collections. (4) Seminar, two hours; discussion, two hours. Special collections work with special collections in their institution. Students are expected to think through research aspects of exhibit or symposium or collection assessment and then create well-focused and curated agenda for presentation, exhibition, or preservation of materials. Letter grading.

440. Information Literacy Instruction: Theory and Practice. (4) Lecture, four hours. History, theory, methods, and materials of user education/bibliographic instruction in libraries and other information retrieval environments. Examination of variety of user education/bibliographic instruction theories and methodologies, including overview of planning and administration. Identification of methods in user education/bibliographic instruction. Application of methods of teaching use of libraries and information resources. S/U or letter grading.


444. 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.

446. Metadata. (4) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relationships among various automation entities, including internal library automation, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of parent organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.

450. Ph.D. Research. (2 to 8) Tutorial, to be arranged. Preparation: consent of 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.

455. Directed Study for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. 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 chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


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 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, genetics, and mental health. 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, social sciences, and biological sciences, and to have them interact and work together to form a deep understanding of the issues at the intersection of human social systems, evolutionary biology, and genetics.

The minor in Society and Genetics provides undergraduate students with the opportunity to understand and probe the complex problems and possibilities presented by modern genetics, with special attention to their social context and content. Given the dynamic interaction between genetics and the social world in which it is embedded, the minor is of necessity multidisciplinary and emphasizes a collaborative cross-disciplinary approach to instruction in the core courses of the minor and exposure to a wide range of disparate scholarship through elective courses available in such areas as anthropology, biology, history, philosophy, public policy, and sociology.

## Undergraduate Study

### Human Biology and Society B.A.

#### Admission

Admission to the Human Biology and Society B.A. major is by application and competitive, using student 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 deadline are considered only as space in the program permits. No applications are considered after Fall Quarter of the junior year. Premajor standing is not required to apply for the major. A copy of the major application is available online at http://www.socgen.ucla.edu.

#### Human Biology and Society Premajor

Incoming freshmen may be admitted as premajors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 1308 Rothe Hall to request premajor standing.

#### Preparation for the Major

**Required Core:** One course from Society and Genetics 5, M71A, or M72A.

Also required are Anthropology 7, Chemistry and Biochemistry 14A, Life Sciences 1, 2, Statistics 10 or 13, and two courses from American Indian Studies M10, Anthropology 9, Asian American Studies 20, Gender Studies 10, General Education Clusters M1A through 80CW, Geography 3, History 3C, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 40, 50, 60, Philosophy 4, 6, 8, 22, Public Policy 10A, Sociology 1, M5.

Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.9.

#### Transfer Students

Transfer applicants to the Human Biology and Society B.A. 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 1 and 2), introductory chemistry, one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_r.htm for up-to-date information regarding transfer selection for admission.

### The Major

**Required:** Society and Genetics 101, 105A, 105B, 108; two terms of course 193; 4 units from course 195CE, 196, or 199; and five courses, at least one of which must be a society and genetics course, from one of the following concentration areas:


- **Historical and Social Studies of Science:** Anthropology M125A, 153P, 181, 182, 185A, Asian American Studies 105, Bioengineering 165EW, Disability Studies 101, M121, Ecology and Evolutionary Biology 100, 120, 126, 130, 175, Environmental Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies 134, M162, M164, M180B, Geography M108, M115, Global Studies 100A, 100B, History M131C, 179A, 180A, 180C, Honors Collegium 177, Human Genetics C144, Neurobiology M169, Philosophy 124, 125, 129, 130, 132, 155, Society and Genetics M102, 120, 121, 130, 131, M140, 160, 161, 162, 163, 175, 180, 188, 195CE, 197, 199, Sociology M138, 143, M148, 154, 156, 170. See below for additional course options in the subfocus areas of...
cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.


Each course (except Society and Genetics 193) 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.

**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 select any subfocus option listed in their concentration area and complete three subfocus courses that may then be used to satisfy as many as three of the five courses required in their concentration area:

**Cell Development:** Molecular, Cell, and Developmental Biology 138, 165A, 168

**Ecology and Evolutionary Biology:** Three courses from Anthropology 121C, 124A, 124P, M125A, 128A, Ecology and Evolutionary Biology 100, 116, 120, 121, 126, 129, 130, 135, 175, 176

**Microbiology and Immunology:** Microbiology, Immunology, and Molecular Genetics 101, 185A, 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 135, 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, M117J, 127A, 129C, 160

**Human Biology and Society B.S.**

**Admission**

Admission to the Human Biology and Society B.S. major is by application and competitive, using student 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 deadline are considered only as space in the program permits. No applications are considered after Fall Quarter of the junior year.

Premajor standing is not required to apply for the major. A copy of the major application is available online at http://www.socgen.ucla.edu.

**Human Biology and Society Premajor**

Incoming freshmen may be admitted as premajors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 1308 Rolfe Hall to request premajor standing.

**Preparation for the Major**

**Required Core:** One course from Society and Genetics 5, M71A, or M72A.

Also required are Anthropology 7; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, 14D (or 20A, 20B, 20L, 30A, 30AL, 30B, 30BL); Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 3A1, 31B, 32A, and Statistics 10 or 13, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, 4BL (or 6A, 6B, 6C); Society and Genetics 5; and two courses from American Indian Studies M10, Anthropology 9, Asian American Studies 20, Gender Studies 10, General Education Clusters M1A through M1Z, Geography M109, M115, Global Studies 100A, 100B, History 180A, 180C, Honors Collegium 177, Philosophy 124, 125, 130, 132, 135, 154, 154B, 155, 156, 157A, 157B, 170, Psychology 187C, Public Policy 103, Social Welfare 162, Society and Genetics M102, 120, 121, 130, 131, M140, 160, 161, 162, 163, 175, 180, 188, 195CE, 197, 199, Sociology 143, 154, 156, 170. See below for additional course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.

for additional course options in the subfocus areas of ecology and evolutionary biology, and psychology and mental health.

**Historical and Social Studies of Science:** Anthropicology M125A, 153P, 182, 185A, Asian American Studies 105, Bioengineering 165E, Disability Studies 101, M121, Ecology and Evolutionary Biology 100, 120, 126, 130, 175, Environmental Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies 134, M162, M164, M180B, Geography M109, M115, Global Studies 100A, 100B, History M151C, 179A, 179B, 180A, 180C, Honors Collegium 177, Human Genetics C144, Neurobiology M169, Philosophy 124, 125, 129, 130, 132, 155, Sociology and Genetics M102, 120, 121, 130, 131, M140, 160, 161, 162, 163, 175, 180, 188, 195CE, 197, 199, Sociology M138, 143, M140, 154, 166, 170. See below for additional course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.


Each course (except Society and Genetics 193) 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.

### 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 select any subfocus option listed in their concentration area and complete three subfocus courses that may then be used to satisfy as many as three of the five required courses in their concentration area:

- **Cell Development:** Molecular, Cell, and Developmental Biology 138, 165A, 168
- **Ecology and Evolutionary Biology:** Three courses from Anthropology 121C, 124A, 124P, M125A, 128A, Ecology and Evolutionary Biology 100, 116, 120, 121, 126, 129, 130, 135, 175, 176
- **Microbiology and Immunology:** Microbiology, Immunology, and Molecular Genetics 101, 185A, 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

**Population Genetics:** Two courses from Ecology and Evolutionary Biology 135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144


Students may petition to have a course not on the approved list applied toward the four-course elective requirement. Consult the undergraduate counselor in 1308 Rolfe Hall.

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 genomics, psychology, 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.

- **M71A-M71B-M71CW, Biotechnology and Society.** (6-6-6) (Same as GE Clusters 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 requisites: course M71B, and English Composition 3 or English as a Second Language 36. Topics include in-depth examination of ethics and human genetics, bio-weapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

- **M72A-M72B-M72CW, Sex from Biology to Gendered Society.** (6-6-6) (Same as GE Clusters M72A-M72B-M72CW, GE Clusters M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course M72A is enforced requisite to M72B, which is enforced requisite to M72CW. Limited to first-year freshmen. Letter grading. M72A-M72B. 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 in science and law, and politics of sex research. M72CW. Special Topics, Seminar, three hours.限选课程：Reproduction, sexuality, gender identity, social policy, and reproductive

101. Genetic Concepts for Human Sciences. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for Life Sciences 4. Focused treatment of selected complex genetic concepts from molecular biology, population and quantitative genetics, and evolutionary biology, with emphasis on gene-environment interaction at various levels and culminating in exploration of notion of co-evolution of genetics and society. Basic science concepts presented through real-world issues and research problems. Current research on cancer, genome-wide association, biotechnology, and human genome system and development, and how this research is performed and adds to knowledge. Letter grading.

102. Societal and Medical Issues in Human Genetics. (Formerly numbered 102W.) (Same as Human Genetics CM136C.) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge, and the use of ourselves and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commercialization of these 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. Letter grading.

105A. Ways of Knowing in Life and Human Sciences. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 5. Introduction to study of epistemology to train students to recognize different ways of knowing what we know. In life and human sciences, instrumentation and methods are used to study, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help students evaluate explanatory models, standards for evidence versus alternative studies. Explorations may include DNA sequencing, tissue cultures, bioinformatics, statistics, photography and cinema, charts, trees, and databases. DNA sequencing is used to study gene functions, evolutionary patterns, and disease and plays role in legal context to reconstruct aspects of human history or to trace identity of people. Databases play role in life sciences in administrative, commercial, and legal contexts. Photography is used in sciences and medicine (e.g., X-ray photography), as well as in art and forensics. Letter grading.

105B. Problems of Identity at Biology/Society Interface. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 5. Course 105A is not requisite to 105B. 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, intelligence, or sexuality. Topics contain set of intertwined problems that are difficult to define, and are wrapped up in conceptions of what it is to be human, that it has spawned research from variety of perspectives in biological and human sciences. Students critically engage various intellectual perspectives—some competing, some complementary—that intersect on one particular topic. Examination of how researchers from social/historical and biological sciences construct topic as intellectual problem, methods they bring to bear on it, and findings they have produced. Letter grading.

108. Human Biology, Genetics, and Society. (5) Lecture, three hours; laboratory, two hours. Limited to senior Human Biology and Society majors. Lectures, readings, discussions, and development of collaborative research projects in mapping and staging contemporary controversy at intersections of human biology, genetics, and society. Reading of large amounts of material to make sense of both historical and contemporary intellectual and political issues, with original research project and presentation required. Letter grading.

120. Using Genetics to Infer Human History. (4) Seminar, three hours. DNA elucidates human history in ways heretofore investigation sometimes cannot. Introduction to field for nonspecialists. Discussion of practical and theoretical background (e.g., challenges of using ancient DNA, population genetic theory) necessary to critically evaluate genetic history studies examined later. Prehistory (such as origins of man anatomically and how humans colonized world), with focus on how genetic analysis has been used to trace major cultural expansions in Europe, Asia, and Africa; Lema people of South Africa; Anglo-Saxon migrations into British Isles; genetic legacy of Genghis Khan; origins of Eurasians; foundation of the New World; and male line conservation of Jewish Cohanim priesthood, descendants of Aaron, brother of Moses. Letter grading.

121. Race, Science, and Citizenship. (4) Seminar, three hours. Early development of scientific method and systematic exclusion of those in subordinate social groups from scientific practice. Interrogation of binaries that prop up scientific knowledge construction, and consideration of their embeddedness in Western science compare with indigenous or local knowledge systems. How medical research is motivated by competing assumptions of racial hierarchy and equity. Examination of scientists’ use of science to classify racially inferior and contaminated foreigners as threats to sociocultural order. Exploration of how people use knowledge about their embodied experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or alliance with scientific experts. How contemporary developments in science and technology bring to light some central concerns of social and political theory. Letter grading.

130. Biotechnology and Society. (4) Lecture, three hours. Technical manipulation of living matter from humans, animals, and plants as scientific and social undertaking. How come into existence. Questions, controversies, and changes that come with ability to make living technologies. Rise of engineering ideal in American biology. Biological modernism and understanding of historical suppression of death, molecularization of life, genetic engineering ideal in American biology. Biological modernism and how genetics has been used to consolidate and undermine liberal democracies and totalitarian regimes. How genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both replicate and gene geneticists in creation of racial state in Nazi Germany; and debates over compulsory sterilization of mental defectives in U.S., Canada, and Europe from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of regenerative technologies, and rise of disease advocacy groups as important players in determining funding and direction of genetic research. 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 countless 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 historical analysis. Consideration of scientific disputes between behavior geneticists and their critics, distinctive history and social organization of behavior genetics as scientific discipline, and public reception of behavior genetics and disputes about its social and policy implications. Letter grading.

162. Biotechnology, Law, and Body. (4) Seminar, three hours. Notions of bodily integrity, privacy, right to life, and to choose to die have created perception that our bodies are protected by law, that somehow we are not ourselves, and that our bodies, encompassing not only our physical being but intangible information contained within our materialized forms. Question of whether these rights to our own bodies and to self-identity are protected by constitutional law, in light of recent developments in biotechnology. Introduction to political and legal discourse of rights. Historical perspective of how law and science have treated questions of embodied experiences and political theory. Letter grading.


175. Current Directions in Social and Historical Study of Science. (4) Seminar, three hours. Preparation: some familiarity with field of science and technology studies. Investigation of recent work in history and social study of science and technology, with special emphasis on recent developments, possible fu-
ture directions, and questions of disciplinarity and interdisciplinarity. Topics may include histories of recent and emerging science; biocapital, bio-citizenship, biosecurity, and/or biopolitics; social and historical approaches to finance and money; and social and historical approaches to risk, preparedness, and safety.

Letter grading.

180. Special Courses in Society and Genetics. (4) Lecture, three hours. Departmentally sponsored experimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188. Special Courses in Society and Genetics. (4) Seminar, three hours. Departmentally sponsored experimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.


196. Research Apprenticeship in Society and Genetics. (2 to 4) Seminar, six hours. Limited to juniors/seminars. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other product) required. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Society and Genetics. (2 to 4) Seminar, one to 12 hours. Limited to 4.) Directed research leading to a final project or thesis. (Formerly numbered 195.) Entry-level research opportunities in society and supervision of regular faculty member related to the topic of the project. May be repeated for credit. S/U grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, six hours. Preparation: apprenticeship for teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member related to the topic of the project. May be repeated for credit. S/U grading.

Institute of the Environment and Sustainability

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Scope and Objectives

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. 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 concerns. Los Angeles itself is a vital asset to this mission. As an international megacity 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.

The IoES offers creative, multidisciplinary academic programs and courses that address the full complexity of current environmental problems and sustainable solutions. The Bachelor of Science 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 the Environment/General Education Clusters M1A, M1B, M1CW on the global environment. The cluster format is a series of three integrated courses taught 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 environmental and sustainability topics such as the history of environmental thought, environmental policy, and the impacts of human population.

At the graduate level, the IoES offers the Environmental Science and Engineering (D.Env.) degree program that was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional Ph.D. 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 through nine-month problems courses.

The program has awarded the Doctor of Environmental Science and Engineering degree to over 200 students, and UCLA remains unique in the country in awarding such a degree.

**Undergraduate Study**

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.

**Environmental Science B.S. Capstone Major**

The Environmental Science B.S. 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 six-course upper division environmental science requirement reflecting the disciplinary breadth of environmental science, two social sciences/humanities courses, participation in an ongoing environmental science colloquium, 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.

**Preparation for the Major**

**Required:** Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L), Earth, Planetary, and Space Sciences 1 (required for the Earth and environmental science minor) or Environment M10, Life Sciences 1, 2, Mathematics 3A and 3B (or 31A and 31B), Physics 6A and 6B (or 1A and 1B), Statistics 12 or 13.

For the atmospheric and oceanic sciences and environmental engineering minors, Chemistry and Biochemistry 14C (or 30A), or Mathematics 3C (or 32A) and Physics 1C (or 6C) are also required.

For the conservation biology minor, Chemistry and Biochemistry 14C (or 30A), Life Sciences 1, and 3 are also required.

For the Earth and environmental science minor, Chemistry and Biochemistry 14C (or 30A) or Physics 1C (or 6C), Earth, Planetary, and Space Sciences 1, and one course from 5, 13, 15, or 61, and Mathematics 3C (or 32A) are also required.

For the environmental health concentration, Chemistry and Biochemistry 14C (or 30A) and Life Sciences 3 are also required.

For the environmental systems and society minor, two courses from Chemistry and Biochemistry 14C or 30A, Life Sciences 3, Mathematics 3C or 32A, and Physics 1C or 6C are also required.

For the geography/environmental studies minor, two courses from Chemistry and Biochemistry 14C or 30A, Life Sciences 3, Mathematics 3C or 32A, and Physics 1C or 6C, plus Geography 5 and one course from 1, 2, 3, 4, or 6 are also required. Students should take these courses before enrolling in upper division courses.

Each course applied toward requirements for preparation for the major must be passed with a grade of C– or better. Students receiving a grade below C– in two courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Environmental Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two general chemistry courses with laboratory for majors, two general biology courses with laboratory for majors, two calculus courses, and two calculus-based physics courses.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions.htm for up-to-date information regarding transfer selection for admission.

**The Major**

The major consists of four requirements: environmental science, social sciences/humanities, practicum/colloquium, and minor or concentration, as follows:

**Environmental Science Requirements Required:** One course from each of the following six core environmental science areas. No more than two courses may be from any one department. (1) *One atmospheric and water science course* from Atmospheric and Oceanic Sciences 101, 103, M105, 130, Earth, Planetary, and Space Sciences C132, 153, or Geography 105; (2) *one climate science course* from Atmospheric and Oceanic Sciences 102, Geography 102, 104, M106, or M131; (3) *one Earth science course* from Earth, Planetary, and Space Sciences 101, C113, 119, 139, 150, Environment M127, Geography 100, 101, or M107; (4) *one ecology and conservation biology course* from Ecology and Evolutionary Biology 100, 109, 116, 151A, 154, Environment
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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/indexintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Institute of the Environment and Sustainability offers the Doctor of Environmental Science and Engineering (D.Env.) degree.

Environment

Lower Division Courses

M1A-M1B-M1CW. Environment and Sustainability. (6 units) (Same as GEN 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. Human effects on Earth's ecosystem and social and technological solutions to environmental pollution and overpopulation. History and ecology in lectures; laboratory exercises included in discussions. M1CW. Special Topics, Seminar, three hours. Enforced requisite: course M1B. Examination of specialized environmental topics such as air and water, global warming, and feeding Earth's population. Satisfies Writing II requirement.

M10. Introduction to Environmental Science. (4) (Same as Atmospheric and Oceanic Sciences M10) Lecture, three hours; laboratory, one hour. Limited to undergraduate students. Introduction to environmental science as discipline and as way of thinking. Discussion of critical environmental issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. Sustainability and Environment. (4) Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental components, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

14. Ocean Environment. (8) Lecture, three hours. Introduction to scientific studies of oceans, with emphasis on ecosystems and environmental issues. P/NP or letter grading.

M30. Introduction to Environmental Humanities. (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.
Upper Division Courses


M111. Earth and Its Environment. (4) (Same as Atmospheric and Oceanic Sciences M110.) Lecture, three hours; fieldwork, five hours. Enforced prerequisites: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of historical, cultural, and literary approaches (e.g., fiction, poetry, visual art) to represent environmental issues. Topics may include biodiversity, wilderness, food, urban dwellings, colonial ecological, environmental justice, and climate change. Service learning component includes meaningful work off-campus agency/agencies selected by instructor. P/NP or letter grading.

M130. Environmental Change. (4) (Same as Geography M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes over past two million years. How present environmental change relates 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.

M131. Gender and Sustainability: Local-Global Connections. (5) Lecture, three hours; service learning, two hours. Introduction to gender and development (GAD) theories, analytical approaches, and applied case studies in context of local-global sustainability and environmental issues, with focus on knowledge, roles, relationships, needs, practices, and strategies of women vis-à-vis men. Investigation of gender and sustainability dimensions of food system, including agri-business, community-supported agriculture, family farming, fair trade, certification, genetically engineered foods, food supplements, food safety, and nutrition, permaculture, and related student-advocated issues. Integration of variety of student-centered learning modes. Volunteering with community/community service organization. Required. P/NP or letter grading.

M132. Environmentalism: Past, Present, and Future. (4) (Same as Geography M115 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation. Examination of politi- cals of American environmental thought and contem- porary environmental questions as they relate to broader set of questions about nature of development, sustainability, and equity in environmental de- bate. Exploration of issues in broad context, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

M133. Environmental Sociology. (4) (Same as Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social fac- tors (such as class, race, gender) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

M134. Environmental Economics. (4) (Same as Economics M134.) Lecture, three hours. Requisites: Economics 41 or Statistics 12 or 13, and Economics 101 (may be waived with consent of instructor). Introduction to economic analysis of environment as system of flows. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

M135. California Sustainable Development: Economic Perspective. (4) (Same as Public Policy M149 and Urban Planning M163.) Lecture, three hours. Examination of specific environmental challenges that California faces. Microeconomic perspective used, with special emphasis on incentives of pollutants to re- duce their pollution and incentives of local, federal, and international actors to work towards solutions. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

M137. Historical Geography of American Environment. (4) (Same as Environmental Studies M137.) Lecture, three hours. Designed for juniors/seniors. Study of system- atic changes of natural environment in U.S. during historical time, with emphasis on interaction between and among natural forces producing environmental change, and human settlements, and human factors of sustainable development, economic activities, and cultural traits. P/NP or letter grading.

138. Effective Methods of Social Change. (4) Lecture, three hours; discussion, two hours. Introduction to most effective methods of social change. Examina- tion of social entrepreneurs, innovators, and visionaries. Review of traditional methods of activism and new theories of nonviolent change. Case studies of success in addressing conflict, curing diseases, overcoming poverty, and addressing other problems of social injustice as well as reviewing actual strategies for social change in 21st century. Challenges that nonprofit ad- vocates and community activists face today, including strategic planning, time management, networking, negotiation, and fund-raising. Letter grading.

150. Environmental Journalism, Science Communications, and New Media. (4) Lecture, three hours. Introduction to environmental journalism, science communications, and new media. Includes guest lectures by prominent successful practitioners in wide variety of media. Focus on technologies, methods, genres, and theories of communicating environ- mental challenges, exploring solutions, and en- gaging public in newspapers, television, radio, movies, online, on mobile devices, and through social media. Discussion of possibilities and limitations of different media and importance of communications for environmental science, policy, public under- standing, and individual decision making. Production by students of environmental communications in variety of media. P/NP or letter grading.


M155. Energy in Modern Economy. (4) (Same as Physics M155.) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B), Physics 1A and 1B (or 6A and 6B). Statistics 12 or 13. Examination of physics of energy, history of energy develop- ment, and role that energy plays in our economy, par- ticularly in transportation and power grid. Prospects for decreasing availability of fossil fuels and impact of global warming on energy development. Current and potential future government and social responses to energy issues. P/NP or letter grading.

157. Energy, Environment, and Development. (4) Lecture, three hours. Requisites: Mathematics 3A and 3B (or 31A and 31B), Physics 1A and 1B (or 6A and 6B). Introduction to basic energy concepts and exam- ination of role of various energy sources, energy con- version technologies, and energy policies in modern life. Analysis of implications of current patterns of en- ergy production and consumption for future economic and environmental well-being. Integration of concepts and methods from physical and life sciences, engi- neering, environmental science, economics, and public policy. Basic quantitative skills provided to an- alyze and critique technical, economic, and policy
choices to address challenge of balancing economic growth and environmental sustainability. P/NP or letter grading.

159. Life-Cycle Analysis for Sustainability Assessment. (4) Lecture, three hours. Requires: Mathematics 3A and 3B (or 31A and 31B). Public discourse about current patterns of production and consumption of energy and other services makes it likely that sustainability concerns suggest such patterns are environmentally and economically unsustainable. Introduction to basic concept of life-cycle analysis (LCA), including analytical frameworks and techniques for systematically and holistically evaluating environmental trade-offs presented by different alternatives. Focus on methodology of LCA to compute various material inputs and outputs from 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. Students perform life-cycle analysis of one technology, product, or service of their choice. P/NP or letter grading.

160. Topics in Environmental Economics and Policy. (4) Seminar, three hours. Requires: Statistics 12 or 13. Examination of interaction of environmental economics and policy, with focus on testing policy-relevant environmental hypotheses using economics research approach. Invited scholars present research aimed at demonstrating results on various topics such as climate change, pollution, and transportation. P/NP or letter grading.

M161. Global Environment and World Politics. (4) (Same as Political Science M122B.) Lecture, three or four hours (when scheduled). Recommended requisite: Political Science 20. Polities and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

M162. Land Use and Development. (4) (Same as Urban Planning M162.) Lecture, four hours. Examination of institutional and historical evolution of land use in U.S. Comparison and contrasting of how cities have evolved in different parts of U.S. and some recent trends in urbanization. Relationship of state-level land-use policies and politics and ways in which localities plan. Environmental, social, and equity aspects of different patterns of urbanization and likely trends into future. Letter grading.

163. Business and Natural Environment. (4) Lecture, three hours. Examination of role of business in mitigating environmental degradation and sustainability. Emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. P/NP or letter grading.

M164. Environmental Politics and Governance. (4) (Same as Urban Planning M160.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.

166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of water security and sustainability issues, including interactions between scientific, technological, management, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues such as pollution, climate change, and water infrastructure. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through writing instruction and negotiations and media training. P/NP or letter grading.

M167. Environmental Justice through Multiple Lenses. (4) (Same as Urban Planning M167.) Lecture, three hours. Examination of intersection between race, economic class, and environment in U.S., with focus on health outcomes. Emphasis on understanding environmental inequality is highly complex phenom -

enon, multidisciplinary and multipopulation approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Seminar, 90 minutes; one field trip. Limited to undergraduates. Study of current topics in environmental science, including participation in weekly colloquium sessions and field trips. May be repeated for credit. P/NP grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enforced requisite: Statistics 12 or 13. Limited to Environmental Science majors who have completed 24 units of preparation for major courses, including statistics, and 12 or more units of upper division courses toward major or minor requirements. Examination of case studies and presentation of tools and methodologies in environmental science, building on what students have been exposed to in other courses. Letter grading.

180B-180C. Practicum in Environmental Science. (5-8) Laboratory, four hours; field trips. Enforced requisite: course 180A. Course 180B is enrolled requisite to course 180C. Limited to senior/junior Environmental Science majors. Investigation of various aspects of one environmental concern using a multidisciplinary approach. Particulate emphasis on developing skills required for working as professionals in this field. Work may involve site investigations, original data collection, and use of geographic information systems, and environmental policy and law issues. Case study to be defined and conducted with collaboration of local agency or non-profit institute. Letter grading.

184. Basics of Satellite Oceanography. (4) Lecture, two hours; discussion, one hour; computer labora - tory, three hours. Remotely sensed data collected since late 1970s provide oceanographers with large volume of information on state of surface of world ocean, including sea surface temperature measured by infrared sensors, anomalies of sea winds measured by scatterometer or color imagery measured by optical sensors. Multidisciplinary information enables comprehensive monitoring of both physical and biological properties of ecosystems in different ocean regions. P/NP or letter grading.

185A. Education for Sustainable Living Program Speaker Series. (1) Lecture, two hours. Analysis of principles of sustainability through series of lectures by world-renowned faculty members, authors, environmentalists, and other experts. Students write and submit a required student response paper. May be repeated for credit. P/NP grading.

185B. Education for Sustainable Living Program Action Research. (2) Lecture, two hours; fieldwork, four hours. Investigation of campus sustainability with emphasis on engaging students with faculty mentors. Preparation: 1.0 grade-point average. Letter grading. May be repeated for credit.

185C. Education for Sustainable Living Program Action Research Leader. (3) Seminar, two hours; fieldwork, six hours. Students lead research teams to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student research teams to generate a coalition of students that together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

186. Comparative Sustainability Practices in Local/Global Settings. (4) Fieldwork, four hours. Guided fieldwork and comparative analysis used to assess local sustainability practices and policies in diverse regional or international settings. Emphasis on comparing role of local and regional culture, geography, economic climate, and governmental policies on sustainability practices. Uses of observation, interviews, and unobtrusive measures to document and analyze role and influence of local/ global context on sustainability behavior of individuals, small businesses, and other institutions in everyday life. Letter grading.

188A-188B. Special Courses in Environment. (4-2) (Formerly numbered 188.) Lecture, three hours (course 188A) and two hours (course 188B), Departmentally sponsored or experimental or temporary courses such as those listed below. May be taken for credit. P/NP or letter grading.


195. Community or Corporate Internships in Environmental Science. (2 or 4) Tutorial, to be arranged. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to environmental science and/or sustainability. Students meet on regular basis with faculty supervisor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult under -graduate adviser. P/NP or letter grading.

199. Honors Research in Environmental Science. (2 to 4) Tutorial, four hours. Limited to junior/senior Environmental Science majors. Development and completion of honors thesis. 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. May be repeated for credit. 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 juniors/seniors. Supervised individual research or investigation of a matter deeply. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Preparation: apprenticeship under active guidance of faculty mentor. May be repeated for credit. Limit of 6 units. Individual contract required. P/NP or letter grading.

Graduate Courses

260. Information, Technology, Business, and Society. (4) Seminar, three hours. Interdisciplinary re -search seminar to bring together social scientists and computer science methods to design effective information-based solutions to social problems. Topics include technology and framing of re -search questions, development of comprehensive re -search project under direct supervision of faculty mentor. May be taken for at least two terms and for total of at least 8 units. May be repeated for credit. Individual contract required. Letter grading. P/NP or letter grading.

277. Leaders in Sustainability. (4) (Formerly numbered Environmental Science and Engineering 277.) Lecture, three hours. Common course for all students participating in Leaders in Sustainability Program, including those from engineering, law, management, public affairs, public health, natural and social sci -ences, and others. Creation of environment for aca -demically based discussions on various sustainability-related themes, capitalizing on wide mix of disciplines represented among participating students. May be repeated for credit. Letter grading. Pre -parations feature UCLA faculty members, external speakers, and leadership skills to help students learn more about how to best put their interests in sustain -ability to use. Letter grading.

297A-297B. Advanced Topics in Environment and Sustainability. (4-2) Seminar, four hours (course 297A) and two hours (course 297B). Advanced study and analysis of variable current topics in environment and sustainability. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice per -sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid -
Integrative Biology and Physiology

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Gene D. Block, Ph.D., Chancellor
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Gordon L. Fain, Ph.D.
Mark A. Frye, Ph.D.

Barnett A. Schlinger, Ph.D., Chair
Walter H. Metzner, Ph.D., Vice Chair
Patricia E. Phelps, Vice Chair

Preparation for the Major

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/development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, auditory and visual behavior, biomechanics of rehabilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neuromotor control, and social control of neuronal plasticity.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology Ph.D. Program (http://www.mcip.ucla.edu) or the interdepartmental Neuroscience Ph.D. Program (http://www.neuroscience.ucla.edu).

Undergraduate Study

Physiological Science B.S.

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 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AAL, and 4BL, or 6A, 6B, and 6C, or 6AH, 6BH, and 6CH.

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, and 14C, or 20A, 20B, and 30A, Life Sciences 1, 2, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and Statistics 13, and Physics 1A or 6A, 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.

For all preparation courses, students must complete each course with a grade of C or better. Repetition of more than one preparation course results in dismissal from the major.

Transfer Students

Transfer applicants to the Physiological Science major with 90 or more quarter units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 the undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admiss_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Physiological Science 107, 111A, 111B, 111L, Chemistry and Biochemistry 153A, 153L.

A total of five upper division physiological science electives is required. Eight units of upper division studies must be organized around a core of upper division courses that are in the major. Additional courses in the major are strongly encouraged, especially for students who are interested in graduate studies.

Courses 198HC, 191H, 192, 193, 195, 196, and graduate courses at the 300, 400, or 500 level are recommended for those students planning to do graduate work in physiological science.
level may not be applied toward the elective requirement.
Each required and elective course must be taken for a letter grade, and a C average must be maintained in all upper division courses taken for the major. A grade of C or better is required in Physiological Science 107 and 111A to enroll in course 111B. If students fail to meet these requirements, they may be dismissed from the major.

Honors Program
The honors program provides exceptional students with the opportunity for individual research culminating in an honors thesis. Requirements for admission include a 3.0 overall grade-point average 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 Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Department of Integrative Biology and Physiology offers the Master of Science (M.S.) degree in Physiological Science.

Physiological Science

Lower Division Courses
3. Introduction to Human Physiology. (5) Lecture, three hours; laboratory, two hours. Not open to Physiological Science majors. Courses 3 and 5 may be taken independent, concurrently, or in either sequence. Understanding of human body, its organization from molecular to cellular to tissues and organs, and how component parts function in integrated manner to permit life as we know it. P/NP or letter grading.
5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; discussion, 30 minutes; laboratory, 90 minutes. Not open to Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on roles that exercise and nutrition play in health, and prevention and management of such illnesses as hypertension, diabetes, and heart disease. P/NP or letter grading.
7. Science and Food: Physical and Molecular Origins of What We Eat. (8) Lecture, three hours; laboratory, two and one half hours. Preparation: high school chemistry, mathematics, physics. What makes lettuce crispy and some cuts of meat chewier than others? Exploration of origins of food texture and flavor, using concepts in physical sciences to explain macroscopic properties such as elasticity and phase behavior, as well as physiological role of food molecules in plants and animals we eat. Letter grading.
13. Introduction to Human Anatomy (6) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletomuscular, nervous, circulatory, respiratory, endocrine, and reproductive systems. Concurrently scheduled with course CM203. Letter grading.
90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. Introduction to current topics in physiological science by a team of departmental faculty members. P/NP or grading.

Upper Division Courses
100. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with an emphasis on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.
CM102. Human Physiological Systems for Bioengineering I. (4) (Same as Bioengineering 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 physiological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspects of physiological systems included. Actual demonstrations of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM204, Letter grading.
107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences 2, Physics 1A, 1B, 1C. Students must receive grade of C or better to proceed to next course in series. Systems anatomy focused primarily on human anatomy. Topics include cardiopulmonary, reproduction, nervous, and skeletal-muscular systems, with introduction to biomechanical principles. Letter grading.
111A-111B. Foundations in Physiological Science. (6-8) Lecture, four hours; discussion, two hours. Letter grading. 111A. Requisites: course 107, Chemistry 14C or 30A, Life Sciences 1, 2, 3, 4, 23L, Physics 1B or 6B, 6CH. 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 neural plasticity. 111B. Requisite: course 111A, Chemistry 14D or 30B. 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. (3) Laboratory, four hours. Requisites: courses 111A and 111B with grades of C or better. Corequisite: Physiological Science major. Designed to illustrate physiological principles studied in courses 111A, 111B. Letter grading.
122. Biomedical Technology and Physiology. (4) Lecture, four hours. Enforced requisites: Life Sciences 1, 2, 3, 4, 23L, Physics 1A, 1B, 1C (or 6A, 6B, 6C). Developments in biotechnology and their impact on diagnosis and treatment of disease, basic engineering principles, and designs that lend themselves to deciphering physiological states, and application of new technologies in clinical practice and biomedical research. Letter grading.
124. Molecular Biology of Aging. (4) Lecture, three hours. Enforced requisites: Chemistry 15A, Life Sciences 1, 2, 3, 4, 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 nutritional modulation of lifespan and complex and profound relationship between underlying aging processes and the regulation of aging that includes dietary restriction, mitochondria, insulin/IGF signaling, and link between tumor suppression and organismal aging. Letter grading.
125. Molecular Systems Biology. (4) Lecture, three hours. Discussion, one hour. Enforced requisites: courses 111A and 111B, or M160A and M160B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C226. Letter grading.
C126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M160A and M160B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course CM202. Letter grading.
133. Exercise Physiology. (5) Lecture, three hours; laboratory, two hours. Requisite: course 111B, Physiological responses and adaptations to acute and chronic exercise. Letter grading.
135. Dynamical Systems Modeling of Physiological Processes. (5) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating models of physiological systems. Focus on dynamical principles inherent in physiological systems. Letter grading.


140. Hormones and Behavior in Humans and Other Animals. (4) (Same as Society and Genetics M140.) Lecture, three hours. Examination of hormones as physical and genetic variables involved in hormonal processes and function. Interactions among hormonal levels, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parental behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication, and reproductive suppression. Critique of primary literature on behavioral endocrinology about humans and other species. Consideration of spectrum of noninvasive to highly invasive endocrine sampling methods, and which types of questions can be answered in laboratory and field, as well as ethics of hormone studies and their implications for humans and other animals. Letter grading.

143. Neurobiology of Skilled Hand Function. (4) Lecture, three hours. Enforced requisite: course 111A or Neuroscience M101A. Structure and function of hand and how brain and spinal cord control its movement. Analysis of causes leading to hand impairment after different insults to nervous system. Exploration of therapies to promote plasticity in nervous system to reconstitute normal hand function. Letter grading.

C144. Neural Control of Physiological Systems. (5) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Methods to be developed by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

M145. Neural Mechanisms Controlling Movement. (9) (Same as Neuroscience M145.) 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, mastication, and swallowing. Letter grading.

146. Principles of Nervous System Development. (4) Lecture, three hours; discussion, 90 minutes. Requisites: courses 107 (or Neuroscience 102) and 111A (or M180A, Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, or Psychology M117A). Examination of construction of vertebrate nervous system as series of integrated steps beginning with axon and dendritic development to be described by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; research demonstration, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.

M148. Neuronal Signaling in Brain. (4) (Same as Neuroscience M148.) Lecture, three hours; discussion, one hour. Requisites: courses 111A (or M180A or Neuroscience M101A), M180B (or Neuroscience M101B or Chemistry 153A). Consideration of brain function, with focus on cellular physiology and functional neuroanatomy. Topics include neuronal excitability, ion channels, and function of specific neuronal circuits in auditory pathway, basal ganglia, cerebellum, hippocampus, and neocortex. Letter grading.

149. Mechanisms of Major Human Diseases. (4) Lecture, three hours. Requisites: courses 111A, 111B (111B may be taken concurrently). Integration of principles gained through basic science curriculum with presently understood mechanisms of selected human diseases. Progressive developments of these diseases presented in terms of changes in cell biology and function, and changes in regulation of intercellular interactions. Letter grading.


C152. Musculoskeletal Anatomy, Physiology, and Biomechanics. (5) Lecture, three hours. Requisite: course 111A. Anatomical, physiological, and mechanical characteristics of cartilaginous, fibrous, and bony tissues. Examination of normal and abnormal stress situations. Connective tissue growth processes, normal physiology, and repair mechanisms analyzed in conjunction with musculoskeletal injuries and effects of exercise. Concurrently scheduled with course C252A-B.

153. Dissection Anatomy. (4) Lecture, two hours; laboratory, six hours. Requisite: course 111B. Departmental application required. Study and dissection of upper and lower extremities of human cadavers; dissection of thorax and abdomen limited to musculature and cardiovascular supply.

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 messengers such as cyclic AMP and calcium. Integration of these concepts with variety of physiological processes such as stress, growth, and hormone action. Examination of growth factors and their role in cellular proliferation. Contemporary scientific research articles used as basis for material presented. Students expected to present journal article for discussion. Letter grading.

155. Development and Structure of Musculoskeletal System. (4) 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 each of these levels to understand organization and physiological behavior of the intact system.

156. Molecular Mechanisms and Therapies for Muscular Dystrophy. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 111A (may be taken concurrently). Life Sciences 4 with grade of B or better. Causes and pathogenesis of Duchenne muscular dystrophy and some fundamental scientific findings using original scientific research to explore the disease. Examination of individual stages of pathogenic disease as method to develop critical expert-like thinking skills. Lectures based on experiments from primary scientific literature, and students are expected to understand genetic and phenotypic animal models of muscular dystrophy, to design experiments, and to predict outcomes from research data. Letter grading.

165. Comparative Animal Physiology. (4) Lecture, three hours; laboratory, three hours. Requisites: Life Sciences 1, 2, 3, 23L. Physiological response and function at molecular, cellular, system, and whole organism levels of variety of animals to range of environmental conditions. Major topics include neural and muscular structure and function, hormones, gas exchange, energetics, and sensory systems. Examination of wide variety of vertebrates and invertebrates to understand how animals solve physiological challenges presented by physical environment. Letter grading.

166. Animal Physiology. (6) Lecture, three hours; laboratory, five hours. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, 153A, Life Sciences 1, 2, 3, 23L, and Physics 1C and 4C (or 14C). Credit may be open for credit to students with credit for Ecology and Evolutionary Biology 170 or to Physiological Science majors. Introduction to physiological principles, with emphasis on organ systems and intact organisms. Letter grading.

167. Physiology of Nutrition. (4) Lecture, four hours. Limited to senior Physiological Science majors. Topics include physiological adaptation to starvation and physiological responses to oxidants/antioxidants, vitamins, minerals, photochemicals, and their relationship to common chronic diseases and physiology of fuel utilization during aerobic and anaerobic exercise. Letter grading.

M168. Ideas and Experiments in History of Physiology. (4) (Same as Neuroscience M168.) Lecture, three hours. Interaction of concepts and experimental techniques in physiology from 19th to latter 20th centuries, including art and circulation, hormones, nutrition and vitamins, brain, spinal cord, and peripheral nervous system, as well as development of physiology as scientific discipline. Discussion of weekly readings and presentations by students. Letter grading.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) (Formerly numbered Biological Chemistry 193.) Seminar, two hours. Limited to undergraduate fellows in Howard Hughes Undergraduate Research Program. Presentations of scientific data from primary research laboratories and from review. May be repeated for credit. P/NP grading.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A or M180A and M180B, or Molecular, Cell, and Developmental Biology M175A and M175B. Structure and function of sense organs. Adoption of quantitative and comparative approach to provide insight into evolution of sense organs in both invertebrates and vertebrates. 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 the necessary biological and environmental conditions for 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 intersect with those in fields of anthropology, biopsychology, linguistics, molecular genetics, neuroscience, and physiology. Letter grading.

177. Neuroethology. (5) Lecture, four hours; discussion, two hours. Requisite: course 111A or M180A. Physical properties of animal signals and physiological mechanisms underlying their generation. Topics include classical neuroethological models: acoustic and vibration communication in vertebrates, sound localization in owls, electro-sensing and electromechanical vibration in electric fish, and neurobiology of bird song. Letter grading.


M180A. Cellular and Systems Neurosciences. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 38A (14C may be taken concurrently), Life Sciences 2, Physics 1B or 18B or 6B or
6BH. Not open for credit to students with credit for Physiological Science 111A. For Neuroscience and Physiological Science majors, grade of C– or better is required for course placement in M101A or M101B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how arises toward control of information and control movement. P/NP or letter grading.

M180B. Molecualr and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requirements: corequisites for Molecualr Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychology 115, Life Sciences majors, have taken concurrently.) 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 neurobiology. P/NP or letter grading.

M180C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requirements: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychology 115, Life Sciences majors, have taken concurrently.) Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M201, and Psychology M117J.) Lecture, three hours. Requirements: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A) or Psychology 115. Underlying brain systems involved in psychiatric symptoms and neurological disorders, including schizophrenia, depressive disorder, obsessive-compulsive disorder. Principles of molecular, cellular, and behavioral bases. Individual contract required. P/NP or letter grading.


191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 198B. Limited to neuroscience and physiological science honors program students. Designed for juniors/seniors and required of departmental honors students. Presentation of primary paper from physiology literature. Reading and critical evaluation of literature. Presentation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Assistants. (3) Seminar, two hours; additional hours in laboratory setting, to be arranged. Requirements: corequisites for Molecualr, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychology 115, Life Sciences majors, have taken concurrently.) Training and supervised practicum 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.

193. Journal Club Seminars: Physiological Science. (3) Seminar, two hours. 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) Formerly numbered 194A.) Seminar, two hours. Required of undergraduate students in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (1) Seminar, two hours. Corequisite: course 195A or B or C or D or E or F or G or H or I or J or K or L or M or N or O or P or Q or R or S or T or U or V or W or X or Y or Z or (Same as Neuroscience M201F and Neuroscience M202.) Lecture, four hours; discussion, 90 minutes. Requirements: course 193.) Discussion of specific research methods and recent 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. Requirements: courses 111A, 111B, Corequisite: course 193. Limited to junior/senior physiological science honors program students. Directed independent investigation of 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. Corequisite: course 198A. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Continued reading and research that culminate in final honors thesis. Only 4 units of course 198B or 3 units of course 199 and 1 unit of course 193 may be applied toward elective requirements for major. May be repeated for credit. Individual contract required. Letter grading.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Corequisite: course 198B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Physiological Science. (2 to 4) Tutorial, 12 hours. Requirements: courses 111A, 111B. Corequisite: course 193. Limited to Physiological Science majors with advanced junior standing and 3.0 grade-point average in major, or seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Course application must be submitted to undergraduate affairs chair during first week of classes. Only 3 units of course 199 may be applied toward elective requirements for major. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Advanced Experimental Statistics. (4) (Same as Biostatistics M220.) Lecture, four hours. 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 M202.) Lecture, three hours; discussion, two hours. Requirements: course 111A or M180A or Physics 6B, 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, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.


CM204. Human Physiological Systems for Bioengineering I. (4) (Same as Bioengineering 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/organ 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 CM102. Letter grading.


211. Exercise Cardiovascular Physiology. (4) Attention to cardiovascular adaptations to acute exercise as well as adaptations associated with regular exercise training.

M215. Molecular and Cellular Foundations of Physiology. (8) (Same as Molecular, Cellular, and Integrative Physiology M215.) Lecture, three hours; discussion, two hours. Application of molecular and cellular approaches to systems level questions. Basic foundation for study of major organ systems, with emphasis on levels of organization from molecular to macroscopic. Letter grading.

C226. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requirements: course 111A and 111B, or M180A and M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or
circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostasis of body systems and functions on nervous system. Concurrently scheduled with course C126. Letter grading.


C244. Neural Control of Physiological Systems. (5) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C144.


263. Neuronal Mechanisms Controlling Rhythmic Movements. (4) Lecture, four hours. Requisite: course M145. Advanced topics on brainstem mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on cellular neurophysiology and interaction between neuronal networks. Introduction to primary literature and techniques used in these areas. Students expected to critically evaluate data and conclusions drawn. S/U or letter grading.

270A-270B. Modern Concepts in Physiology. (4) Lecture, two hours; discussion, two hours. Study and evaluation of current literature. Study of foundations of modern techniques in physiology research, analysis of research design. Letter grading.

270A. Enforced requisite or corequisite: course 111A. Foundation course for experimental study of principles of muscular and neural physiology and cellular and systems neuroscience, including factors controlling locomotion, behavior, reticulo-neuronal circuits, somatosensory regulation, special senses, cortical functions, and neural plasticity. 270B. Enforced requisite or corequisite: course 111B. Foundation for experimental study of principles of systems physiology, including endocrinology, transport physiology, and neural, cardiovascular, and pulmonary physiology.


289. Introduction to Integrative Biology and Physiology. (2) Seminar, one hour. Limited to departmental graduate students. Introduction to departmental faculty and department organization. Corequisite: three laboratory rotations at end of which they must select one research mentor. S/U grading.

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, neuroendocrinology, or behavioral physiology. S/U 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.


292A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Seminar, one hour. Requisites: courses 136, 260. Selected topics on muscle determinants of movement, metabolic aspects of exercise, and mechanics of connective tissue. Students required to present two-hour seminar. S/U or letter grading.

294. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2 or undergraduate degree in science. Critical examination and discussion of recent data and publications that form the basis for new function. Student presentations, readings, and participation in discussions required. S/U grading.


296. Research Seminar: Physiological Science. (2) Review of literature, discussion of original research, and analysis of current topics in physiological science. May not be applied toward M.S. or Ph.D. 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 morphogenesis. Weekly presentation seminar 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 3) Preparation: concurrent UCLA graduate program advisor or graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

506. Individual Studies for Graduate Students. (2 to 8) Tutorial, to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate adviser, and graduate and graduate committee chair must be submitted prior to end of second week of class. Eight units may be applied toward degree requirements for M.S. or Ph.D. degree, provided that students enroll in different four-unit 596 courses in different laboratories under supervision of different mentors. Term paper required for letter grade, S/U or letter grading.

507. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 16) Tutorial, to be arranged with faculty member serving as student's comprehensive examination chair or faculty member serving as student's comprehensive examination chair or Ph.D. committee chair. May not be applied toward M.S. or Ph.D. course requirements. May be repeated when necessary. S/U grading.

508. Research for and Preparation of M.S. Thesis. (2 to 16) Tutorial, to be arranged with faculty member serving as student's thesis committee chair. May not be applied toward M.S. course requirements. May be repeated as necessary. S/U grading.
International and Area Studies
Interdepartmental Program
College of Letters and Science

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Namhee Lee, Ph.D. (Asian Languages and Cultures)
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Helen M. Rees, Ph.D. (Ethnomusicology)
Bonnie Taub, Ph.D. (Community Health Sciences, Health Policy and Management)
Kevin B. Terraciano, Ph.D. (History)
Michael F. Thies, Ph.D. (Political Science)

Scope and Objectives
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.

The IDP also offers a series of area studies minors which allow students to focus their interest in a particular region of the world.

Undergraduate Study

Students considering a major or minor in the interdepartmental program should consult the academic counselor 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 academic counselor.

The majors offered in International and Area Studies are designated capstone majors. Students majoring in African and Middle Eastern Studies, Asian Studies, European Studies, and Latin American Studies must complete a capstone seminar or travel 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.

African and Middle Eastern Studies B.A.
Capstone Major
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.

Admission
Admission to the African and Middle Eastern Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

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 minimum requirements does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

African and Middle Eastern Studies Premajor
Incoming freshman and transfer students may be admitted as African and Middle Eastern Studies premajors on acceptance to UCLA. Premajors must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from Afrikaans 40, Art History 55A, History 9D, 10B, 97F, 97J, Middle Eastern Studies 50C, Portuguese 40A, or Theater 4, (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 9, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 25, 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., African Languages 2C, 8C, 12C, 16, 18, 26, 32C, 36, 42C, 46, 62C, Arabic 102C, Armenian 102C, 105C, Hebrew 102C, Iranian 102C, Turkic Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the African and Middle Eastern Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admission/transferselection.html for up-to-date information regarding transfer selection for admission.

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper division courses divided among area studies and international themes courses. To count as one 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.


599. Research for and/or Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. May not be applied toward Ph.D. course requirements. May be repeated as necessary; S/U grading.
Admission

Admission to the Asian Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

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 minimum requirements does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Asian Studies Premajor

Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 56A, 56B, Asian 70A, 70B, 70C, Chinese 50 (or 50W), M60 (or M60W), General Education Clusters 25A, History 9A, 9C, 9E, 9H (or 11BH), 97G, 97M, 97N, International and Area Studies 31, 33, Japanese 50, 70, Korean 50, M60, South Asian M60, Southeast Asian M60, or 90, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50P), Sociology 1, (4) two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one related foreign language sequence through the intermediate level (e.g., Chinese 6 or 6A, Filipino 6, Hindi-Urdu 6, Indonesian 6, Japanese 6, Korean 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Asian Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

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Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major


Asian Studies B.A.

Capstone Major

The Asian Studies major allows students to analyze the area or a subgroup (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

**European Studies B.A. Capstone Major**

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.

**Admission**

Admission to the European Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

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 minimum requirements does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

**European Studies Premajor**

Incoming freshman and transfer students may be admitted as European Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

**Preparation for the Major**

Required: (1) International and Area Studies 1, (2) one area studies course from Central and East European Studies 91, Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G, French 12, 14 (or 14W), 41, 60, German 50B, 57, 59, 61A through 61D, 62W, 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 9, Comparative Literature 1D (or 2D Turner or 4DW), Ethnomusicology 5, 25, 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, 15, 25, 29, 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. Each course must be taken for a letter grade.

**Transfer Students**

Transfer applicants to the European Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://admissions.ucla.edu/prospect/admissions.htm for up-to-date information regarding transfer selection for admission.

**The Major**

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper division courses divided among area studies and international themes courses. 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.


**Latin American Studies B.A. Capstone Major**

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.

**Admission**

Admission to the Latin American Studies major is by application only. To be eligible to apply, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.


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 a 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**: French 114A, 114B, 115, 116, 117, 118, 169, German 101, 169, 170, 171, 172, Italian 102A, 102B, 101A, 103A, 103B, 110, 113, 114A, 114B, 116A, 116B, 118, 119, 140, Russian 124C, 124D, 124G, C124N, 124P, 124T, Scandinavian 142A, 143C, 152, 154 or **social sciences group 2**: History 121A, 121B, 121C, 122A, 122B, 122C, 125A, 126, Political Science 111C.
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 minimum requirements does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

**Latin American Studies Premajor**

Incoming freshman and transfer students may be admitted as Latin American Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

**Preparation for the Major**

**Required:** (1) International and Area Studies 1, (2) one area studies course from History 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 9, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 25, 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 7, 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. Each course must be taken for a letter grade.

**Transfer Students**

Transfer applicants to the Latin American Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of Fall Quarter of their junior year.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper division courses divided among area studies and international themes courses. 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.


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 focuses 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 C117A through 117E, Chicana and Chicano Studies M105D, M105E, 109, 142, Ethnomusicology M116, Portuguese 143A or social sciences group 2: Anthropology 114P, 114R, Chicana and Chicano Studies M119, M159B, 184, M187, History 157B.

**Honors Program**

The honors program is designed to offer highly motivated students pursuing one of the International and Area Studies majors (African and Middle Eastern Studies, Asian Studies, European Studies, Latin American Studies) the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

**Admission**

To enter the honors program, students must (1) have completed all preparation for the major 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. Consult the academic counselor for further 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.

**African and Middle Eastern Studies Minor**

The African and Middle Eastern Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, and society of the Africa and the Middle East from an interdisciplinary and modern perspective.

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.

**Required Lower Division Courses** (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, 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, Middle Eastern Studies 50C, or Theater 4) 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 C104C, Comparative Literature M148, M162, Ethnomusicology 161N (must be taken twice to equal one 4-unit course), Hebrew M113, C140, Iranian 141, 142, Islamics 151, Jewish Studies M142, M144, 175, (2) two social sciences group 1 courses from Anthropology 133P, M171P, 176, Geography 187, 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 to 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 M101A, M101B, 104A, Hebrew 130, 135, History M103A, M103B, 105A, 105B, 106A, 107A, 107D, 111A, 111B, 116A, 116B, Iranian M110A, M110B, M110C, 120, 131, 140, Islamics M110, 130, Jewish Studies M150A, M150B, M151A, M155, M152A, M152B, M152C.

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. Successful completion of the minor is indicated on the transcript and diploma.

African Studies Minor

The African Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Africa from an interdisciplinary and modern perspective.

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.

Required Lower Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, 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 Afrikaans 40, Art History 55A, Ethnomusicology 20B, French 60, History 10B, 97J, or Portuguese 40A) 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 Afrikaans 135, Art History 118C, C119C, C119D, 119E, Ethnomusicology 136A, C136B, 161E (must be taken twice to equal one 4-unit course), French 121, 142, World Arts and Cultures 134, 135, (2) two social sciences group 1 courses from Anthropology 133P, 171, M171P, Geography 122, 135, History 164B through 164E, 166B, 167A, 167B, 167C, 168B, Political Science 151A, 151B, 151C, 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, Art History M101A, M101B, French 160, Geography 114, History M103A, M103B, 166A, 168A, or World Arts and Cultures C139.

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. Successful completion of the minor is indicated on the transcript and diploma.

East Asian Studies Minor

The East Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective.

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.

Required Lower Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, 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 56B, Asian 70A, 70B, 70C, Chinese 50, 50W, M60, M60W, General Education Clusters 25A, History 9C, 11B, 97G, International and Area Studies 33, Japanese 50, 70, Korean 50, or M60) toward the international 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 116N, 116P, Art History 114C, 114E, 114G, C115D, C115E, C115F, C140A, C140C, Asian American Studies 111, 113, 121, 122B, 130A, M130C, 131A, 131B, 131C, 132A, Chinese C138, 140A through 140D, M135, M137, 182, M183, 184, 186, 191A, History 152, 170A, 172B, Japanese 140A, 140B, 140C, C149, 165, 172, C173, 191A, Korean 150, 175, 176, 180A, 180B, 184A, or 191A.

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. Successful completion of the minor is indicated on the transcript and diploma.
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European Studies Minor
The European Studies minor is designed for
students who wish to augment their major with
concerted study of the history, culture, and society of Europe from an interdisciplinary and
modern perspective.
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.
Required Lower Division Courses (13 to 15
units): International and Area Studies 1 and two
international societies and cultures courses from
Anthropology 9, Comparative Literature 1D (or
2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 2B, 22,
Political Science 50 (or 50R), Sociology 1, World
Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from
Comparative Literature 1C, 2CW, 4CW, Dutch
10, English 88G, French 12, 14, 14W, 41, 60,
German 50B, 57, 59, 61A through 61D, 62W,
History 1C, 1CH, 97C, International and Area
Studies 40, Italian 42B, 46, 50B, Portuguese
40A, Romanian 90, Russian 25, 25W, 30, 31, 32,
90B, 90BW, Scandinavian 50, 50W, Slavic 90, or
Spanish 42) toward the international societies
and cultures preparation requirement.
Required Upper Division Courses (20 to 25
units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1
courses from Art History 110A through M110D,
Comparative Literature C163, C164, Dutch
113, 131, English 115B, 164A, 164B, 164C,
171B, 171C, Ethnomusicology 133, 161C (must
be taken twice to equal one 4-unit course),
Film and Television 106B, French 114C, 119,
120, 131, 132, 138, 139, M140, 141, German
102, 103, 104, 110, 112, 160, 161, 162, 164,
165, 166, 173, 174, Italian 102C, 120, 121, 150,
M158, Russian 107B, 120, 121, 122, M127,
128, 130A, 130B, 130C, 131, M132, 140A,
140B, 140C, Scandinavian C141A, 141C,
CM144A, 155, 156, 157, 161, C163A, C163B,
C163C, 173A, C174A, 174B, C180, Slavic 125,
Yiddish 131A, 131B, (2) two social sciences
group 1 courses from Economics 181, Geography 152, 183, History 120A through 120D,
121D, 121E, 121F, 122F, 123B, 123C, 124B,
124C, 125B, 125C, 125D, 127B, 127C, 127D,
128C, 129B, 131A, 131B, 134B, 134C, 135C,
Collegium 173A, Political Science 127A, 128A,
128B, 153A, 156A, 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: French
114A, 114B, 115, 116, 117, 118, 169, German

101, 169, 170, 171, 172, History 121A, 121B,
121C, 122A, 122B, 122C, 125A, 126, Italian
102A, 102B, 103A, 103B, 110, 113, 114A,
C124N, 124P, 124T, Scandinavian 142A, 143C,
152, or 154.
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. Successful completion of the minor is indicated on the
transcript and diploma.

Latin American Studies
Minor
The Latin American Studies minor is designed
for students who wish to augment their major
with concerted study of the history, culture,
and society of Latin America from an interdisciplinary and modern perspective.
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.
Required Lower Division Courses (13 to 15
units): International and Area Studies 1 and
two international societies and cultures
courses from Anthropology 9, Comparative
Literature 1D (or 2DW or 4DW), Economics 1,
2, Ethnomusicology 5, 25, 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 General Education
Cluster 26A, History 8A, 8AH, 8B, 8C, 97E, International and Area Studies 50, Portuguese
40B, 46, or Spanish 44) toward the international societies and cultures preparation
requirement.
Required Upper Division Courses (20 to 25
units): Five area studies group 1 courses as
follows: (1) two humanities and arts group 1
courses from Art History 110G, C110H, C110I,
118B, Comparative Literature 177, English
135, Ethnomusicology 107, M108A, 108B,
161K (must be taken twice to equal one 4-unit
course), Film and Television 106C, Portuguese
130A, 130B, 141B, 142A, 142B, Spanish 120,
World Arts and Cultures C139, (2) two social
sciences group 1 courses from African American Studies M154C, M154D, M178, Anthropology 173Q, 174P, Chicana and Chicano
Studies 111, 117, M125, C132, C141, 143,
151, 169, Community Health Sciences 132,
Gender Studies 129, M144, M147C, Geography 114, 182A, 182B, History 159, 160A,
160B, 162A, 162B, 162C. Political Science
124C, 154A, 154B, Public Health M106, Sociology 186, 191J, and (3) one additional elec-

tive course selected from the group 1 lists
above or from the group 2 list below.
The area studies electives listed above (group
1) focus on contemporary issues of that region
after 1750. Students may substitute a maximum of one upper division course with focus
on earlier historical aspects of the region or on
diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 114P, 114R, Art History C117A through
117F, Chicana and Chicano Studies M105D,
M105E, 109, M119, 142, M159B, 184, M187,
Ethnomusicology M116, History 157A, 157B,
or Portuguese 143A.
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. 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.
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.
Required Lower Division Courses (13 to 15
units): International and Area Studies 1 and
two international societies and cultures
courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2,
Ethnomusicology 5, 25, 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 56A, 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 C115A, C180C, Asian
151, 162, 163, Comparative Literature C178,
Ethnomusicology 146, 147, 161F (must be taken
twice to equal one 4-unit course), South Asian
150, 155, (2) two social sciences group 1
courses from Asian American Studies M172C,
Gender Studies M164A, History 174B, 174C,
175A, 175C, and (3) one additional elective
course selected from the group 1 list above or
from the group 2 list below.


The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 116, Art History 114A, 114D, Asian 164, Asian American Studies M172A, 172B, History 174A, South Asian CM160, or 185. 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. 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. 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.

Required Lower Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, Geography 3, 4, 6, History 121, 122B, 133, 134, History 152, 176A, 176D, or Vietnamese 180A.

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. Successful completion of the minor is indicated on the transcript and diploma.

Study Abroad

All majors and 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 regional or the world. Consult the academic counselor for more information on available programs.

More information about travel abroad programs is available through the UCLA International and Area Studies. (4-4-4)

Southeast Asian Studies Minor

Required Lower Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Ethnomusicology 161B (must be taken twice to equal one 4-unit course), South Asia 130, 135, 140, 157, Theater 102B, Vietnamese M155, 180B, (2) two social sciences group 1 courses from Asian American Studies M171D, 171E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science 158, and (3) one additional elective course selected from the group 1 list above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Art History 114F, Asian American Studies 111, 113, 121, 122B, 133, 134, History 152, 176A, 176D, or Vietnamese 180A.

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. Successful completion of the minor is indicated on the transcript and diploma.

Study Abroad

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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. Consult the academic counselor for more information on available programs.

More information about travel abroad programs is available through the UCLA International and Area Studies. (4-4-4)

Southeast Asian Studies Minor

Required Lower Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, 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 56A, History 9E, 97M, International and Area Studies 31, Southeast Asian M60, or 90) toward the international societies and cultures preparation requirement.

Required Upper Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Ethnomusicology 161B (must be taken twice to equal one 4-unit course), South Asia 130, 135, 140, 157, Theater 102B, Vietnamese M155, 180B, (2) two social sciences group 1 courses from Asian American Studies M171D, 171E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science 158, and (3) one additional elective course selected from the group 1 list above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Art History 114F, Asian American Studies 111, 113, 121, 122B, 133, 134, History 152, 176A, 176D, or Vietnamese 180A.

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. Successful completion of the minor is indicated on the transcript and diploma.

Study Abroad

All majors and 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. Consult the academic counselor for more information on available programs.

More information about travel abroad programs is available through the UCLA International and Area Studies. (4-4-4)

Southeast Asian Studies Minor

Required Lower Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 9, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, 25, 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 56A, History 9E, 97M, International and Area Studies 31, Southeast Asian M60, or 90) toward the international societies and cultures preparation requirement.

Required Upper Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Ethnomusicology 161B (must be taken twice to equal one 4-unit course), South Asia 130, 135, 140, 157, Theater 102B, Vietnamese M155, 180B, (2) two social sciences group 1 courses from Asian American Studies M171D, 171E, Gender Studies M164A, History 176B, 176C, 176E, 177A, 177B, 185B, 185C, Political Science 158, and (3) one additional elective course selected from the group 1 list above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Art History 114F, Asian American Studies 111, 113, 121, 122B, 133, 134, History 152, 176A, 176D, or Vietnamese 180A.

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. Successful completion of the minor is indicated on the transcript and diploma.

Study Abroad

All majors and 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. Consult the academic counselor for more information on available programs.

More information about travel abroad programs is available through the UCLA International and Area Studies. (4-4-4)
199. Directed Research in International and Area Studies. (4) [Formerly numbered East Asian Studies 199.] Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be applied toward requirements via petition. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

INTERNATIONAL DEVELOPMENT STUDIES

Interdepartmental Program
College of Letters and Science

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Michael F. Lofchie, Ph.D., Chair

Faculty Committee

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César J. Ayala, Ph.D. (Sociology)
Timothy F. Brewer, M.D., M.P.H. (Medicine)
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Michael L. Ross, Ph.D. (Institute of the Environment and Sustainability, Political Science)
Eric S. Sheppard, Ph.D. (Geography)
Mary A. Yeager, Ph.D. (History)

Scope and Objectives

The International Development Studies major provides an opportunity for interdisciplinary study of the critical issues of the developing world, such as poverty, human rights, global health, civil war, economic growth, and global inequality. The curriculum is intended to familiarize students with some of the more important political, economic, social, and cultural realities of the developing regions of the world, such as Asia, Eastern Europe, Africa, the Middle East, and Latin America. The broad intellectual goal of the program is to help students understand why there are such vast socioeconomic disparities between the wealthier and poorer regions of the world and what the broader implications of these disparities are.

An understanding of these issues is indispensable for both practical and scholarly purposes. While encouraging the acquisition of theoretical and conceptual knowledge, the program is equally concerned with its practical application to global realities. The program, therefore, encourages field experience involving travel, study, and/or work in regions in the developing world.

Undergraduate Study

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.

International Development Studies B.A.

Capstone 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. 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.

International Development Studies Premajor

Incoming freshman and transfer students may be admitted as International Development Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of Fall Quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) Two courses from Economics 1, 2, Geography 4; (2) one statistics course from Economics 41, Political Science 6, 6R, Statistics 10, or 12; (3) three social sciences/area studies courses, each from a different category, selected from (a) Anthropology 9, (b) Gender Studies 10, (c) Geography 3, 5, 6, (d) Global Studies 1, (e) History 8A, 8B, 8C, 9A, 9D, 9E, 10B, 10BW, 11B, 22, International and Area Studies 31, 50, (f) Political Science 20, 50, 56R, (g) Sociology 1; and (4) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the International Development Studies premajor 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 at http://www.admissions.ucla.edu/prospect/admiss_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Each course must be taken for a letter grade. Students must earn a grade of C or better in International Development Studies 100A, M100B, and 150; 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.

Required: (1) International Development Studies 100A, M100B, 150, 191; (2) one research methodology course from Anthropology 131, 139, Asian American Studies 103, 104A, 105, M108, 142A, 142D, 187A, 191A, Chicana and Chicano Studies M119, 123, 129, Economics 103, Education C126, Geography 163, Political Science 170A, Sociology 106A, 110, 113, Statistics 112, Urban Planning M122; (3) three social and critical theory courses, each from a different department, from Anthropology 130, 150, 153P, 161, 167, Economics 111, 112, Environment M122, M133, M161, Gender Studies 168, Geography 110, M115, 121, M128, M132, 133, 140, 142, 148, 155, 157, Political Science 122A, M122B, 124A, 150, 167D, 168, Sociology 101, M115, 116, 182, 183, 191D, Urban Planning 121, CM166; (4) two regional courses, either from the same or separate developing regions of the world (East Asia and East Central Asia, Eastern Europe and West Central Asia, Latin America and Caribbean Basin, Middle East and North Africa, South and Southeast Asia and Pacific Islands, Sub-Saharan Africa) and one disciplinary elective listed below:

East Asia and East Central Asia: Anthropology 175Q, Asian American Studies 171A, 171C, Chinese 152, Communication Studies 183, Gender Studies M170C, Geography 186, History 169B, 170B, M170C, 170D, Korean C151,
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 travel abroad programs is available through the UCLA International Education Office, 1332 Murphy Hall, (310) 825-4995, idpsinternational.ucla.edu. See http://iio.ucla.edu.

International Development Studies
Upper Division Courses
100A. Introduction to Development Studies: Economic Development and Culture Change. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: some beginning experience in social sciences at college level. Designed for juniors/seniors. Broad historical and theoretical introduction to liberal and Marxist traditions in development studies, with a focus on state, market, culture, ideology, and politics of professionalized knowledge. Balance of general trends and positions with selected case studies in developing nations. Letter grading.

191. Variable Topics Research Seminars: International Development Studies. (4) Seminar, three hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to serve as undergraduate course assistants in international development studies courses. Students assist in preparation and presentation of materials and development of innovative programs with guidance of faculty members. Consult academic counselor for further information. May not be applied toward major requirements. May be repeated for credit. P/NP grading.

198A-198B-198C. Honors Research in International Development Studies. (4-4-4) Tutorial, to be arranged. Preparation: 3.5 grade-point average in courses for major, formal application to honors program. Enforced requisites: courses 100A, M100B. Limited to junior/senior International Development Studies majors. May be repeated for credit. Individual contract required. 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 requisite: course 198B. Final drafting and submission of honors thesis under direct supervision of faculty member. Letter grading.

199. Directed Research in International Development Studies, (4) Tutorial, to be arranged. Limited to advanced undergraduate junior/senior International Development Studies majors. Supervised intensive directed research program in which students conduct interdisciplinary research under guidance of faculty member. May not 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.

ISLAMIC STUDIES
Interdepartmental Program
College of Letters and Science
UCLA
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Box 951487
Los Angeles, CA 90095-1487
(310) 206-6571
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http://web.international.ucla.edu/institute/idps/islamicstudies/

Khaleed M. Abou El Fadl, M.A., J.D., Ph.D., Chair
Faculty Committee
Khaleed M. Abou El Fadl, M.A., J.D., Ph.D. (Law)
Asli Ü. Bâli, M.Phil., J.D., Ph.D. (Law)
Ali Behdad, Ph.D. (Comparative Literature, English)
Irem A. Bierman, Ph.D. (Near Eastern Languages and Cultures)
Michael D. Cooperson, Ph.D. (Near Eastern Languages and Cultures)
Scope and Objectives

The Islamic Studies Interdepartmental Program provides opportunities for study of the major languages, literatures, history, culture, and religious traditions of the populations of regions where Islamic-influenced civilizations have had, or continue to have, the greatest impact. Within a broad interdisciplinary framework of the humanities, social sciences, and professional schools (e.g., law, public health, the arts), students are encouraged to construct individualized curricula that prepare them to carry out cutting-edge dissertation research leading to the Ph.D. degree.

The Master of Arts and Ph.D. degrees in Islamic Studies are designed primarily for students pursuing academic careers. The degree programs also prove useful for students who plan to live or work in predominantly Muslim areas or those whose careers may be enhanced by a knowledge of Muslim people, languages, and institutions.

The undergraduate major in this discipline is called African and Middle Eastern Studies. For details, see International and Area Studies earlier in this section.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa/library/pgmjrnto.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Islamic Studies Program offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Islamic Studies. A concurrent degree program (Islamic Studies M.A./Public Health M.P.H.) is also offered.

Islamic Studies

Graduate Courses

291A. Variable Topics in Islamic Studies. (4) Seminar, three hours. Selected topics on Islam. May be repeated for credit with topic change. S/U or letter grading.

ITALIAN

College of Letters and Science

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Thomas J. Harrison, Ph.D., Chair

Professors
John A. Agnew, Ph.D.
Massimo Ciavolella, Ph.D. (Franklin D. Murphy Professor of Italian Renaissance Studies)
Thomas J. Harrison, Ph.D.
Lucia Re, Ph.D., Dottore in Lettere

Professors Emeriti
Michael J.B. Allen, Ph.D., D.Litt.
Luigi Ballerini, Dottore in Lettere
Franco Bettì, Ph.D.
Marga Cottino-Jones, Ph.D., Dottore in Lettere
Edward F. Tuttle, Ph.D.

Associate Professor
Peter J. Stacey, Ph.D.

Lecturer S.O.E.
Eliisa A. Tognozzi, Ph.D.

Lecturer
Hoang T. M. Truong, Ph.D.

Scope and Objectives

Italian art and letters provide an invaluable key to understanding many facets of European civilization. Examined in its own right or studied comparatively, Italian culture offers unmatched rewards. The Department of Italian faculty members view transmitting the Italian language as inseparable from transmission of the culture, so students consider in depth virtually all aspects of Italian civilization. After their linguistic initiation, ideally including a year abroad, students may pursue advanced studies in the department exclusively and through a wide range of interdisciplinary programs.

Bachelor of Arts degrees are offered in Italian and in Italian and Special Fields. Graduate study leads to the Master of Arts degree in Italian (with specializations in literature and language) and to the Ph.D. (literature specialization).

Undergraduate Study

The Italian and Italian Special Fields majors are designated capstone majors. Students are required to conceptualize, design, and complete an interdisciplinary research project or thesis. Through the capstone experience, students demonstrate their mastery of an area of Italian culture, as well as their skills in identifying and analyzing primary sources, integrating what they have learned in the course of their major studies, and presenting their work to peers under the guidance of a faculty mentor who facilitates discussion and peer review.

Italian B.A.

Capstone Major

The program of studies leading to the Bachelor of Arts in Italian consists of two distinct phases: preparation in the language and study of the literature and culture. While literature courses constitute the bulk of the program, good knowledge of the language is requisite to most upper division literature courses creditable toward the major in Italian. The uniqueness of Italian is stressed at all levels of study. Detailed information on programs and specific degree requirements is available from the department.

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, or 50B.

Transfer Students

Transfer applicants to the Italian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and one Italian civilization or culture course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admiss _tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper division Italian courses, including 100, 103A, 103B, 199B (se- nior capstone course), one medieval to 18th century course from 113 through 118, one Enlightenent to contemporary course from 119 through 125, and five elective courses from 113 through 191. With consent of the under- graduate adviser, students may substitute up to one each of Italian 195 and 199A and an upper division elective course from outside the department.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

Italian and Special Fields B.A.

Capstone Major

Students with special interests or professional goals may select the Italian and Special Fields major, with coursework divided between Italian and a collateral field. Study programs fulfilling requirements for the major have been developed with the departments and programs listed below.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

Italian and Special Fields B.A.

Capstone Major

Students with special interests or professional goals may select the Italian and Special Fields major, with coursework divided between Italian and a collateral field. Study programs fulfilling requirements for the major have been developed with the departments and programs listed below.

Majors who select courses taught in English must do additional work from the original Italian texts in consultation with the course instructor.

Transfer Students

Transfer applicants to the Italian and Special Fields major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and related courses in civilization, culture, history,
linguistics, literature, and closely related languages.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tchtml for up-to-date information regarding transfer selection for admission.

**Anthropology Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Anthropology 8 or 9, and 33.

**The Major**

**Required:** Italian 100, 103A or 103B, 180, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; five courses from Anthropology 111, 112, M115A, M115B, 130, 133Q, 135A, 135B, 135S, 135T, 139, M140, 141, 150 through M154Q, 161, 182 selected in consultation with the undergraduate adviser.

**Art History Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46; Art History 50 or 51, 54, 57.

**The Major**

**Required:** Italian 100, 103A or 103B, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from Art History M102F, M102G, M102H, 105A through 105D, 105F, 106A through 106D, C109A, 109C, 110A, 110B, 110F, 127, 150D selected in consultation with the undergraduate adviser.

**Classics Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Classics 10 or 20, 40W or 41W, and Greek 1, 2, 3 or Latin 1, 2, 3, or equivalent.

**The Major**

**Required:** Italian 100, 103A or 103B, 180, 199B (senior capstone course), and two courses from 113 through 191 selected in consultation with the undergraduate adviser; Greek 100 or Latin 100, one course from Classics 141 through 197, and one course from Greek 101A through 133 or Latin 101 through 133 (graduate seminars may be substituted for upper division author courses) selected in consultation with the undergraduate adviser.

**English Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; English Composition 3, English 4W, 10A, 10B, 10C.

**The Major**

**Required:** Italian 100, 103A or 103B, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; four courses from English 100 through 113A, 114 through 133, 139 through 183C selected in consultation with the undergraduate adviser.

**Film and Television Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, 46.

**The Major**

**Required:** Italian 100, 103A or 103B, 121, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from Film and Television 106A, 106B, 106C, 107, 108, 110A, 110C, 112 through 116, 193A selected in consultation with the undergraduate adviser.

**French Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46; French 1, 2, 3, 4, 5, 6, 12 or 14.

**The Major**

**Required:** Italian 100, 103A or 103B, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; one course from French 114A, 114B, 114C, and three courses from 115 through 142 selected in consultation with the undergraduate adviser.

**Gender Studies Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46; Gender Studies 10.

**The Major**

**Required:** Italian 100, 103A or 103B, M158, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; Gender Studies 110A or 110B, and five additional upper division courses from any of the gender studies course lists selected in consultation with the undergraduate adviser.

**History Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46; one course from History 1A, 1B, 1C, 88.

**The Major**

**Required:** Italian 100, 103A or 103B, 180, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from History 100, 102, 119A through 119D, 121A through 123B, 128A, 128B, 131A through M133B selected in consultation with the undergraduate adviser.

**Linguistics Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, Linguistics 20, and six terms of a second Romance language or Latin or equivalent.

**The Major**

**Required:** Italian 100, 103A or 103B, 180, 199B (senior capstone course), and two courses from 113 through 191 selected in consultation with the undergraduate adviser; Linguistics 103, 110, 120A, 120B, and one course from M146, M150, 165A, 165B, 170 selected in consultation with the undergraduate adviser.

**Music History Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, two courses from Music History M10A, M10B, M10C.

**The Major**

**Required:** Italian 100, 103A or 103B, 125, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; five courses from Music History 125D, 125E, 125F, 135A, 135B, 135C, 191A through 191G selected in consultation with the undergraduate adviser.

**Philosophy Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; one course from Philosophy 1 through 31.

**The Major**

**Required:** Italian 100, 103A or 103B, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; Philosophy 100A, 100B, 100C, and three courses from M101A through 185 selected in consultation with the undergraduate adviser.

**Political Science Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Political Science 10, 20.

**The Major**

**Required:** Italian 100, 103A or 103B, 199B (senior capstone course), and four courses from 113 through 191 selected in consultation with the undergraduate adviser; six courses from Political Science M111A through 113A, 116A through 119, 137A, 139, 153A selected in consultation with the undergraduate adviser.

**Portuguese Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Portuguese 1, 2, 3, 25, 46.

**The Major**

**Required:** Italian 100, 103A or 103B, 180, 199B (senior capstone course), and three courses from 113 through 191 selected in consultation with the undergraduate adviser; three courses from Portuguese 130A through 191 selected in consultation with the undergraduate adviser.

**Spanish Field**

**Preparation for the Major**

**Required:** Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Spanish 1, 2, 3, 4, 5, 25 (or equivalent as determined by placement test), 42 or 44.
Italian Minor

To enter the Italian minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Courses (12 units):
Italian 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper Division Courses (20 units):
Italian 100 and four additional Italian courses.
Three of the four courses must be taught in Italian.

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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Italian offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Italian.

Italian Lower Division Courses

1. Elementary Italian—Beginning. (4) Lecture, five hours. P/NP or letter grading.

1G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement. S/U grading.


2G. Special Reading Course. (4) Readings, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement.


8A-BB-8C. Italian Conversation. (2-2-2) Seminar, three hours. Enforced requisite for course 8A: course 2; for 8B: course 3; for 8C: course 4. Each course may be repeated once for credit. P/NP or letter grading.

9. Intensive Italian. (12) Lecture, 20 hours. Intensive language program equivalent to first year of college Italian courses 1, 2, 3, and designed to develop basic language skills. Offered in summer only. P/NP or letter grading.

42A-42B-42C. Italy through Ages in English. (5-5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading. 42A. Early Modern Italy: Survey of Italy's unique contribution to Western civilization in development of humanist and Renaissance learning, political and philosophical thought, science, architecture, and arts in cities such as Venice, Bologna, Florence, Rome, and Naples. Works by Giotto, Michelangelo, Leonardo, Raphael, Machiavelli, Galileo, and Vico. 42B. Modern and Contemporary Italy. Cultural and political developments from 18th century to present. Topics include Beccaria and opposition to death penalty and absolutism; Garibaldi, Italian Risorgimento, national liberation, and unification; Lombaro and criminology in new Italy; Mussolini and Fascism; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today's multiethnic Italy. Assigned works include relevant literature and memoirs, music, and film, futurist and fascist art, and organized crime fiction and film. 42C. Food and Literature in Italy. Profile of Italian history and culture through analysis of gastronomic and literary texts. Special emphasis on late Middle Ages, Renaissance, and Risorgimento.

46. Italian Cinema and Culture in English. (5) Lecture/reading, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation's prime artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, comedy, integration, family networks, and neorealism. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading. 50A. Middle Ages to Baroque. Leading philosophical, religious, and sociopolitical issues in Europe, examined in authors such as St. Francis, Dante, Boccaccio, Giotto, rise of Italian merchant class, 50B. Enlightenment to Postmodernity. Comparative study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and film. Works by Goldoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

Upper Division Courses


102A-102B-102C. Italian Cultural Experience in English. (4-4-4) Lecture three hours; study of cultural development of Italy. P/NP or letter grading. 102A. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Petrarca, Lorenzo de’ Medici, Machiavelli, Castiglione, Ariosto, and Tasso. 102B. Enlightenment to Postmodernity. Comparative study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and film. Works by Goldoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

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 Sant’Francis of Assisi, Dante, Boccaccio, Saint Catherine of Siena, Machiavelli, Giotto, Botticelli, Michelangelo, Leonardo, Caravaggio, Gaspara 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, Boccaccio, Rossini, Cammarano, Piranesi, Tiepolo, Leopardi, Manzoni, Pirandello, Aleramo, Marini, Boccioni, Modigliani, De Chirico, Calvino, Corti, Pasolini, Franca Rame, and Dario Fo. P/NP or letter grading.

110. Dante in English. (4) Lecture, three hours. Close study of one work of Dante and his place in the development of Italian literature. Particularly of his masterpiece, Divine Comedy, the archetypal medieval journey through the afterworld. P/NP or letter grading.

113. Dante’s La Divina Commedia. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of medieval philosophy, religion, and politics in La Divina Commedia, greatest literary achievement of the age. P/NP or letter grading.

114A-114B. Middle Ages. (4-4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. P/NP or letter grading. 114A. Tradition of Love from Sacred to Profane. Study of major love poets of all time (Dante, Dolce Stil Novo poets, and Petrarch) and their position between religious and courtly codes. 114B. Medieval Humor, Morality, and Society. Novelty of Boccaccio’s witty and comic masterpiece, Decameron, analyzed within context of moral and social codes of culture of the Middle Ages.

116A-116B. Italian Renaissance. (4-4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. P/NP or letter grading. 116A. Renewal of Art and Thought. Study of Quattrocento and its representatives in arts and humanities (i.e., Mantegna, Botticelli, Pico, Valla, and Ficino). 116B. Power and Imagination in Renaissance. Study of artistic world of Leonardo, 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.

118. Italian Enlightenment. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of philosophical and political prose, satiric poetry, and drama in 18th-century Italy. Writings by Vico, Metastasio, and Goldoni. P/NP or letter grading.

119. Italian Realism and Romanticism. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of literary trends and masterpieces in 19th-century Italy. Readings include realist novels and short stories of Leopardi, de Maupassant, and Dostoevsky, and the expression of themes of social and political unrest, patriotism, North-South conflicts, family, and gender relations. Romantic lyric poetry by Foscolo and Leopardi expressing emotions and reflecting on erotic desire, nature versus culture, temporality, death, and yearning for aesthetic perfection. P/NP or letter grading.

120. Modern and Contemporary Literature. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. 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, Ginzburg, Calvino, Fo, Eco, Celati, and Tabucchi. P/NP or letter grading.

121. Literature and Film. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Comparative study of specific literary works and their adaptation into film and of different techniques in two media and forms of expression. Texts include literary works, screenplays, and works on literary and film theory. P/NP or letter grading.

122. Italian Theater. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of works for stage from Renaissance to present, including examples of opera and questions pertaining to acting, staging, and performance. May include texts by Machiavelli, Ariette, Alfieri, Gozzi, Goldoni, Verdi, Puccini, D’Annunzio, Amelia Rosselli, Dacia Maraini, Dario Fo, and Franca Rane. P/NP or letter grading.

123. Modern Italian Cultural Studies. (4) Seminar, three hours. Enforced requisite: course 100. Taught in Italian. Seminar on various cultural aspects of modern and contemporary Italy. Examination of contemporary Italian food culture, fashion and design, photography and visual arts, mass media, politics, music, and sports. P/NP or letter grading.

124. Food and Literature in Italy. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. 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 slow food. Examination of relation of Italian traditions of food and eating with health, body, gender, community, politics, biodiversity, and environment. P/NP or letter grading.

125. Italian through Opera. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian language at advanced level through reading of libretti. Six masterpieces by Italian composers such as Barbiere di Siviglia, La Bohême, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, political, and cultural issues raised in each opera. P/NP or letter grading.


140. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structure, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Selects in 20th-century thought traced in writers of international fame, with focus on contemporary and stylistic experiments such as Umberto Eco’s The Name of the Rose, Pasolini’s The Ragazzi, Pirandello’s The Late Mattia Pascal, and Calvino’s The Cosmicomics. P/NP or letter grading.

151A. Modern屹lishen屹emet屹ory. (4) Lecture, three hours. Examination of portrayal of Asian culture in Italy and Italian culture in Asia, and ways in which Asia and Italy view each other through eyes of writers, travelers, and modern media. Discussion of how Italy has evolved from relatively homogeneous society into multinational country that includes growing Asian and Asian-Italian population. P/NP or letter grading.

152. Italy between Europe and Africa. (4) Lecture, three hours. Knowledge of Italian or background in Italian studies not required. Analysis and critical discussion of works by Italian, northern European, and African writers (including travelers and migrants) who from 18th century to present have seen or experienced Italian peninsula and islands as bridge between Europe and Africa, or mix of both. Readings include works by northern European and African authors about Italy, and one or two novels about Africa and southern Italy. P/NP or letter grading.

153. Women, Gender, and Sexuality in Italian Culture. (4) Same as Gender Studies M158. Lecture, three hours; discussion, one hour. Analysis of gender roles,imated masculinity, patriarchy, myths of Madonna and Latin lover, condition of women in Italian society through history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

180. History of Italian Language. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Main forces that have shaped literary or standard Italian and specific ways in which language has evolved. Tracing of its changing relations with other European languages and survey of effects wrought by historical events, changes in taste, and altered social functions. P/NP or 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, culture, and thought 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/senior. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Italian. (4) Tutorial, one hour. Limited to juniors/seniors. Development and completion of significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian. (2 to 4) Tutorial, three hours. Directed 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.

199B. Directed Capstone Research in Italian and Italian and Special Fields. (4) Tutorial, to be arranged. Requisites: courses 100, 103A or 103B, and at least three required courses for one field. Limited to seniors and Italian and Special Fields majors. Supervised individual research under guidance of faculty mentor. Capstone tutorial in which interdisciplinary paper (20 to 25 pages) is to be written in either Italian or English that requires students to synthesize their knowledge of Italian or Italian and one special field of study. Individual contract required. Letter grading.

Graduate Courses


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. La Divina Commedia. (4) Lecture, three hours. S/U or letter grading.

214B. Dante’s Other Works. (4) Lecture, three hours. S/U or letter grading.

214C. Petrarch’s Canzoniere. (4) Lecture, three hours. S/U or letter grading.

214D. Boccaccio’s Decameron. (4) Lecture, three hours. S/U or letter grading.

214E. Boccaccio’s Other Works. (4) Lecture, three hours. S/U or letter grading.

214F. The Boccaccio. (4) Lecture, three hours. Variable-content seminar on themes and issues of medieval literature, with coverage of authors such as St. Francis of Assisi or Jacopone da Todi. S/U or letter grading.
215A-215B. Studies in 15th-Century Literature. (4-4) Lecture, three hours. S/U or letter grading. 215A. Variable Topics. Variable-content seminar on themes and issues of 15th-century literature, with coverage of authors such as Pulci or Poliziano. 215B. Age of Lorenzo de' Medici and Poliziano.


216B. Ariosto and Renaissance Epic. (4) Lecture, three hours. S/U or letter grading.

216C. Tasso. (4) Lecture, three hours. S/U or letter grading.

216D. Renaissance Theater. (4) Lecture, three hours. S/U or letter grading.

216E. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Benvenuto. S/U or letter grading.


218A. French 17th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading.


218B. Affieri. (4) Lecture, three hours. S/U or letter grading.

218C. Goldoni. (4) Lecture, three hours. S/U or letter grading.

218D. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of 18th-century literature, with coverage of authors such as Vico or Ludovico. S/U or letter grading.


219A. Dosso. (4) Lecture, three hours. S/U or letter grading.

219B. Leopardi. (4) Lecture, three hours. S/U or letter grading.


219D. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaseo, or Nievo. S/U or letter grading.


221A. Variable Topics. (4) Lecture, three hours. Variable-content seminar on themes and issues of 20th-century literature, with coverage of authors such as D’Annunzio, Verga, Marinetti, and Pirandello. S/U or letter grading.

221B. Contemporary Poetry. (4) Lecture, three hours. Analysis of legacy of two major figures in Italian poetry from World War II—Ungaretti and Montale. Thorough examination of movements and individual poets active in the 1960s and 1970s. S/U or letter grading.

221C. 20th-Century Narrative to World War II. (4) Lecture, three hours. Assessment of turn-of-the-century narrative pattern (Giuseppe D’Annunzio) and analysis of radical innovations brought about by such towering figures as Pirandello, Svevo, Bernari, Marinetti, etc. S/U or letter grading.

221D. 20th-Century Narrative since World War II. (4) Lecture, three hours. 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. S/U or letter grading.

221E. Pirandello and Contemporary Theater. (4) Lecture, three hours. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage by important directors such as Streli, Ronconi, and the playwrights/actors themselves. Emphasis on ritualistic implications of the theatrical performance. S/U or letter grading.

222A-222B. Comparative Romance Historical Grammar. (4-4) Formerly numbered M222A-M222B.) Lecture, three hours. Each course may be taken independently. S/U or letter grading. 222A. Phonology. Principal sound changes from late Latin to main Romance dialects. 222B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Romance dialects.

223. Structures of Modern Italian. (4) Lecture, three hours. Descriptive analysis of basic features of standard Italian from synchronic, typologic vantage. Topical emphasis may vary annually, but core progression departs from phonology (e.g., syllable types, prosodic patterns, phrasal phonetics), moves through morphologic constituents, passing to sentence sequences (coordination, ellipses, etc.). S/U or letter grading.

224. Italo-Romance Dialectology. (4) Lecture, three hours. Differentiation of late spoken Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provençal). Consideration of present-day sociocultural persistence of these varieties.


M241. Seminar: Political Geography of Italy. (4) (Same as Geography M241.) Seminar, three hours, reading period, two hours. Topics in political geography with particular emphasis on Italy. May be repeated for credit. S/U or letter grading.

250A-250D. Comparative Literature. (4 each) Seminar, three hours. S/U or letter grading.


253A-253B-253C. Seminars: Chivalric Poetry in Italy, (4-4-4) Seminar, three hours. Relationship between genre and its French medieval sources, with study of its evolution in Italy through Pulci, Boiardo, Ariosto, and Tasso. S/U or letter grading.


255A-255B. Seminars: Baroque. (4-4) Seminar, three hours. S/U or letter grading.

255A-255B-256B. Seminars: 18th Century. (4-4) Seminar, three hours. S/U or letter grading.

257A-257B. Seminars: Romanticism. (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. Conspicuous diversity and specialization of Italian society articulated through class, gender, and ethno-linguistic groups to be studied. 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 time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other European countries’ and Hollywood’s cinema, 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.

M270. Seminar: Literary Theory. (5) (Same as Asian M251, Comparative Literature M294, English M270, French M270, German M270, Scandinavian M270, and Spanish M294.) Seminar, three hours. Advanced interdisciplinary seminar to explore philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. 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 the uniquely Italian literature topics covered in regular departmental graduate courses.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A-495B-495C. Teaching Italian at College Level. (2 to 4) Seminar, to be arranged. S/U grading.

495A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching proficiency-oriented instruction. May not be applied toward M.A. course requirements. 495B. Continuation of course 495A; study of contemporary issues in Italian language pedagogy. 495C. Effective use 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 9) 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.

599. Directed Individual Studies. (2 to 12) May be repeated twice for credit. S/U grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) S/U grading.


LABOR AND WORKPLACE STUDIES
Interdisciplinary Minor
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Jacqueline Leavitt, Ph.D. (Urban Planning)
Ching-Kwan Lee, Ph.D. (Sociology)

Labor and Workplace Studies / 441
Scope and Objectives

The Labor and Workplace Studies minor offers an opportunity to learn about the workplace and the social, political, and economic forces that influence it. The program emphasizes the institutions of the labor market, public policy, employment relations, unions, and working-class movements. It also explores issues of race, class, and gender in the workplace. The interdisciplinary approach gives students exposure to disciplines in addition to their own majors; students should plan to take courses from multiple departments, as disciplinary breadth is encouraged.

The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor and the workplace. Students are encouraged to plan, with the faculty adviser and minor coordinator, either a coherent integration of courses according to a thematic or subtopical investigation or, alternatively, a comprehensive survey of the main issues involved in the study of labor and the workplace.

Undergraduate Study

Labor and Workplace Studies Minor

The Labor and Workplace 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.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better), have completed 45 units, and file a petition with the faculty adviser and minor coordinator at the Center for Labor Research and Education, 1103E Ueberrroth Building. Students are encouraged to meet early with the faculty adviser and minor coordinator to discuss courses to be taken.


Labor and Workplace Studies

Lower Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (6-6-6) (Same as GE Clusters M24A-M24B-M24CW) 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. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and the role of labor unions 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.

Upper Division Courses

M114C. African American Political Thought. (4) (Same as African American Studies M114C and Political Science M180A) Lecture, three or four hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans, and the roles of ideas and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M116. Asian American Social Movements. (4) (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, race, character, political, and social, 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) (Same as Communication Studies M117) Lecture, four hours. Art and science of 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, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

M119. Asian American and Pacific Islander Labor Issues. (4) (Same as Asian American Studies M119) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander 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.

M121. Issues in Latina/Latino Poverty. (4) (Same as Chicana and Chicano Studies M121 and Urban Planning M140) Lecture, four hours. Examination of nature and extent of urban and rural poverty confronting Latina/Latino populations in U.S. Special emphasis on antipoverty policies of government and nonprofit organizations and urban and social policy development strategies. Attention also to literature on underclass. Letter grading.


M123. Chicano/Latino Community Formation: Critical Perspectives and Oral Histories. (4) (Same as Chicana and Chicano Studies M119) Lecture, four hours. Analysis of historical formation and development of Chicano/Latino communities in 20th century, with focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M125. U.S./Mexico Relations. (4) (Same as Chicana and Chicano Studies M125) Lecture, four hours. Examination of complex dynamics in relationship between Mexico and U.S., using political economy approach to study of asymmetrical integration between advanced industrial economies and developing countries. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers Legacy. (4) (Same as Chicana and Chicano Studies M127) Lecture, four hours. Designed for juniors/seniors. Historical and social context of farmworker organizing, including its multicultural origins and its influence on fight for equality and working women’s specific focus on organizing of United Farm Workers and Farm Laborers Organizing Committee, and their relationship to AFL-CIO, other unions, and their influence on Chicano Movement. Letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Same as Chicana and Chicano Studies M128) Lecture, four hours. Designed for juniors/seniors. Introduction to history and organization of labor movement in U.S. and North America. Discussion of race, class, and gender issues raised within movement, and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

M144. Women’s Movement in Latin America. (4) (Same as Chicana and Chicano Studies M144 and Gender Studies M144) 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 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, as well as major debates in field of study. P/NP or letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication Studies M149 and Gender Studies M149) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Gender Studies majors and Labor and Workplace Studies minors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groupings of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, cultures, positions, and other subaltern or subordinate groups are presented and often misrepresented in media. Investigation and assessment 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.
M165. Sociology of Race and Labor. (4) (Same as African American Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of factors influencing the labor force and workplace for African Americans and immigrant communities. Coordinated with instructor. Credit can be received for this course and Sociology M165. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166A and Chicana and Chicano Studies M166A.) Seminar, three hours. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigrant and labor rights, and 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.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166B and Chicana and Chicano Studies M166B.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented immigrants. P/NP or letter grading.


M170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM170.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. P/NP or letter grading.

M172. Free Speech in Workplace. (4) (Same as Communication Studies M172.) Lecture, three hours. Focus on concept of freedom of expression in workplace and how First Amendment, case law, and federal and state statutes affect one’s ability to speak at work. Conflict between discrimination law and ability to speak freely at work as well as meaning and limits of academic freedom. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as African American Studies M173 and Chicana and Chicano 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 guess speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

M175. Agitation and Communication. (4) (Same as Communication Studies M165.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and technique and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (4) (Same as Communication Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary photography have had powerful world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.

M180. Southern California Regional Economy. (4) (Same as Urban Planning CM137.) 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. Letter grading.

188. Special Courses in Labor and Workplace Studies. (4) Seminar, four hours. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

194A. Research Group Seminars: Labor Summer Research Internship Program. (4) (Formerly numbered 160.) Seminar, three hours. Enforced corequisite: course 195A. Designed for undergraduate students who are part of Labor Summer Research Internship Program. Open to graduate and advanced undergraduate students who have demonstrated research skills and an interest in the study of labor and workplace issues. Letter grading.

194B. Research Group Seminars: Labor and Workplace Studies. (4) Seminar, three hours. Designed for undergraduate students who are part of summer research internship program. Discussion and evaluation of research methods used by union researchers and scholars engaged in labor relations and workplace studies. Through combination of lectures, key readings, and active participation in hands-on research in internships with local unions and organizations, development of understanding of critical debates regarding role of research and socioeconomic contexts that impact low-wage workers and their families. Offered in summer only. P/NP or letter grading.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) Seminar, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placements to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) 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 to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Labor and Workplace Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**LATIN AMERICAN STUDIES**

**Interdepartmental Program College of Letters and Science**

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Kevin B. Terraciano, Ph.D., Co-Chair

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Abel Valenzuela, Jr., Ph.D. (Chicana and Chicano Studies, Urban Planning)

**Scope and Objectives**

UCLA has been in the forefront of U.S. universities with significant teaching and research interests in Latin American studies for more than 50 years. More than 100 faculty members from 22 departments and professional schools regularly offer a broad range of courses with an emphasis on Latin America. These course offerings in the humanities, social sciences, fine arts, and professional fields provide students a unique opportunity to focus on Latin America, a region of growing importance.

The Latin American Studies Program offers the Master of Arts degree. Students pursue specialized coursework and interests, culminating in an interdisciplinary research study. Cooperative degree programs with the UCLA Schools of Education and Information Studies, Management, Public Health, and Public Affairs provide the opportunity to combine the M.A. in Latin American Studies with a master’s degree in a professional field.

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 earlier in this catalog.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Latin American Studies Program offers the Master of Arts (M.A.) degree in Latin American Studies.


Latin American Studies

Graduate Courses

205. Latin Americanist Scholarship. (4) Lecture, three hours. Panoramic introduction to methods and issues in various disciplines that study Latin America, with guest lecturers from various fields. (Latin American Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.

M260A-M268B. Seminars: Recent Latin American History. (4) (Same as History M268A-M268B) Seminar, three hours. Course M268A is requisite to M268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

291A-291B. Variable Topics in Latin American Studies. (4-4) Seminar, three hours. Selected topics on Latin America. May be repeated for credit with topic change. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USG. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged.May be repeated, but only 4 units may be applied toward the minimum graduate course requirement. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

598. Research for and Preparation of M.A. Thesis. (4) Tutorial, to be arranged. Only 4 units may be applied toward minimum graduate course requirement. S/U grading.

LAW

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UCLA

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Rachel F. Moram, J.D., Dean

Professors


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 http://www.law.ucla.edu.

Law, Undergraduate

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-Douglass 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 Rome, 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, such as when debtors should be released from debts, what property debtors should keep, and how debtors can put together repayment plans. P/NP or letter grading.


163B. International Human Rights Colloquium. (4) Lecture, two hours. Introduction to underlying principles of international human rights law. Beginning with mid-19th-century transition from Mexican Alta California to U.S. territory and statehood. Topics include state measures affecting California Indians in the 19th century; Americans in California’s 19th-century history; measures used to curtail Chinese immigration laws designed to prevent racial intermixing, Alien Land Laws aimed at Japanese residents of California, relocation of Japanese citizens after Pearl Harbor, California’s response to U.S. immigrants from dust bowl during great depression, post-World War II through 1960s measures aimed at equal access to things like home ownership, employment, and rental housing, and uses of initiative in modern era. P/NP or letter grading.

170. Race and Racism in California Legal History, 1846 to the Present. (4) Seminar, 14 hours. Limited to freshmen/sophomores. Exploration of California legal history, with focus on race riots from U.S. 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 the 19th century; Americans in California’s 19th-century history; measures used to curtail Chinese immigration laws designed to prevent racial intermixing, Alien Land Laws aimed at Japanese residents of California, relocation of Japanese citizens after Pearl Harbor, California’s response to U.S. immigrants from dust bowl during great depression, post-World War II through 1960s measures aimed at equal access to things like home ownership, employment, and rental housing, and uses of initiative in modern era. P/NP or letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court decisions and other sources of constitutional meaning, including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on historical background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitution, Reconstruction, Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and 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, and constitutional protection against discrimination based on race and gender, and basic criminal procedure protections. Emphasis on principal Supreme Court cases considering 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, lawyers, and legal system. Discussion of pop culture treatment of subjects such as adversary system, good and bad lawyers, female lawyers, lawyers from lesbian, gay, bisexual, and transgender community, minority lawyers, work life of lawyers, legal education, ethical issues, jury system, and criminal and civil justice, drawing on film theory and filmmaking techniques to deepen understandings of interactive relationship between law and popular culture. Illumination of ways in which pop culture products both reflect and change social views about law and lawyers. Offered in summer only. P/NP or letter grading.

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 shareholder derivative suits. American legal system and litigation process 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. (2) Lecture, two hours. Introduction to basic principles of criminal law. How to read and interpret judicial decisions and provisions of criminal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. Reading of scholarly papers prepared by school faculty members and other scholars in fields of legal history, economics, and political science. Preparation of critiques and discussion of issues in seminar setting with author of papers. P/NP or letter grading.

187B. Politics and International Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternative theoretical approaches (including realism, institutionalism, and constructivism) to understand relationship between politics and international law. Weekly presentations on topic by 10 leading law and political science scholars from the U.S. and abroad. Reading of scholarly papers, preparation of critiques, and discussion of issues in seminar setting with author of papers. P/NP or letter grading.

191. Variable Topics Research Seminars: Law—California Legal History. (4) Seminar, two hours. Corequisite: course 170. Research project, selected in consultation with faculty member and using original
LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES

Interdisciplinary Minor
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Faculty Committee
Anurima Banerji, Ph.D. (World Arts and Cultures/Dance)
Stuart Biegel, Ph.D. (Education)
Mayael Blackwell, Ph.D. (Chicana and Chicano Studies, Gender Studies)
Sue-Ellen Case, Ph.D. (Germanic Languages, Theater)
Susan D. Cochran, M.S., Ph.D. (Epidemiology, Statistics)
Michelle P. Earai, Ph.D. (Gender Studies)
Alicia Gaspar de Alba, Ph.D. (Chicana and Chicano Studies, English, Gender Studies)
Kerr L. Johnson, Ph.D. (Communication Studies, Psychology)
Arthur L. Little, Jr., Ph.D. (English)
Kathleen A. McCHugh, Ph.D. (English, Film, Television, and Digital Media, Gender Studies)
Uri G. McMillan, Ph.D. (African American Studies, English, Gender Studies)
Sean A. Metzger, Ph.D. (Theater)
Mignon R. Moore, Ph.D. (African American Studies, Sociology)
Mitchell B. Morris, Ph.D. (Musicology)
Laure Murat, Doctorat en Histoire (French and Francophone Studies)
Catherine S. Opie, M.F.A. (Art)
James A. Schultz, Ph.D. (Gender Studies, Germanic Languages)
Robert Bradley Sears, J.D. (Law)
Jennifer A. Sharp, Ph.D. (Comparative Literature, English, Gender Studies)

Scope and Objectives

Although the initial focus in lesbian, gay, bisexual, and transgender studies is usually on minoritization, it is impossible to study them in any meaningful way without raising questions about gender, race, ethnicity, economics/classes, globalization, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, and transgender 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. It 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, lesbian, gay, bisexual, and transgender studies is the site of some of the most exciting work being done today on the relationship between sexuality and culture.

UCLA’s minor in Lesbian, Gay, Bisexual, and Transgender Studies provides the opportunity to study sexuality from a variety of cultural and disciplinary perspectives meant to engage students in some of the most cutting-edge research in lesbian, gay, bisexual, transgender, and queer studies. In addition, seniors in the minor are expected to do a capstone internship in an international, national, or community organization, thereby acquiring invaluable first-hand 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.

Undergraduate Study

Lesbian, Gay, Bisexual, and Transgender Studies Minor

To enter the Lesbian, Gay, Bisexual, and Transgender Studies minor, students must have an overall grade-point average of 2.0 or better.

Required Upper Division Courses (28 units): Lesbian, Gay, Bisexual, and Transgender Studies M114, 180SL, and five additional courses to be selected from at least three of the following four areas:

Health, Genetics, and Science: Lesbian, Gay, Bisexual, and Transgender Studies M147A, 184, Psychology 129E.

Students may petition to apply a non-listed course on the minor if they can show that lesbian, gay, bisexual, or transgender issues represent a significant part of the course content. Students are strongly urged to keep in close contact with the program coordinator 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. Successful completion of the minor is indicated on the transcript and diploma.

Lesbian, Gay, Bisexual, and Transgender Studies

Upper Division Courses

M101A. Premodern Queer Literatures and Cultures. (5) (Formerly numbered M101A prior to Fall Quarter 2011.) Same as English M101A and Gender Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature from before circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101B. Queer Literatures and Cultures, 1850 to 1970. (5) (Formerly numbered M101B.) Same as English M101B and Gender Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101C. Queer Literatures and Cultures after 1970. (Formerly numbered M101C.) Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Examined the development of queer literatures and cultures produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Hol-leran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101D. Studies in Queer Literatures and Cultures. (Formerly numbered M101D.) Same as English M101D and Gender Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. 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) (Formerly numbered M107B.) Same as English M107B and Gender Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. 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. Students may petition to apply a non-listed course on the minor if they can show that lesbian, gay, bisexual, or transgender issues represent a significant part of the course content. Students are strongly urged to keep in close contact with the program coordinator 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. Successful completion of the minor is indicated on the transcript and diploma.
such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (5) (Same as Gender Studies M114.) Lecture, four hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of homosexuals, gay men, bisexuals, and transgendered people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (4) (Same as Gender Studies M115.) Lecture/discussion, three hours. Requisite: course M114 or Gender Studies 10. Studies in arts, humanities, social sciences, literature, and research on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political change, and life experiences, and queer or transgender theories; multietnic and cross-cultural emphases. May be repeated for credit. Letter grading.

M116. Sexuality and the City: Queer Los Angeles. (4) (Same as Gender Studies M116.) Lecture, four hours; fieldwork, five hours. Requisite: course M114. Investigation of history, culture, and political economy of lesbian, gay, bisexual, and transgender Los Angeles. Letter grading.

M118. Queering American History. (4) (Same as Gender Studies M118.) Lecture, four hours. Enforced requisite: one prior History of sexual and gender minorities in U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, prison-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

M125. Contested Identities: Exploring Intersection of Ability and Sexuality. (4) (Same as Disability Studies M125.) Lecture, three hours. Exploration of identity as means of understanding cultural formations, dominant/nondominant power dynamics, and systems of visual representation. Intersectional approach to explore how ability and sexuality intersect, overlap, and change notions of identity. Use of scholarly texts from disability studies, lesbian, gay, bisexual, and transgender studies, popular culture, performance, and film to investigate factors that shape ability and sexuality as basis for identity. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as English M126 and Gender Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or H3. Recommended: one course from English 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and contemporary issues related to study of gender, sexuality, and kinship, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M133. Chicana Lesbian Literature. (4) (Same as Chicana and Chicano Studies CM133 and Gender Studies CM133.) Lecture, three 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 familia in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/Chicano studies. Letter grading.

M134. Cultural Construction of Gender and Sexuality: Sexuality/Class, Race, and Gender. (4) (Same as Anthropology M134 and Honors Collegium M129.) Seminar, three hours. Comparative analysis of role of environment, history, and culture in structuring of patterns of same-sex erotic behavior in Asia, Africa, Middle East, Pacific, Caribbean, and aboriginal America. P/NP or letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Same as 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.

M141. African American Women's History. (4) (Same as African American Studies M141.) Lecture, four hours. Historical examination of black women's experiences in U.S. from antebellum era to present. By subgroup, an examination of the historical transitions in African American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, and the 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 to such discoveries? Examination of black women's individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women's participation in and challenge to social movements, including suffrage, women's liberation, civil rights, and black power. Investigation of black women's intellectual history, including their cultural productions. Letter grading.

M142. Race, Gender, and Punishment. (4) (Same as African American Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contemporary developments in prison-industrial complex in U.S., with attention to impact of prison industrial complex on immigrants, including undocumented residents, homeless populations, women, African Americans, and transgender nonconforming and lesbian, gay, bisexual, and transgender communities. Why does U.S. have largest prison population in world? What historical conditions and ideologies gave rise to this mass incarceration in U.S. prison population? What policies have fueled mass imprisonment? Who is imprisoned? How have politicians used imprisonment as response to economic transformations and persistent poverty? What are the current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M147A. Psychology of Lesbian Experience. (4) (Same as Gender Studies M147A and Psychology M147A.) Lecture, two hours; discussion, one hour. Requisite: course M114 or Gender Studies 10 or Psychology 10. Designed for juniors/seniors. Review of research and theory in psychology and gender studies to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, and development of lesbians and gay men. Analysis of identity development within a multicultural society, changes in psychological theories about lesbians in sociohistorical context. P/NP or letter grading.

M187. Contested Sexualities. (4) (Same as Gender Studies M187.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

180SL. Lesbian, Gay, Bisexual, and Transgender Institutions and Organizations. (4) Lecture, three hours; fieldwork, five hours. Preparation: one prior course in gay, 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 already taken and test them in the settings of UCLA. P/NP or letter grading.

181. Variable Topics in Queer Diversities. (4) Lecture, two hours; discussion, two hours. Study of topics about queer diversities from lesbian, gay, bisexual, and transgender studies perspectives. P/NP or letter grading.

182. Variable Topics in Education, Law, and Public Policy. (4) Lecture, two hours; discussion, two hours. Study of law, education, and public policy topics from lesbian, gay, bisexual, and transgender studies perspectives. P/NP or letter grading.

183. Variable Topics in Queer Subjectivities/Theories/Histories. (4) Lecture, two hours; discussion, two hours. Study of topics about queer subjectivities/theories/histories/history from lesbian, gay, bisexual, and transgender studies perspectives. P/NP or letter grading.

184. Variable Topics in Science, Health, and Genetics. (4) Lecture, four hours; discussion, three hours. Study of selected topics in lesbian, gay, bisexual, and transgender studies. Con-sult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D and Gender Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3 or H3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Gender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3 or H3. 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: Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Two hours. Preparation: completion of four courses toward minor. Requisite: course M114. Corequisite: course 195. Designed for seniors who are doing internship in lesbian, gay, bisexual, or transgender community 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 Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Preparation: completion of four courses toward minor. Requisite: course M114. Corequisite: course 194. Limited to seniors. Internship in supervised setting in lesbian, gay, bisexual, or transgender community organization. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Requisite: course M114. Limited to juniors/seniors. Directed 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.
Students who wish to study life sciences have a choice of eight majors, all of which lead to a Bachelor of Science 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 departmental listings in this section of the catalog. For additional information on the life sciences core curriculum, see https://www.lscore.ucla.edu.

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 1A, 1B, 14B, 14CL, 14D, or 20A, 20B, 20L, 30A, 30AL, 30B; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Each core course curriculum 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 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, and one year of organic chemistry within 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 at http://www.admissions.ucla.edu/prospect/adms_tr.htm for up-to-date information regarding transfer selection for admission.

**Undergraduate Research Consortium in Functional Genomics**

The Undergraduate Research Consortium in Functional Genomics (URCFG) offers a sequence of laboratory-intensive courses designed for undergraduate students committed to pursuing research. The innovative partnership between UCLA and the Howard Hughes Medical Institute (HHMI) was formed through a major award to Professor Utpal Banerjee. The HHMI Professors Program seeks to engage leading scientists in transmitting the excitement and values of scientific research to undergraduate education. The goal of the URCGF is to emphasize the importance for academia and industry of research in the fields of medicine and biotechnology.

Sponsored by the Life Sciences Core, the URCGF provides undergraduate students from any UCLA major with the opportunity to learn biological research techniques early in their educational careers and within a structured institutional environment. Students devote between one and four terms to the study of biological research, genomics, bioinformatics, and functional genomics. The training emphasizes research concepts in basic science such as the model organism and in advanced research techniques such as electron microscopy. Students participate in one structured lower division course—Biomedical Research 10H—which is limited to 30 students per term and is offered every term. After satisfactorily completing course 10H and with instructor consent, students may participate in up to three terms of upper division research in genes, genetics, and genomics. The upper division courses—Life Sciences 100HA, 100HB, 100HC—do not involve preexisting laboratory experiments. Syllabi for the courses are instead based on individual research projects whose outcomes students discover through the course of their studies. It is anticipated that only about one third of the students who complete course 10H will subsequently enroll in course 100HA, and students are advised that they can benefit significantly from course 10H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the courses. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCGF coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 128A Hershey Hall, (310) 825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H. See https://www.lscore.ucla.edu/research/index.html.

**Life Sciences Lower Division Courses**

1. **Evolution, Ecology, and Biodiversity.** (5) Lecture, through the laboratory; two hours; one field trip. Introduction to principles and mechanisms of evolution by natural selection; population, behavioral, and community ecology; and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. P/NP or letter grading.

2. **Cells, Tissues, and Organs.** (4) Lecture, three hours; discussion, 75 minutes. Enforced requisite: Chemistry 14A or 20A. Introduction to basic principles of cell structure, organization of cells into tissues and organs, and principles of organ systems. Letter grading.

3. **Introduction to Molecular Biology.** (4) Lecture, three hours; discussion, 75 minutes. Enforced requisite: course 2. Introductory wet-laboratory course designed to prepare students for upper division laboratory courses for all life sciences departments. Use of wet-laboratory/bioinformatics methods and tools applicable in variety of biological fields, molecular biology, microbiology, and genetics. Students conduct inquiry-based laboratory experiments and learn basic wet-laboratory skills to refine their skills to write their own laboratory reports and to work in groups as team. Letter grading.

3H. **Introduction to Molecular Biology (Honors).** (5) Lecture, two and one-half hours; discussion, 90 minutes; movie section, two and one-half hours. Enforced requisites: course 2, and Chemistry 14C or 30A. Honors course parallel to course 3, but at a more advanced level. Letter grading.


15. Life: Concepts and Issues. (5) Lecture, three hours; discussion, two hours. Introduction to important concepts and issues in the field for non-life sciences majors. Topics include chemistry of life, genetics, physiology, evolution, and ecology—all explored in lecture and debates, with a writing component. N or P grading.

15L. Life: Concepts and Issues Laboratory. (1) Laboratory, two hours. Enforced corequisite: course 15. Broad introduction to biology, with focus on scientific literacy and thinking. Topics include scientific thinking, decision making, data analysis, data, evolution and genetics, physiology (chemistry, nutrition, reproduction, endocrinology, and neurobiology), and human behavioral biology. Letter grading.

23L. Introduction to Laboratory and Scientific Methodology. (2) Laboratory, three hours; discussion, one hour. Enforced requisite: course 2. Must be taken concurrently with either course 3 or 4. Introduction to laboratory techniques for undergraduates. Opportunity to conduct wet-laboratory cutting-edge bioinformatics laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, molecular biology, genotyping, and bioinformatics. Letter grading.

30A. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computer programs. Mathematical modeling as tool for understanding dynamics of biological systems. Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equation models of dynamical processes in ecology, physiology, and other subjects in which quantities change with time. Use of free computer program Sage for problem solving, plotting, and dynamical simulation in laboratory. Letter grading.

30B. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours. Enforced requisite: course 30A. Introduction to concepts 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.

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.

98X. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in life sciences. Preparation: 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.

Upper Division Courses

100HA-100HB-100HC. Advanced Research in Genes, Genetics, and Genomics. (4-4-4) Lecture, two hours; laboratory, 10 hours. Requisite: course 10H. Course 100HA is requisite to 100HB, which is requisite to 100HC. Designed for undergraduates who are committed to pursuing research. Advanced research training in genetics, cell and developmental biology, bioinformatics, functional genomics. Techniques include genetics, molecular biology, other light microscopy, immunohistochemistry. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

130. The Class Observation and Participation. (1) Seminar, one hour. Preparation: completion of mathematics and/or science courses at level required of science majors. Observation, participation, and assisting in science classes at elementary, middle, and secondary schools. May be repeated for credit. P/NP grading.

192A. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours. Requisite: course 2 or 3. Training and supervised practicum in laboratory setting for advanced undergraduate students in courses related to life sciences. Students work on oral presentation skills and assist in preparation and presentation of materials and development of programs under guidance of faculty members. May be repeated once for credit. Letter grading.

192B. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours. Requisite: course 2 or 3. Limited to sophomores/juniors/seniors. Training and supervised practicum for advanced undergraduate students in courses related to life sciences. Students work on oral presentation skills and assist in preparation and presentation of materials and development of programs under guidance of faculty members. Letter grading.

192C. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours. Requisite: course 4. Limited to sophomores/juniors/seniors. Training and supervised practicum in development of problem-solving skills and intuition in genetics in collaborative learning environment for advanced undergraduate students in courses related to life sciences. Students work on oral presentation skills and assist in preparation and presentation of materials and development of programs under guidance of faculty members. May be repeated once for credit. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member. Culminating paper/project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Linguistics / 449

Linguistics

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Scope and Objectives

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 (with its roots in phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the 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, Master of Arts, and Ph.D. degrees.

Undergraduate Study

The majors described below are of two types: (1) a major that concentrates entirely on general linguistics and (2) several majors that combine the basic courses of the general program with a language concentration or other related fields. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have nonuniversity teaching careers as goals.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.
Linguistics B.A.
The Linguistics major is designed for students with an exceptional interest in and aptitude for the study of languages and linguistics. It enables undergraduates to gain substantial familiarity with several languages and types of linguistic structure and to become conversant with the historical study of language and formal theories of linguistics.

Preparation for the Major
Required: Linguistics 20; two of the following: Philosophy 31, Psychology 10 or 100A, one cultural anthropology course; completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Students who complete an advanced language course are considered to have completed the equivalent of whatever courses are requisite to that one (e.g., if students complete French 100, they have automatically satisfied the requirement of the sixth term of work in one language). Students are required to complete at least the equivalent of the third term in a language other than those in the Romance, Slavic, or Germanic families. This requirement may be satisfied either as part of or in addition to the language requirement described in the preceding paragraph.

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 and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families).

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B, two courses from 114, 120C, 170; Anthropology M140, 141 (or Sociology M124A), C144, and two upper division electives from 141, 144, the 130 series (one course only), the 170 series (one course only), Sociology M124A, M124B. Linguistics 165A and 165B (or 200A and 200B with grades of A in 120A and 120B respectively and consent of instructor) are recommended for students planning to pursue graduate work in linguistics.

Linguistics and Anthropology B.A.
Preparation for the Major
Required: Linguistics 20, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language (at least three terms must be in a language other than those in the Romance, Slavic, and Germanic families). Anthropology 33 is strongly recommended, when offered.

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 and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families). One cultural and communication course is strongly recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper division courses as follows: Linguistics 103, 110, 120A, 120B or 127; two courses from 114, 120C, 170; Anthropology M140, 141 (or Sociology M124A), C144, and two upper division electives from 141, 144, the 130 series (one course only), the 170 series (one course only), Sociology M124A, M124B. Linguistics 165A and 165B (or 200A and 200B with grades of A in 120A and 120B respectively and consent of instructor) are recommended for students planning to pursue graduate work in linguistics.

Linguistics and Computer Science B.A.
Preparation for the Major
Required: Linguistics 20, Computer Science 31, 32, 33, 35L, Mathematics 31A, 31B, 61 or 180, Philosophy 31, completion of the sixth term in one foreign language or the third term in each of two foreign languages.

Transfer Students
Transfer applicants to the Linguistics and Computer Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two calculus courses, one symbolic logic course, four computer programming courses, and two years of one foreign language or one year in each of two foreign languages. One discrete structures course is recommended.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper division courses as follows: Linguistics 103, 120A, 120B, 165A or 165B, 180, 185A, Computer Science 131, 132 or 161, 180, 181.

Linguistics and English B.A.
Preparation for the Major
Required: Linguistics 20, English 4W or 4HW, 10A, 10B, 10C, Philosophy 31, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.
Transfer Students
Transfer applicants to the Linguistics and English major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one foreign language and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper division elective in linguistics, English 113A, 113B (or Applied Linguistics C116), 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and Philosophy B.A.
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the third term of a foreign language and the third term of a second foreign language.

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: two years of French, one introduction to linguistics course, one French literature course, and one upper division elective philosophy and the third term of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Italian B.A.
Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Philosophy B.A.
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the third term of a foreign language and the third term of a second foreign language.

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: two years of French, one introduction to linguistics course, one French literature course, and one upper division elective philosophy and the third term of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Italian B.A.
Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Philosophy B.A.
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the third term of a foreign language and the third term of a second foreign language.

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: two years of French, one introduction to linguistics course, one French literature course, and one upper division elective philosophy and the third term of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Italian B.A.
Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Philosophy B.A.
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the third term of a foreign language and the third term of a second foreign language.

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: two years of French, one introduction to linguistics course, one French literature course, and one upper division elective philosophy and the third term of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper division electives in linguistics, Italian 102A, 180, and three upper division electives in Italian.

Linguistics and Italian B.A.
Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.
course, 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 at http://www.admissions.ucla.edu/prospect/adm _tchtm for up-to-date information regarding transfer selection for admission.

The Major
Required Lower Division Course (5 units):
To enter the minor, students must have an other field.

The Department of Linguistics offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Linguistics.

American Sign Language
Lower Division Courses

Graduate Study
Official, specific degree requirements are de- tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

Linguistics Minor
The Linguistics minor is designed for 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.

Indigenous Languages of the Americas

Upper Division Courses
119A-119B-119C. Advanced Quechua. (4-4-4) Lecture, five hours. Course 119A is requisite to 119B, which is requisite to 119C. Readings in Quechua. Dialectal and stylistic variation. Discussions mainly in Quechua. P/NP or letter grading.

191. Variable Topics Research Seminars: Indige- nous Languages. (2 or 4) Seminar; three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course
596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisites: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

Linguistics
Lower Division Courses
1. Introduction to Study of Language. (5) Lecture, three hours; discussion, one hour. Summary, for general undergraduates, of what is known about human language; unique nature of human language, its struct- ure, its universality, and its diversity; language in its social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NP or letter grading.
3. American Sign Language: Structure and Culture. (5) Lecture, four hours; discussion, one hour. Knowledge of American Sign Language (ASL) is not required. Introduction to principles of linguistics through a study of structure of American Sign Language and culture of deaf Americans. Phonology, morphology, syntax of ASL, historical change, signed language universals, and the identity, and ASL literature. P/N/P or letter grading.

4. Language and Evolution. (5) Lecture, four hours; discussion, one hour. 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/N/P or letter grading.

5. World Languages. (8) Lecture, four hours; discussion, one hour. Introduction to linguistic diversity of world and to such core areas of linguistics as study of sound production and patterning (phonetics and phonology), word formation (morphology), and sentence formation (syntax). Structural characteristics of world languages and methods of classifying languages into families and types. Detailed discussion of representative languages with audiovisual illustrations to acquire concepts and 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/N/P 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 and their first perception and production of speech sounds, then investigation of how children learn words and rules for producing and understanding language. Language acquisition in special populations such as children acquiring sign languages, bilingual children, and people acquiring language beyond critical period. Focus mainly on English, but of other languages. Offered in summer only. P/N/P or letter grading.

7. Language in Context. (4) Lecture, four hours; discussion, one hour (when scheduled). How is meaning of language influenced by world around us? Introduction to pragmatics, speech acts, ordinary language philosophy, and linguistic relativity. Good foundation for students of linguistic theory, philosophy, sociology, anthropology, and communication studies. P/N/P or letter grading.

M10. Structure of English Words. (5) Same as English M40.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/N/P or letter grading.

20. Introduction to Linguistics. (5) Lecture, four hours; discussion, one hour. Introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. P/N/P or letter grading.

88A-88B. Lower Division Seminars. (4-4) Seminar, three hours. Limited to freshmen/sophomores. Variable topics; consult Schedule of Classes, College of Letters and Science, or department for topics to be offered in specific term. May be repeated for credit. P/N/P or letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics offered by departmental faculty members. May be repeated for credit with topic change. P/N/P or letter grading.

Upper Division Courses

102. Introduction to Applied Phonetics. (5) Lecture, four hours; discussion, one hour. 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/N/P or letter grading.

103. Introduction to General Phonetics. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20 with grade of B– or better. Phonetics of variety of languages and phonetic phenomena that occur in languages of world. Extensive practice in perception and production of such phenomena. P/N/P or letter grading.

104. Experimental Phonetics. (5) Lecture, four hours; discussion, one hour. Requisite: course 102 or 103. Survey of principal techniques of experimental phonetics. Use of laboratory equipment for recording and measuring phonetic phenomena. P/N/P or letter grading.

105. Morphology. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological theory seeks to answer questions such as how should words and their component parts (roots, prefixes, suffixes, with emphasis on crosslinguisticity); how do speakers know, produce, and process complex words (words with affixes, compounds)? how do speakers know how to produce correct word forms even when they have not heard them before; and how do speakers know that particular words are well-formed or ill-formed? is there principled distinction in traditional division between inflection and derivation? how can we best account for variation in forms that are same (e.g., root in keep/keep even though vowels are different)? can we formulate crosslinguistic generalizations about word structure? P/N/P or letter grading.

110. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 102 or 103, 119A or 120A. Methods and theories in study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/N/P or letter grading.

110G. Introduction to Historical Linguistics for Graduate Students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students to help remedy entrance deficiencies in historialic linguistics. Basic historical linguistics: methods and theories in study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. S/U grading.

114. American Indigenous Linguistics. (5) Lecture, four hours; discussion, one hour. Strongly recommended preparation: course 20. Survey of genetic, 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/N/P or letter grading.

M115. Survey of African Languages. (4) Same as African Languages M137.) Lecture, four hours. Requisite: course 20. Introduction to languages of Africa, their distribution and classification, and their phonological and grammatical structures; elementary practice in several languages. P/N/P or letter grading.


120. Phonology I. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 120B. Sound structures and sound patterns of 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/N/P or letter grading.

120A. Phonology I. (5) Lecture, four hours; discussion, one hour. Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 120B. Basic tools of phonology. Analysis of sound patterns in natural languages. Focus on insight into nature of such structures rather than phonological formalization. P/N/P or letter grading.

120C. Semantics I. (Formerly numbered 125.) Lecture, four hours; discussion, one hour. Requisite: course 120B. Survey of most important theoretical and descriptive claims about nature of meaning. P/N/P or letter grading.

127. Syntactic Typology and Universals. (5) Lecture, four hours; discussion, one hour. Requisite: course 20. Study of essential similarities and differences among languages in grammatical devices they use to signal the following kinds of concepts: relations between nouns and verbs (case and word order), negation, comparison, existence/location/possession, causation, interrogation, reflexivization, relativization, attribution (adjectives), time (tense and aspect), and basic meaning (subcategorization). Survey of a wide range of languages presented and analyzed. P/N/P or letter grading.

C128A-C128B. Romance Syntax: French. (4-4) Lecture, four hours. Prequisite: a basic knowledge of French (or one Romance language). Enforced requisite: course 120B. Course C128A is enforced requisite to C128B. Aspects of structure of French language, emphasis on syntactic structures not found in English. Concurrently scheduled with course C228A-C228B. P/N/P or letter grading.

130. Language Development. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 119A or 120A, 119B or 120B. Survey of research and theoretical perspectives in language development in children. Discussion and examination of child language data from English and other languages. Emphasis on universals of language development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and word meaning. P/N/P or letter grading.

132. Language Processing. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 20, 119A or 120A, 119B or 120B. Central issues in language comprehension and production, with emphasis on how theories of linguistics inform processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inferencing, speech error models of sentence production, and computational theories of syntactic structure during production. P/N/P or letter grading.

C135. Neurolinguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 or 20, and 130. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language
disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour. Requisites: courses 119A or 120A, 119B or 120B, 130. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition, with focus on nature of L2 grammar and grammatical processes underlying L2 bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C234. P/NP or letter grading.

M141. Current Methods of Language Teaching. (5) (Same as English Composition M141.) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. Survey of theory and practice in teaching second languages. Includes (1) past and present methods used to teach second languages, (2) current theory and practice underlying skills-based instruction and integrated approaches, and (3) factors that affect second language acquisition and learning. Development of knowledge base in and rational base for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

M144. Fundamentals of Translation and Interpreting. (5) (Same as Applied Linguistics M144.) Lecture, four hours; discussion, one hour. Recommended preparation: knowledge of English and at least one other language. Enforced requisite: course 20. Examination of salient lexical, structural, cultural, and social aspects of translating and interpreting between two or more languages. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

M146. Language in Culture. (5) (Same as Anthropology M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 20 or Anthropology 33. 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 relationship of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as other fields. P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 2. 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.

160. Field Methods. (5) Lecture, four hours; discussion, one hour. Requisites: courses 102 or 103, 119A or 120A, 119B or 120B. Analysis of language unknown to members of class from data elicited from native speaker of that language. P/NP or letter grading.

161. Language Documentation. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20 (enforced), and 105 or 119A or 120A. Issues in documenting languages, including collection of primary data using linguistic field methods, organizing data into documents (annotated texts, dictionaries, multimedial presentations, technical articles), audiences for language documents (speakers of target languages, linguists, scholars outside linguistics, general public), presentation of language documents (public presentation, online publication, electronic and physical archives), documenting endangered languages, and organizations and initiatives for documenting endangered languages. Presentations focus on case studies. Student projects in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

165A. Phonology II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120A. To be taken in term following completion of course 120A or as soon as possible thereafter. Recommended for students who plan to pursue graduate studies in phonology. Properties of grammar, form of grammar, word, formation, formal and substantive universals in syntax, relation between syntax and semantics, P/NP or letter grading.

165C. Semantics II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120B. To be taken in term following completion of course 120B or as soon as possible thereafter. Recommended for students who plan to pursue graduate work in linguistics. Further study in relevant logics, relations between sentences, lexical semantics, tense and aspect, adverbs, modality and intensification. P/NP or letter grading.

170. Language and Society: Introduction to Sociolinguistics. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. Study of patterns of variation and cohesion in usage of dialects and social styles in language; problems of multilingual societies. P/NP or letter grading.

175. Linguistic Change in English. (5) Lecture, four hours. Requisite: course 120B. Principles of linguistic change as exemplified through detailed study of history of English pronunciation, lexicon, and syntax. P/NP or letter grading.

M176A. Japanese Phonology and Morphology. (4) (Same as Japanese CM122.) Lecture, three hours; discussion, one hour. Requisite: at least two or more years of Japanese. Survey of Japanese phonetics, phonology, and morphology. Letter grading.


M177. Structure of Korean. (4) (Same as Korean CM123.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of a variety of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Letter grading.


185A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 120B, 180, Program in Computing 10B (or Computer Science M10B). Recommended: Computer Science 165B or 200B or 200R. Survey of recent work on natural language processing, including basic syntactic parsing strategies, with brief glimpses of semantic representation, reasoning, and response generation. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Requisite: course 185A. Extensions of basic language processing techniques to natural language processing. Recent models of linguistic theory and analysis: autosegmental theory, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

191A. Variable Topics Research Seminar: 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 undergraduates 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 consent may be obtained from Linguistics Department. P/NP or letter grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, four hours. Requisite: course 1 or 20. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average. Requisite or corequisite: course 165A (or 200A) or 165B (or 200B). Recommended: completion of both courses 165A and 165B (or 200A and 200B) before or during term in which course 198A is taken. Limited to juniors/seniors. Development of honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

198B. Honors Research in Linguistics II. (2)Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project begun in course 198A, to be presented in direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in 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. Cumulating 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) Preparation: graduate linguistics student or grade of A in course 120A or equivalent course in phonology. Courses 200A and 201 form two-course survey of current research in phonological theory, focusing on interrelations of morphology and syntax, syllable structure, stress, and tone.

200B. Syntactic Theory I. (4) Preparation: graduate linguistics student or grade of A in course 120B or equivalent course in syntax. In-depth introduction to syntax. Topics include theories of syntax, phrase structure, syntactic forms, coordination, and semantic relations. Topics include levels of representation, X-bar...
theory, case theory, thematic roles, the lexicon, grammatical function-changing rules, head-complement relations.

200C. Semantic Theory I. (4) Lecture, four hours. Recommended: course 180 or 208. Overview of current results and research methods in linguistic semantics. Topics include generalized quantifiers and semantic universals, prosodic composition and alignment, prosodic architectures, variable binding and pronoun-mobilization, formal semantic interpretation, syntax and LF, tense, ellipsis, and focus. Letter grading.

201A. Phonological Theory II. (4) Formerly numbered 201.) Lecture, four hours. Repeat of course 200. Continuation of course 200A. Second course in two-course survey of current research in phonological theory. Topics include autosegmentalism (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology. S/U or letter grading.

201B. Syntactic Theory II. (4) Formerly numbered 206.) Lecture, four hours. Repeat of course 200B. In-depth introduction to selected topics in syntactic theory of morphological and/or production, with emphasis on use of laboratory methods such as aerodynamic transducers, electroglottography, static and dynamic transducers, speech perception, and cross-linguistic speech perception, and control theory; null subject parameter. S/U or letter grading.


203. Phonetic Theory. (4) Required: course 120A. Preliminaries to speech analysis. Functional anatomy of vocal organs; fundamental principles of acoustics and of acoustic theory of speech production; issues in perception of speech; nature and design of feature systems for phonetic and phonological analysis.

204A. Experimental Phonetics. (4) Lecture, three hours. Required: 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; physiological data.

204B. Speech Production. (4) Lecture, three hours; laboratory, one hour. Required: course 104 or 204A. Survey of topics in speech production research, especially as related to linguistic phonetics. Topics include physiology of vocal tract and models of speech production and articulatory/acoustic relations. Emphasis on use of laboratory methods such as aerodynamic transducers, electroglottography, static and dynamic transducers, and magnetic articulography, and imaging techniques. S/U or letter grading.

204C. Speech Perception. (2 to 4) Lecture, four hours. Recommended: 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, gating, priming, eye tracking, phoneme monitoring, and word spotting. S/U or letter grading.


209A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Repeat of 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 psychological plausibility. S/U or letter grading.

209B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Required: course 209A. Survey of experimental work that bears on claims about speakers' knowledge of phonology, including theories of lexicon, relation between perception and phonology, and universal markedness relations.

209C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Required: course 185A or 209A. Study of algorithms to compute and reason with meanings of sentences and their parts. Topics include presupposition resolution, and mapping between syntax and semantics. S/U or letter grading.

210A. Field Methods I. (4) Lecture, four hours. Required: course 203 or 203B in course 103 or in examination on practical phonetics. Required: 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. Required: course 210A in preceding year. May be repeated for credit with topic change. Different languages are investigated in different years. May be repeated for credit with topic change. S/U or letter grading.

211. Intonation. (4) Lecture, two hours; laboratory, two hours. Required: course 120A or 120B. Study 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 intonational contours. S/U or letter grading.

212. Learnability Theory. (4) Lecture, four hours. Required: course 180 or 208. Survey of some of most significant results on capabilities of learners, given premises about their memory, time, and computational power, and precise assumptions about information provided by environment. S/U or letter grading.

213A. Grammatical Development. (4) Required: courses 200A, 200B. Recommended: course 190 or 233. Survey of theoretical perspectives and contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.

213B. Brain Bases for Language. (4) Required: courses 200A, 200B. Recommended: course C135 or C235. Survey of theoretical perspectives and contemporary empirical research in neuropsychology and cognitive neuroscience with emphasis on neuroanatomic and cognitive bases for language, language development, and language breakdown.

213C. Linguistic Processing. (4) Lecture, four hours. Recommended: course 200A. Required: course 200A or 200B. Survey of theoretical perspectives and contemporary empirical research in human processing of language (comprehension, production), and processing of language (sentence production, word order, and relationship between grammatical and fluency, S/U or letter grading.

214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Required: 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. Required: course 200B. Survey of current approaches to model-theoretic universal; genetic classification of world languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, deixis, systems, and types of sentence complements. S/U or letter grading.

216. Syntactic Theory III. (4) Lecture, four hours. Required: course 201B. Survey of current approaches to model-theoretic universal; genetic classification of world languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, deixis, systems, and types of sentence complements. S/U or letter grading.

217. Experimental Phonology. (4) Lecture, four hours. Required: course 200B. Survey of experimental work that bears on claims about speakers' knowledge of phonology, including theories of lexicon, relation between perception and phonology, and universal markedness relations.

218. Mathematical Structures in Language II. (4) Lecture, four hours. Required: course 180 or 208. 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 III. (4) Lecture, four hours. Required: course 200B. Survey of current approaches to model-theoretic universal; genetic classification of world languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, deixis, systems, and types of sentence complements. S/U or letter grading.

220. Linguistic Areas. (4) Required: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Aborigini North America, Aboriginal South America, Far East, etc.). May be repeated for credit with topic change.

221. Linguistic Structures. (4) Lecture, four hours. Recommended: 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, genealogical relationships to others of its family. May be repeated for credit with topic change. S/U or letter grading.

C228A-C228B. Romance Syntax: French. (4-4) Lecture, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requi- site: course 120B. Course C228A is enforced requi- site to C228B. Aspects of structure of French language, with emphasis on properties of construction morphology and negative coreferentiality. Required: course C128A-C128B. S/U or letter grading.

233. Language Development, (5) Lecture, four hours. Requisites: courses 20, 120A, 120B. Survey of research and theoretical perspectives in language development in infancy and early childhood. Topics include basic phonology and syntax of child language data from English and other languages. Emphasis on universals of language development. Topics include infant speech perception and production, phonology, morphology, syntax, and word meaning. S/U or letter grading.

C235. Neurolinguistics, (5) Lecture, four hours; discussion, one hour. Requisites: courses 1 or 2, and 130. Examination of the relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodology 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 neurolinguological literature and produce research papers of greater depth. S/U or letter grading.

236. Computational Phonology, (4) Lecture, four hours. Introduction to computational models of phonology and phonological acquisition. Topics include finite state machines, probabilistic automata, overconstrained models, dynamic programming methods. Letter grading.

M238. Analyzing Historical Texts, (4) (Same as History M266C.) 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.

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.

C244. Bilingualism and Second Language Acquisition, (5) Lecture, four hours; discussion, one hour. Requisites: courses 119A or 120A, 119B or 120B, 130. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition, with a focus on understanding nature of L2 grammar and grammatical processes underlying L2/bilingual acquisition. Discussion of neurolinguistic and social aspects of language acquisition as they are currently scheduled with course C140. Graduate students expected to read more advanced literature, do in-class presentation, and submit graduate-level term paper. S/U or letter grading.

M246C. Topics in Linguistic Anthropology, (4) (Same as Anthropology M241.) Problems in relations of language, culture, and society. May be repeated for credit.

251A. Topics in Phonetics and Phonology, (4) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meets with course 251B. May be repeated for credit. Letter grading.

251B. Topics in Phonetics and Phonology, (2) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. May not be applied toward M.A. degree requirements. Meets with course 251A. May be repeated for maximum of 8 units. S/U grading.

252A. Topics in Syntax and Semantics, (4) Seminar, four hours. Requisite: course 200B. Course 200B, 206, 207, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. Meets with course 252B. May be repeated for credit. Letter grading.

252B. Topics in Syntax and Semantics, (2) Seminar, four hours. Requisite: course 200B. Course 200B, 206, 207, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. May not be applied toward M.A. degree requirements. Meets with course 252A. May be repeated for credit. S/U grading.

253A. Topics in Language Variation, (4) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. Meets with course 253B. May be repeated for credit. Letter grading.

253B. Topics in Language Variation, (2) Seminar, four hours. Requisite: course 110. Course 202 may be required. Specialized topics in language variation. May not be applied toward M.A. degree requirements. Meets with course 253A. May be repeated for credit. S/U grading.

254A. Topics in Linguistics, (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 210A, 210B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213C, 214, 215, 216, or 218 may be required. Individual proseminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254B. May be repeated for credit. Letter grading.

254B. Topics in Linguistics, (2) Seminar, four hours. Requisites: courses 200A, 200B. Course 210A, 210B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213C, 214, 215, 216, or 218 may be required. Individual proseminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May not be applied toward M.A. degree requirements. Meets with course 254A. May be repeated for credit. S/U grading.

260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

261A-261B-261C. Seminars: Phonology. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

262A-262B-262C. Seminars: Syntax and Semantics, (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

264A-264B-264C. Seminars: Psycholinguistics/Neurolinguistics/Neurolinguistics. (2 or 4 each) Seminar, three hours. Special topics may include child language, neurolinguistics, psycholinguistics, sociolinguistics, etc. Each course may be taken independently for credit. May not be applied toward M.A. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminars, (1 or 4 each) Seminar, two hours; fieldwork, four hours. Preparation of research on American Indian linguistics. Each course may be taken independently for credit. May not be applied toward M.A. or Ph.D. degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.


276. Linguistics Colloquium, (4) Preparation: directed individual study or research. May be applied toward M.A. or Ph.D. degree requirements. May not be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

276A-276B-276C. Directed Studies, (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

596A. Directed Study, (1 to 8) Preparation: directed individual study or research. May be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

596B. Directed Linguistic Analysis, (1 to 8) Preparation: completion of M.A. degree requirements. Intensive work with native speakers by students individually. May be repeated for credit. S/U grading.

597. Preparation for M.A. Comprehensive and Ph.D. 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 M.A. course requirements. May be repeated for credit. S/U grading.


599. Research for Ph.D. Dissertation, (1 to 16) Preparation: advancement to Ph.D. candidacy. May not be applied toward Ph.D. course requirements. May be repeated for credit. S/U grading.

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Archie Kleingartner, Ph.D.
J. Clayburn La Force, Jr., Ph.D.
Barbara S. Lawrence, Ph.D.
Bennet P. Lientz, Ph.D.
James B. MacQueen, Ph.D.
John J. McDonough, D.B.A.
Bill W. McKelvey, Ph.D.
Bruce L. Miller, Ph.D.
Daniel J.B. Mitchell, Ph.D. (Ho-Su Wu Professor Emeritus of Management)
Frank G. Mittelbach, M.A.
Donald G. Morrison, Ph.D. (William E. Leonhard Professor Emeritus of Management)
Rosser T. Nelson, Ph.D.
William P. Pierskalla, Ph.D.
Richard W. Roll, Ph.D. (Joel Fried Professor Emeritus of Applied Finance)
Hans Schollhammer, D.B.A.
Carol A. Scott, Ph.D.
John P. Shelton, Ph.D.
George A. Steiner, Ph.D., Litt.D.
E. Burton Swanson, Ph.D.
Walter N. Torous, Ph.D. (Lee and Seymour Graff Endowed Professor Emeritus)
Harold M. Williams, J.D.
Bruce G. Willison, M.B.A.

Associate Professors
Andrew S. Ainslie, Ph.D.
Corrine B. Bendersky, Ph.D.
Anand V. Bodapati, Ph.D.
Bruce L. Carlin, Ph.D.
Felipe Caro, Ph.D.
M. Keith Chen, Ph.D.
Noah J. Goldstein, M.A., Ph.D.
Phillip J. Leslie, Ph.D.
Guillaume Y. Roels, Ph.D.
Jennifer R. Shapiro, Ph.D.
Suzanne B. Shu, M.Eng., M.B.A., Ph.D.
Miguel M. Unzueta, Ph.D.
Maja J. Young, Ph.D.
Robert Zeithammer, Ph.D.
Shi Zhang, Ph.D.

Assistant Professors
Daniel D. Andrei, Ph.D.
Christian Barz, Ph.D.
Leonardo A. Bursztyn, Ph.D.
Christian Dippel, M.A., Ph.D.
Henry L. Friedman, Ph.D.
Paola Giuliani, Ph.D.
Barney P. Hartman-Glaser, Ph.D.
Hai E. Hershey, Ph.D.
Brett W. Hollenbeck, Ph.D.
Keyvan A. Kashiokoli, Ph.D.
Iain J. Larkin, Ph.D.
Eliass F. Long, Ph.D.
William Mann, Ph.D.
Beatrice Michaeli, Ph.D.
N. Bugra Ozel, Ph.D.
Subramanian Ramanarayanan, Ph.D.
Lukas M. Schmidt, Ph.D.
Jason A. Snyder, Ph.D.
Steven A. Spiller, B.A., Ph.D.
Suhas A. Srivastava, Ph.D.
Raphael C. Thomasden, Ph.D.
Nico Voigtlander, M.Sc., Ph.D.

Senior Lecturers
Gonzalo Freixes, J.D.
Ariella D. Herman, Ph.D.
David S. Ravetch, M.A.
Robert S. Spich, Ph.D.
Eric H. Sussman, M.B.A.

Lecturers
Derek J. Alderton, M.B.A.
Julie Ann Gardner-Treloar, M.B.A.
Peter Guber, LL.M.
Jane Guerin, J.D.
Paul B. Habibi, M.B.A.
Gordon L. Klein, J.D.

Danny S. Litt, M.B.A.

Adjunct Professors
William M. Cockrum, M.B.A.
Janis S. Forman, Ph.D.
Robert F. Foster, M.B.A.
George T. Geis, Ph.D.
Farhad A. Hagigi, Ph.D.
Jason C. Hsu, M.Sc., Ph.D.
Robert M. McCarrn, Ph.D.
Gerald Nickelsburg, Ph.D.
Peter S. Pao, Ph.D.
James R. Stengel, M.B.A.

Adjunct Assistant Professors
Arielle A. Audenaert, M.A.
James J. Kim, M.Eng., M.B.A.
Andres Terech, Ph.D.

Scope and Objectives
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 (M.B.A.) master’s and a Master of Financial Engineering (M.F.E.), as well as an Executive M.B.A. Program designed for working managers who are moving from specialized areas into general management and a three-year Fully Employed M.B.A. Program for emerging managers. The school also offers dual Global Executive M.B.A. degrees with the National University of Singapore (NUS) Business School and with the Universidad Adolfo Ibáñez (UAI) in Santiago, Chile, that prepare participants for top positions in organizations around the world. A Ph.D. in Management is also offered (an M.A. degree may be earned in the process of completing Ph.D. requirements), as are a certificate Executive Program and research conferences and seminars for experienced managers.

The school offers an undergraduate minor in Accounting and several undergraduate courses in management. Enrollment in these courses, although open to all University students who have completed the requisites, is limited.

Undergraduate Study

Accounting Minor

The Accounting minor provides students with a comprehensive accounting background; admission is competitive and based on overall UCLA grade-point average, grade-point average in preadmission courses, and the grades in Management 1A and 1B. Decisions on admission to the minor are made by the Anderson School Accounting Area. 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.

To enter the minor, students must (1) have a minimum cumulative UCLA grade-point average of 3.2, (2) complete all required preadmission courses with a minimum course grade-point average of 3.2, and (3) receive grades of B or better in Management 1A and 1B. Repetition of more than one preadmission course or of any preadmission 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. For further information, see http://www.anderson.ucla.edu/programs-and-outreach/accounting-minor.

Required Preadmission 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 1B are not taken at UCLA, students must complete courses 120A and 122.

Required Upper Division Courses (36 units): Management 120A, 120B, 122, 127A, and three courses from 107, 108, 109, 123, 124, 126, 127B, 127C, 128, 130A.

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 preadmission courses. Only one preadmission and one upper division course repeat is allowed.

Each preadmission 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 requirement. Each management course must be completed at UCLA with a grade of C or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The John E. Anderson Graduate School of Management offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Management, the Master of Business Administration (M.B.A.) degree, and the Master of Financial Engineering (M.F.E.) degree. The school also offers the Executive M.B.A. Program (EMBA), Fully Employed M.B.A. Program (FEMBA), Global Executive M.B.A. for the Americas (dual degree program with the Universidad Adolfo Ibañez in Santiago, Chile), and Global Executive M.B.A. for Asia Pacific (dual degree program with the National University of Singapore Business School).


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.

88. Lower Division Seminar: Special Topics in Management. (1 to 4) Seminar; three hours; outside study, for hours. Requisite: course 1. May be taken three times: 1A. Introductory 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.

58. Survey of Management. (3) Lecture, three hours. Requisite: course 1B. 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.

106. Principles of Economics. (3) Lecture, three hours. Not open to freshmen. Essentials of contracts, agency, partnerships, corporations, and other select areas of economics in a business environment. P/NP or letter grading.

107. Business Communications. (4) Lecture, three hours. Requisite: course 1B. Communication of business information to internal and external audiences. Written and informative and persuasive presentations on key management issues. Critique of all efforts; certain efforts to be videotaped for review. P/NP or letter grading.


121. Ethical Leadership in Accounting. (4) Lecture, seven and one-half hours. Not open to freshmen. Review of range of ethical considerations in business decisions involving individuals, corporations, society, and international business. Analysis of cases for presentation and discussion. What is ethical dilemma posed? What is range of possible decisions and band of ethical choices supporting them? Offered in summer only. Letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisite: course 1B, one statistics course. Nature, objectives, and procedures of cost accounting and control; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost reports; joint-product costing; distribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisite: course 120B. Comprehensive study of procedures used in verification of financial statements and related information, including ethical, legal, and other professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.


125. Special Applications in Accounting. (4) Requisite: course 120B. Recommended: course 122. Design for seniors. Use of "Manager," a computer program that simulates experience on a senior management team. Under real and sometimes adverse economic conditions, teams must make strategic and tactical decisions, evaluate performance results, and compete for key resources, market share, and business opportunities. Emphasis on theories of return on equity, product life cycles, product line management analysis, issuing debt versus equity, and other topics that allow students to apply accounting principles learned in previous courses. P/NP or letter grading.


127A. Tax Principles and Policy. (4) Lecture, three hours. Requisite: course 120B. Study of fundamental concepts in taxation problems encountered by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 120B. Study of tax issues arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.

127C. International Taxation. (4) Lecture, three hours. Recommended requisite: course 127A. Study of tax areas of international taxation from U.S. regulatory perspective: taxation of American citizens and companies conducting business in international arena (outbound transactions) and taxation of foreign nationals and companies who invest or conduct business in the U.S. (inbound transactions). P/NP or letter grading.

128. Special Topics in Accounting. (4) Lecture, three hours. Requisite: course 120B. Selected topics in public accounting, such as audit and fraud examination, mergers and acquisitions, public-company stock options, going-public issues, and other issues. P/NP or letter grading.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles in financial analysis, planning, and control. Extensive use of problems and cases to illustrate analytical techniques employed in decision making. P/NP or letter grading.


132. Financial Planning. (4) Lecture, seven and one-half hours. Not open to freshmen. Application of behavioral finance to domestic world. Biases and simplifying rules of thumb prominent in students' real-life decisions, whether they are choosing which wine to buy or deciding whether to get an M.B.A. Effect of these behavioral influences and consideration of some ways to adjust for them, helping people spend wisely, invest for future, and generally live happier lives. How behavioral principles can turn profit by developing new financial services and products for consumers. Offered in summer only. Letter grading.

133. Investment Principles and Portfolio Management. (4) Lecture, three hours. Requisite: course 130A. Principles underlying investment analysis and policy; salient characteristics of governmental and corporate securities; policies of investment companies and investing institutions; relationship of investment policy to money markets and business fluctuations; security price-making forces; construction of personal investment vehicles and biotechnology companies. Offered in summer only. Letter grading.

134. Options, Futures, and Derivative Securities. (4) Lecture, seven and one-half hours. Not open to freshmen. Introduction to derivative markets. Derivatives are both exchange traded and over-the-counter securities. Derivative markets are world's largest, with emphasis on options, futures and forward contracts. Study of financial markets and financial instruments, including derivatives such as options, futures and forward contracts. Derivative markets are world's largest and most liquid. Focus on organization, role, and evolution of put and call options markets, futures and forward markets, and their relationships, with emphasis on arbitrage relations, valuation, and hedging with derivatives. Full introduction to evolution of modern derivatives pricing and hedging theory and practice—from basic features of futures and options to binomial option pricing models and Black-Scholes formula for stocks, to advanced stock option models, to aspects of measuring volatility, coping with trading costs, and to modifications required to value and hedge derivative options. Offered in summer only. Letter grading.


141. Data and Decisions in Business. (4) Lecture, seven and one-half hours. Not open to freshmen. Business decisions are made with partial information in uncertain environments. Introduction to data and models that are appropriate for generating information useful in decision making and to framework for analyzing decisions based on partial information. Development of methods for dealing with uncertainty. Letter grading. P/NP or letter grading.

142. Information Technology in Accounting. (4) Lecture, seven and one-half hours. Not open to freshmen. Information systems, and the use of technology in accounting in the process of modeling in managerial decision making, with focus on important types of models, their formulation and application, and insight and information that may be gained through the process of modeling. Enables managers to understand role of quantitative models in firms that are most often applicable in business planning and decision making. Discussion of applications in area of accounting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solutions, and understanding of mathematical versus engineering approaches to decision making. Letter grading.

143. Technology and Operations Management. (4) Lecture, seven and one-half hours. Not open to freshmen. For students interested in pursuing careers in high technology management, specifically as management consultants in accounting firms. Fundamentals of decision making and evaluating various alternatives to creating, implementing, marketing, and managing new technologies. How to differentiate technology products, market them, and leverage a variety of aspects to develop effective competitive strategies. Frameworks include technology adoption curve, developing whole products, product platform and product line strategy, program management, managing disruptive technology adoption, target market scenarios, managing through strategic dissonance, and compelling value creation. Studies of high technology cases ranging from semiconductors and online platforms to growth vehicles and biotechnology companies. Offered in summer only. Letter grading.

150. Elements of Industrial Relations. (4) Principles and methods of effectively utilizing human resources in organizations, including the legal, economic, and other environmental factors and current issues in industrial relations.

151. Business Leadership. (4) Lecture, seven and one-half hours. Not open to freshmen. Designed to enhance student knowledge of and competency in leadership. Conceptual framework grounded in principles of individual, group, and organizational behavior. The focus of the course has been sufficiently scientifically validated to point of becoming so dominant that it has driven out other models. Different perspectives offered on leadership, with emphasis on development of skills that support effective leadership. Combination of readings, lectures, cases, experiential exercises, and class discussion to allow students to determine their own leadership strengths and limitations, and to develop plans for maintaining/enhancing their strengths and overcoming their limitations. Offered in summer only. Letter grading.

152. Business Strategy. (4) Lecture, seven and one-half hours. Not open to freshmen. Fundamentals of developing effective business plans, both in presentation and written form. Basic principles of designing and articulating plans for sales, marketing, product or service, operations, financial management, and staffing functions of new startup businesses. How to develop well-written investment-quality business plans and business plan presentations. Understanding the strategic processes required to produce such plans, improve student writing and oral presentation skills, and formally present their business plans to audience of angel and venture capital during summer term.

153. Human Resources. (4) Lecture, seven and one-half hours. Not open to freshmen. For students interested in pursuing careers in human resources departments of business organizations, drawing on social sciences to identify key human resources challenges, the organizational and functional effectiveness. Topics include challenges of making decisions effectively, motivating others to implement one’s vision, managing groups and teams, and influencing those who resist ideas. Exploration of these issues using readings, cases, lectures, discussions, guest speaker, and experiential exercises. Why smart people make bad decisions, use and abuse of authority, extrinsic and intrinsic motivation, performance management, group formation, group process, explicit and implicit prejudice, stereotypes and their consequences, principles of persuasion and negotiation. Offered in summer only. Letter grading.

155. Organizational Behavior. (4) Lecture, seven and one-half hours. Not open to freshmen. Designed to provide practical guidance to managing behavior in organizations, drawing on social sciences to identify key human resources challenges, the organizational and functional effectiveness. Topics include challenges of making decisions effectively, motivating others to implement one’s vision, managing groups and teams, and influencing those who resist ideas. Exploration of these issues using readings, cases, lectures, discussions, guest speaker, and experiential exercises. Why smart people make bad decisions, use and abuse of authority, extrinsic and intrinsic motivation, performance management, group formation, group process, explicit and implicit prejudice, stereotypes and their consequences, principles of persuasion and negotiation. Offered in summer only. 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 other investors when forming and financing new businesses. How to develop start-ups, spinouts from existing company, 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. Fundamentals of developing effective business plans, both in presentation and written form. Basic principles of designing and articulating plans for sales, marketing, product or service, operations, financial management, and staffing functions of new startup businesses. How to develop well-written investment-quality business plans and business plan presentations. Understanding the strategic processes required to produce such plans, improve student writing and oral presentation skills, and formally present their business plans to audience of angel and venture capital during summer term.

175. Elements of Real Estate and Urban Land Economics. (4) Examination of business decision making as related to logical forces shaping cities and influencing real estate market functions and land uses. Emphasis on decision making as it relates to acquiring, building, financing, managing, marketing, and using urban property.

180. Special Topics in Management. (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. Leadership Principles and Practice. (4) Knowledge and skills leading to effectiveness in interpersonal relations. Understanding oneself as a leader and others as individuals and as members of working groups. Understanding of group process, including group leadership. Lectures and “sensitivity training” laboratory.

195. Community or Corporate Internships in Management. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting at community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for max. 8 units. May be taken 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 problems. 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 (growth, inflation, unemployment, interest rates, and exchange rates), industry data, and firm data. Letter grading.

201B. Econometrics and Business Forecasting. (4) Lecture, three hours. Development of standard 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.

202B. Economic Consulting and Applied Managerial Economics. (3) Three hours. Requisites: courses 402, 405. Use of economic methods to analyze issues of intellectual property, environmental damage, trademark infringement, brand value, and consumer preferences. Focus on econometric thinking and problem solving using case studies as basis for lectures and homework. S/U or letter grading.

203A. Economics of Decision. (4) Discussion, three hours. Preparation: basic probability theory. Basics of single-person decision theory and introduction to noncooperative game theory. Examination in some detail of von Neumann/Morgenstern expected utility theory. Other topics in decision theory include subjective expected utility, and departures from expected utility behavior. S/U or letter grading.


205B. Market Power, Mergers, and Antitrust. (4) Lecture, three hours. Requisite: course 405. Topics in applied industrial organization, including merger policy, differentiated product demand, market power, and Department of Justice and Federal Trade Commission Merger Guidelines. Examination of issues in antitrust based on law and economics, with emphasis on practice and measurement. S/U or letter grading.

209. Elements of Economic Organization. (4 or 6) (Formerly numbered M209.) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization. Examines the nature of business transactions and allocation of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, distribution and marketing agreements, including franchising, motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. In Progress (M209A) and S/U or letter (209B) grading.

210A. Mathematical Programming. (4) Discussion, three hours. Preparation: linear algebra, comprehensive development of theory and computational methods of linear programming, with applications to a variety of industries. S/U or letter grading.

210B. Applied Stochastic Processes. (4) Discussion, three hours. Preparation: probability theory at level of Electrical Engineering 131A or Mathematics 170A or Statistics 100A. Topics include Poisson processes, renewal theory, Markov chains, and Markov decision processes, with emphasis on problem formulation, decision making, and characterization of optimal policies. Specific applications include traditional operations research topics (inventory, queueing, maintenance, reliability), as well as several in microeconomics (search and research and development). S/U or letter grading.

210C. Network Flows and Integer Programming. (4) Discussion, three hours. Preparation: linear program. Survey course to (1) lay foundations for more advanced study of graphs, network flows and models, and integer programming, and their applications, (2) establish connections between these technical foundations and real problems drawn from many areas of management, and (3) build professional skills needed to apply these tools. S/U or letter grading.

211A. Nonlinear Mathematical Programming. (4) Discussion, three hours. Requisites: course 210A, Mathematics 32A or 33A. Applications of optimization for situations where models must be nonlinear, with special emphasis on case of “concavity.” Topics include classical approaches to optimization, theory of optimality and duality, main computational approaches, and survey of currently available computer software. S/U or letter grading.

211B. Large-Scale Mathematical Programming. (4) Discussion, three hours. Requisite: course 210A. Theory, methods, and applications of optimization for situations where models are large and have special structure, as is often the case in real applications. Focus on ways of exploiting special structures with combinatorial, multivariant, and stochastic aspects in pursuit of computational tractability. S/U or letter grading.

213C. Introduction to Multivariate Analysis. (4) Discussion, three hours. Preparation: working knowledge of differential calculus and linear algebra. Elementary statistical theory, multivariate variates, basic probability theory, and univariate mathematical statistics. Introduction to use of multivariate models in management research to organize and represent information. Concepts from co-variance, and correlation models; survey of multivariate statistical procedures (e.g., multiple discriminate analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

214. Managerial Decision Making. (4) Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structuring, chance processes, forecasting, confidence, likelihood judgment, risk perception and risk-taking, decision under uncertainty, multiattribute choice, framing and mental accounting, organizational decision-making, choice architecture, happiness, and well-being. S/U or letter grading.

215A. Negotiations Analysis. (4) (Formerly numbered 215.) Lecture, three hours. Series of negotiation exercises to foster development of students’ negotiation skills and experience. Use of economic and game-theoretic concepts in debrief to gain insight and develop framework for understanding negotiation principles applicable. S/U or letter grading.


217A. Decision Analysis. (4) Lecture, three hours. Requisite: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other managers will do. Course materials used to provide framework for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treasure hunting, and bidding for employment.


222. Cost Accounting 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 decisions for careers in consulting, private equity, and general management. S/U or letter grading.


224. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introductory course that uses practical approach to teach students to recognize, understand, and manage legal issues. Topics include contracts, tort, property, intellectual property law, business formation, corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading.

M225. Law and Management of Nonprofit Organizations. (4) (Formerly numbered 225.) (Same as Public Policy M229.) Lecture, three hours. Introduction to nonprofit, impact, and financial 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, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.


228. Financial Reporting and Equity Valuation. (4) Lecture and cases, three hours. Requisite: course 403. Examination of topics arising from financial accounting data, with emphasis on construction of proforma financial statements and application of discounted cash flow and residual income valuation approaches. Consideration of complications posed by capital structure, recapitalizations, derivative securities.
The page contains a list of course descriptions and requirements, which include topics such as financial management, corporate liabilities, valuation of derivatives, and research topics in finance. The courses cover a variety of subjects, including but not limited to:

- Corporate Finance
- Risk Management
- Behavioral Finance
- Empirical Research in Accounting
- Money and Capital Markets
- International Financial Markets
- Financial Institutions
- Financial Management of Multinational Corporations
- Venture Capital and Private Equity
- Fundamentals of Corporate Finance and Risk Management
- Derivatives

Each course description includes information on the course format (lecture, seminar, colloquium), prerequisites, credit hours, and grading policies. Some courses are specifically designed for graduate students, while others are accessible to undergraduate students. The courses are intended to provide students with a deep understanding of financial theories, application of financial principles, and the ability to critically evaluate financial research.


237H. Quantitative Asset Management. (4) Lecture, three hours. Limited to Master of Financial Engineering Program students. Application of state-of-art quantitative techniques to asset management problems. Asset pricing models in depth, portfolio optimization, and dynamic asset management strategies such as pairs trading, long-term and short-term momentum trades, and strategies that address behavioral finance anomalies. Major forms of asset management including quant funds, exchange traded funds (ETFs), special investment vehicles, and some primary types of trading strategies used by these organizations. S/U or letter grading.


237J. Asset-Backed Security Markets. (4) Lecture, three hours. Limited to Master of Financial Engineering Program students. Exploration of uses and valuation of asset-backed securities, including mortgage-related securities and securities backed by credit cards, leases, and bank debt. Particularly attention paid to mortgage-related securities because of sheer size and importance of this market, as well as the fact that pooling and trancheing necessary for securitization can be done in mortgage collateral. Introduction to underlying mortgage instruments, as well as other securities derived from these mortgages. Coverage of term structure and prepayment models normally used to value and hedge these securities. Investigation of credit risk in mortgages and other instruments. S/U or letter grading.

237K. Introduction to Credit Markets. (4) Lecture, three hours. Limited to Master of Financial Engineering Program students. Introduction to building and implementation of credit models for use by financial institutions and quantitative investors. Basics of corporate debt securities and in-depth introduction to credit derivatives markets. Discussion of structured credit products such as both cash and synthetic collateralized debt obligations (CDOs). S/U or letter grading.

237M. Special Topics in Financial Engineering. (2 to 4) Lecture, three hours. Limited to Master of Financial Engineering Program students. In-depth examination of problems or issues in one area of current concern in finance presented in semester. May be repeated for credit. S/U or letter grading.

237N. Applied Finance Project. (4) Fieldwork, four hours. Limited to Master of Financial Engineering Program students. A quantitative finance project that explores a finance problem that might be met in practice and involves development or use of some tools developed in M.F.E. Program. S/U or letter grading.


238. Special Topics in Finance. (4) Lecture, three hours. Requisites: courses 230 or 430, 408. Selected topics in finance theory, applications, and principles. In special, an opportunity may be repeated for credit with instructor change. S/U or letter grading.

239A. Theory of Exchanges under Uncertainty. (4) Lecture, three hours. Primarily designed for Ph.D. students, but well-prepared master's students may find course useful in their career preparation. Foundations of theory of exchange developed as introduction to theoretical literature on pricing of capital assets. S/U or letter grading.

239B. Theory of Investment under Uncertainty. (4) Lecture, three hours. Primarily designed for Ph.D. students, but well-prepared master's students may find course useful in their career preparation. Foundations of theory of firm capitalization and investment decisions, with special attention to questions of exchange and allocative efficiency. S/U or letter grading.

239C. Empirical Research in Finance. (4) Lecture, three hours. Preparation: training in econometrics. Primarily designed for Ph.D. students, but well-prepared master's students may find course useful in their career preparation. In-depth study of empirical research in field of finance, statistical methodologies applied to test market efficiency, and asset pricing theory. S/U or letter grading.

239D. Ph.D. Seminar: Corporate Finance. (4) Seminar, three hours. Requisite: course 410. Topics vary each term and have in-depth discussion, 90 minutes. Designed for Ph.D. students in decisions, operations, and technology management, service platforms, and impact of information technologies 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, analy-
246A. Business and Environment. (4) Lecture, three hours. Overview of many ways in which environmental issues interact with main functional areas of business: finance, marketing, strategy, operations, accounting. Basic introduction to background of environmental issues, with focus primarily on business aspects. Specific topics vary from year to year, but course usually addressed by company manager who should know about environmental issues in business. S/U or letter grading.

250D. Patterns of Problem Solving. (4) Lecture, three hours. Acquisition of strategies that enhance adaptive planning and real-time judgment, 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.

251. Managing Human Resources. (4) Management of people in organizations, designed for managers as well as personnel specialists. Organized at three related but distinct levels of analysis: (1) day-to-day utilization of people; (2) organizational resources should achieve optimal productivity, satisfaction, retention, and development; (2) personnel management function or system that performs specialized human resource management which involve management of human resources, including strategic planning for human resources, union/management relations, and design of corporate culture. S/U or 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. Consideration of number of well-studied persuasion and influence strategies that result in greater buy-in for one’s ideas, initiatives, proposals, products, and requests. Letter grading.

253. International Political Economy. (4) Lecture, three hours. Examination of political, legal, and social institutions to demonstrate varieties of modern capitalisms and business/government relations around world. Analysis of major domestic policy options that nations are pursuing in response to economic global- ization and introduction to international coalitions being formed as result of globalization, including NAFTA, and to nongovernmental organizations created to respond to specific international problems such as global environmental crisis. Letter grading.

254. Pay and Rewards in Organizations. (4) Lecture, three hours. Systematic treatment of pay (compensation and rewards reward) in organizations with emphasis on design, implementation, and outcomes of organizational pay and reward systems and practices that are shaped by strategic, labor market, and motivational considerations. Specific topics include variable compensation (e.g., bonus, profit-sharing, stock ownership, and stock option plans) and noncompensation rewards; compensation and rewards for performance and in entrepreneurial and public organizations; fringe benefits; executive compensation; and international and comparative compensation/reward practices. S/U or letter grading.

264A. Data Analytics for Marketing and Finance. (4) Lecture, three hours. Designed for prospective users of research results rather than for specialists in research. Marketing research is aimed to management decision making. Development of problem-analysis skills, providing knowledge of concepts and methods of marketing research with increased sensitivity to limitations of marketing data. Letter grading.

265. Marketing Strategy and Planning. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of challenges to creating and maintaining strong brands. Topics include building brand knowledge and identities, marketing mix and brands, brand architectures, and brand equity. Letter grading.

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terests of instructor and students. Individual projects and reports. May be repeated for credit. S/U or letter grading.

269A. Theory in Marketing. (4) 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.

269B. Research in Marketing Management. (4) Discussion, three hours. Designed for Ph.D. students. Study of research issues associated with marketing management decisions. Recent research in areas of strategic marketing, market segmentation, new product development and introduction, pricing strategies, channel policy, promotion decisions, and sales force management examined critically. Review of both quantitative and behavioral approaches to studying these issues.

29C. Quantitative Research in Marketing. (4) Discussion, three hours. Designed for Ph.D. students in management and related fields. Students are as-sumed 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.

29D. Behavioral Research in Marketing. (4) Seminar, three hours. Designed for Ph.D. students who are conducting research in consumer behavior or related areas. Empirical research in consumer behavior sur-veyed and critically evaluated from theoretical as well as practical perspectives. S/U or letter grading.

29E. Special Research Topics in Marketing. (4) Designed for Ph.D. students. Advanced selected topics in marketing, with emphasis on thorough ex-amination of one or two topics in current research and theory. May be repeated for credit.

268X-269Y-268Z. Workshops: Marketing. (1-1-2) Discussion, three hours. Designed for Ph.D. students. Required of all students during first two years of their Ph.D. work. Series consists of number of leading scholars in marketing and related disciplines who make presentations to marketing faculty and Ph.D. students. Active participation and intellectual inter-change that helps students gain richer perspective on field of marketing. In Progress (268X, 269Y) and S/U or letter (269Z) grading.


274A. Special Topics in Information Systems. (4) Seminar, three hours. Designed primarily for Ph.D. students. Advanced selected topics in current research and state-of-art developments in information systems field. Study and discussion of research presented. May be repeated for credit. S/U grading.


M277. Real Estate Finance Law. (1 to 8) (Same as Law M220X). Lecture, three hours. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts and other mortgaging substitutes, assignments of rents, receiversonships, prepay-ment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mort-gage lenders, construction lending, future advances lending, and securitization in depth. Lecture 277A (formerly numbered M277A), Lecture, three hours. Course 277A is enforced requisite to 277B. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts and other mortgaging substitutes, assignments of rents, receiversonships, prepay-ment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mort-gage lenders, construction lending, future advances lending, and securitization in depth. Lecture 277A and Lecture 277B grading.

278A. Urban Real Estate Financing and Investing. (4) Lecture, three hours. Requisites: courses 408, 413. Investor-oriented course in which real estate and business trends are evaluated to determine alterna-tive real estate investment opportunities. Use of cur-rent financial, economic theories and techniques to real estate investment opportunities in cases and study short cases to illustrate de velopment of investment strategies. S/U or letter grading.

278A. Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 408, 430. Devel-opment of understanding of principal issues in volved with real estate investment and finance. Topics include real estate financial analysis and valuation in variety of contexts (single and multifamily residential, commercial/industrial, shopping center, and hotel properties), real estate taxation, real estate law, develop-ment process, process, and reuse, and workout of troubled properties. S/U or letter grading.

279B. Entrepreneur Real Estate Development. (4) Lecture, three hours. Requisites: courses 278A (or 277A), 408, 430. Introduction to various aspects of real estate development from perspectives of entre-preneur and investor. Coverage of all types of develop-ments, including single family, multifamily, hotel, of- fice, retail, and industrial. Industry guest speakers to help reinforce principles taught. Real estate develop-ment simulation and group presentations to panel of investors included. S/U or letter grading.

280B. Personal and Professional Development. (4) Discussion, three hours. Designed for Ph.D. students. Provides setting where students may explore their own professional values and approaches in process of maturing and self-fulfillment and systems effective-nce of effects of organizational and managerial practices on individual self-fulfillment and systems effective-nce. Theories of organizational change and action/re- search methods in organization development. Theory merged with practice through seminar discussions of field observations. S/U or letter grading.

284C. Managing Entrepreneurial Organizations. (4) Lecture, three hours. Issues involved in developing and managing entrepreneurial organizations. Topics include organizational growth, managerial tools, stra-tegic planning, organizational design, management development, control systems, and cultural management. Examination of transitions that in-dividuals must make as organizations grow. S/U or letter grading.


285B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Interpersonal and personality factors affect-ing 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 per- ceptual, 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 cases and readings. Emphasis will focus on improving practical negotiating skills through experi-mental learning (i.e., negotiations simulations). Partici-pants learn not only to enhance their individual abili-ties but also to develop small groups that are able to ana-lyze contexts for most effective application of these skills. S/U or letter grading.

287. Groups and Their Facilitation. (4) Discussion, three hours. Development of cognitive and experien-tial understanding of dynamics of small group training and its facilitation, including “sensitivity”/basic groups, group counseling, self-help groups, small groups, and committees in managerial decision making. Analysis of relevant theory, research findings, and case studies. S/U or letter grading.

288A. Selected Topics in Behavioral Science. (4) Discussion, three hours. Designed for graduate stu-dents. Theories of human behavior fundamental to study of individual, group, organizational, and cultural behavior. Exploration in depth of selected theoretic positions, extending and consolidating behavioral sci-ence knowledge and application. May be repeated for credit. S/U or letter grading.

289X-289Y-289Z. Global Economics and Manage-ment Workshops. (1-1-2) Seminar, two hours. De-signed for Ph.D. students. Development of ability to critically evaluate research in field related to study of economics. Papers presented in colloquium format by leading scholars in economics. Active participation and intellectual interchange encouraged through dis-cussion of papers during colloquium. May be re-pated for credit. S/U grading.

M292A. Research and Development Policy. (4) (Same as Public Policy M280A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; interaction of science, technology, and organizational goals; assessing of and forecasting technological future. S/U or letter grading.

M292B. 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) (Formerly numbered 239A.) (Same as Public Policy M281.) Lecture, three hours. Evaluation of certain criticisms made by business of American political system. Designed to provide clearer understanding of principal features of American politics, especially as they influence business enterprise. S/U or letter grading.

M293C. Ethical Considerations in Business. (4) Lecture, three hours. Examination of a range of ethical considerations in business decisions involving the individual, corporation, society, and international business. Analysis of cases for classroom presentation and discussion. S/U or letter grading.

294. Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 405 or Economics 201A. Knowledge of empirical methods and basic 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.

295A. Entrepreneurship and Venture Initiation. (4) Exploration in entrepreneurship particularly concerned with the process of operation of new business ventures. Significant and crucial aspects of exploring new business opportunities and starting a business.

295B. Small Business Management. (4) Exploration of crucial aspects in managing small business enterprises. Emphasis on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solution.

295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurship and effective implementation of entrepreneurial strategies in large industrial enterprises. Emphasis primarily on managerial affects aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context.


296A. International Business Management. (4) Discussion of international issues and policy action with context of multinational corporation, with emphasis on problems of adaptation to different socio-cultural, legal, political, and economic environments. Characteristic operating problems of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfer, investment incentives. S/U or letter grading.

297A. International Business Strategy. (4) Requisites: courses 295A or 405A. Legal environments in which international business operates; international business relationships and organizations; international taxation, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration of international business disputes; exportation of foreign investments; international business and government relations. S/U or letter grading.

297D. International Business Negotiations. (4) Requisite: course 296A. Exploration of international business negotiations of multinational enterprises with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/dis solution, treatment of multinationals in the domestic and multinational business market, terms/conditions for technology transfer, investment incentives. S/U or letter grading.

297E. Business and Economics in Emerging Markets. (4) Requisite: course 291A or 405. Analysis of changing economic, political, cultural, and sociocultural conditions in developing countries as they affect the business environment. Process of economic growth, market-oriented reforms, and creation of domestic capital markets. Inflation and stabilization programs, identification of business risks and opportunities, and as tools needed to manage firms under these conditions. S/U or letter grading.

298A. Special Topics in Management Theory. (4) Designed for Ph.D. students. Examination of depth problems or issues of current concern in management theory. Emphasis on recent contributions to theory analysis, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distingnished visiting faculty. May be repeated for credit.

298B. 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.

298C. Special Topics in Management. (2) Lecture, 90 minutes. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

298F. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

298G. Special Topics in Management. (4) Lecture, three hours. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298H. Special Topics in Management. (2) Lecture, 90 minutes. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298I. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298X-298Y. 298Z. Management Strategy and Policy Workshops. (1-1-2) Discussion, three hours. Designed for Ph.D. students. Intended to develop ability to critically analyze and write case analyses and to present views 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 workshops, as well as through competition for research awards. May be repeated for credit. S/U grading.


299R. Research Methods in Management. (4) Discussion, three hours. Designed for Ph.D. students. Provides feedback and evaluation of papers prepared for research requirement. Quarterly meetings to discuss expectations of research committee and Doctoral Office. Students must enroll the term in which they are submitting their research paper. May be repeated for credit. S/U grading.

375. Teaching Apprentices Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

401A-401B. Managerial Problem Solving. (3-3) Discussion, three hours. Use of international business simulation and series of complex multifaceted cases to learn to apply M.B.A. core disciplines in real-world globally focused business problems. In Progress (401A) and letter (401B) grading.

402. Data and Decisions. (4) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.

402. Social Accounting. (4) Lecture, three hours. Designed for graduate students. Introduction to fundamental financial accounting methods and procedures, with emphasis on financial statements. Provides basis for firm unit letter grading with "languae of business." Accounting. Letter grading.


460. Global Macroeconomy. (4) Lecture, three hours. Prerequisite: courses 402, 403, 405. Provides analytical framework required for understanding way changing macroeconomic conditions in world economy affect economic growth, inflation, interest rates behavior, exchange rate determination, competitiveness, unemployment, and trade account. Provides skills to enable students to assess critically how developments in world economy affect particular industry environment. Letter grading.

408. Foundations of Finance. (4) 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) Lecture, three hours. Requisites: courses 402, 403. Principles and decision relations 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.


412. Management of Organizations. (4) Lecture, three hours. Preparation: completion of first-year core program. Integrative approach to theory and practice of management in complex organizations. Emphasizing management roles in designing organizational structures, creating/maintaining planning, control, information, incentive systems, different patterns of human interaction such structures and systems tend to produce.

413A. Managerial Computing. (4) Lecture, three hours. Individual computing in support of strategic analysis, decision making, and management communication. Use of personal productivity tools, such as Excel and VBA, and network resources for data access. Emphasis on hands-on exercises. S/U or letter grading.


421A–421B. Communication Development for Leaders I, II. (2–2) Lecture, three hours. Course 421A is enforced requisite to 421B. Key attributes, knowledge, skills, and strategies necessary to succeed communicatively in workplace. Examination of business presentation skills, visual and verbal persuasion skills, and interpersonal communication skills. Lectures, experiential activities, video analyses, and student activities supplemented by extensive individualized coaching by professor. In Progress (421A) and S/U or letter (421B) grading.

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of oral and written communication. Emphasizing audience analysis, persuasion, revising and editing, presentation of technical information, and uses of computer technology. Organized around writing and speaking exercises. Personal attention to students’ written communications and oral presentations.

424. Strategic Business Presenting. (2) Lecture, 90 minutes. Improvement of strategic business presenting skills such as presentation delivery techniques, visual and verbal persuasion principles, building arguments with supporting evidence, art of business storytelling, and other related topics, with focus on individual student presentations. Letter grading.


427. Global Access Program. (8) Fieldwork, 60 hours. Requisites: courses 402, 403, 405, 408, 410, 411, 414A, 420. Limited to Fully Employed M.B.A. Program students who have attended Summer 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. Exploration of 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. Letter grading.


440. International Preorientation. (1) Lecture, six hours. Limited to international students in M.B.A. program. Intensive communication workshop that meets six times (Saturdays included) per week for three weeks. Presentation of differing types of materials. Individual and working/leading teams for case analysis, cold call participation, presentations, and job search. Introduction to research and career resources. May not be applied toward M.B.A. degree. Offered in summer only. S/U grading.

444A. Introduction to Applied Management Research. (2) Lecture, two hours. Limited to full-time M.B.A. 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 (credit to be given only on completion of courses 444B and 444C).

444B–444C. Applied Management Research: Two-Quarter Plan. (4–4) (Formerly numbered 444A–444B) Fieldwork, four hours. Limited to full-time M.B.A. 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) faculty-guided implementation of new business or (3) pursuit of one faculty-led special research project worthy of publication in recognized academic research journal. In Progress (444B and S/U or letter 444C grading).

445. Applied Management Research. (8) Fieldwork, eight hours. Must be taken in second year (or its equivalent) for augmenting career-week 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 reporting of implementable recommendations. Letter grading.

451. Fieldwork in Organizational Development. (2 to 12) Fieldwork, to be arranged. Requisite: course 284B. Supervised practical fieldwork in organizational development consisting of self-directed experience, field group, total organization, and interorganizational settings. S/U or letter grading.

454. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of at least two terms of M.B.A. program. Must be taken after completion of first year in program. Students enrolled. Under direction of M.B.A. program senior associate dean or other supervising faculty advisor, students perform supervised practical experience or fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that includes reporting and assessment of fieldwork experience through combination of written or oral presentations and may include preparation of evaluations or consulting report concerning defined program of study. Letter grading.

455E. International Exchange Program. (2 to 16) Lecture, 30 hours; discussion, 10 hours. Students attend one to four M.B.A.-level courses at institutions with which the college has exchange agreements. Students will travel with faculty members and will become familiar with the values, attitudes, and aspirations of their peers at that institution. S/U or letter grading.

457. Fieldwork in Investment Management. (4) Discussion, three hours. Use of academic theories learned in a practical experience by managing a portfolio started with donated funds. Mirrors situations experienced by typical money management firms and includes investment strategy, asset allocation, security analysis, and organizational issues. S/U or letter grading.

458L. International Studies. (4) Lecture, three hours; presentations, site visits, and discussion, 20 hours. Preparation: completion of first-year core courses in Fully Employed M.B.A. Program. Taught in English. Intensive one-week program in one foreign country with five lectures at UCLA before and/or after trip. Courses taught by school faculty members in conjunction with faculty members from partner institutions in that country. Attendance at presentations by government officials and business executives in destination country. Exposure to business practices and operations in destination country through site visits, study of economy and political environment by comparing and contrasting it with U.S., and important historical and cultural aspects of destination country. May be repeated once for credit. Letter grading.

459E. International Exchange. (2 to 4) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in Fully Employed M.B.A. Program. Taught in English. Intensive one-week program in one foreign country. Courses taught by faculty members from partner institutions in destination country. Topics vary but are tailored to M.B.A. curriculum. Exposure to local business practices, visiting companies, and exploration of local cultural and historical sites. S/U or letter grading.

460A-460B. Managing Finance and Financing Emerging Enterprises. (2–2) Lecture, three hours. Course 460A is enforced requisite to 460B 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.

461A. Leadership Foundations I. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented to augment career-week study of management and decision-making skills of individuals. Use of readings, cases, decision simulations, and discussions to explore areas of charting job and career progression, working with others, and shaping work culture. S/U or letter grading.

461B. Leadership Foundations II. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461A, with focus on development of self-assessment and personalization 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 discussions. In Progress grading (credit to be given only on completion of course 461C).
461C. Leadership Foundations II. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461B. 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. In Progress grading (credit to be given only on completion of course 461E).

461E. Leadership Foundations III. (1) Lecture, one hour. Limited to Executive M.B.A. Program students. Continuation of course 461E. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. S/U or letter grading.


465A. Quantitative Methods for Managers. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Survey of modeling approaches to management problems. Emphasis on ability to recognize situations where models can be used advantageously, to work effectively with model building specialists, and to make good use of models once they have been developed. S/U or letter grading.

465B. Game Theory. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Conceptual framework for thinking strategically about business decisions. Examination of interactions between firm and parties external to it through lens of game theory. Framework based on ideas underlying game theory, such as recognizing interdependencies among players, getting away from win-lose mindset, importance of added value of players, anticipating other players’ reactions to one’s own actions. S/U or letter grading.

466A. Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive M.B.A. 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.

466B. Advanced Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive M.B.A. 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.


469. Management of Human Resources. (4) Formerly numbered 469A-469B.) Lecture, three hours. Limited to Executive M.B.A. Program students. Introduction to major areas of human resource management—personnel management, labor economics, labor law, and labor relations—accompanied by examination of economic theories, and research related to each of these topic areas, as well as some practical problems for managers posed by each. S/U or letter grading.

470A. Introduction to Strategic Management Research. (2) Fieldwork, two hours. Limited to Executive M.B.A. Program students. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of courses 470B and 470C).

470B. Strategic Management Research. (4) Fieldwork, four hours. Limited to Executive M.B.A. Program students. Preparation of strategic overview of selected corporation. Study of primary and secondary data, including (but not limited to) interviews of corporate executives, corporate financial and marketing data, industry reports, and customer and competitor interviews and/or surveys. In Progress grading (credit to be given only on completion of course 470C).

470C. Strategic Management Research. (4) Fieldwork, four hours. Limited to Executive M.B.A. Program students. Further research and analysis of one strategic issue facing selected company and identified in course 470B. Presentation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.

470D. Seminar: Policy Analysis. (2) Seminar, two hours. Limited to Executive M.B.A. Program students. Site visit to selected company, presentation of final reports, and evaluation of student efforts by corporate personnel. S/U or letter grading.

471A-471B. Management Practicum. (2-2) Lecture, three hours. Two-term individual or group (three to five students) project on global strategic issues designed to allow students to apply and enhance concepts learned in classroom. In Progress (471A) and Letter (471B) grading.

471C-471D. Management Practicum I, II. (4-4) Fieldwork, four hours every other week for 13 weeks. Limited to Global Executive M.B.A. for the Americas Program students. Two-term individual or group (three to five students) project on global strategic issues designed to allow students to apply and enhance concepts learned in classroom. In Progress (471C) and Letter (471D) grading.

472A. Marketing Strategy and Policy. (4) Lecture, four hours. Limited to Executive M.B.A. 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.

472B. Customer Information Strategy. (4) Lecture, four hours. Limited to Executive M.B.A. Program students. Exploration of innovation and marketing of products and services to customers. Use of creativity tools, such as brainstorming, and marketing science to create value and allocate resources so as to maximize revenues and profits that result. S/U or letter grading.

473A. Managerial and Organizational Processes. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Macroeconomic issues, including intergroup relations, design and functioning of organizations, and relationships of organizations to their environment. S/U or letter grading.


475. International Managerial Policies and Strategies. (4) Limited to Executive M.B.A. Program students. Limited to Executive M.B.A. Program students. Examination of selected policy issues in an international context, with emphasis on formulation and implementation of management strategies in multinational enterprises. Application of concepts of international economics and strategic frameworks to international corporate strategies.

476. Competitive Strategy and Business Policy. (4) Limited to Executive M.B.A. Program students. Study of general management task of forging a competitive strategy. Emphasis on economics of business rivalry within a variety of industrial settings and implications of changing environments on business strategy.

477. The Manager and Business/Society Relations. (4) Limited to Executive M.B.A. Program students. While organizations may, to some extent, choose their immediate environments, there are broad environmental factors and trends that affect organizational strategies and operations. Examination of emerging trends in key areas of government regulation, labor relations, international trade, basic economic structure, and social responsibility.

478. Selected Topics in Management. (2 to 4) Seminar, 90 minutes to three hours. Limited to Executive M.B.A. Program students. Examination of selected problems and issues in an area of current concern in management. S/U or letter grading.

479E. International Exchange: Executive M.B.A. Program. (2 to 4) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in Executive M.B.A. Program. Intensive one-week program in one foreign country, with courses taught by faculty members from partner institutions in destination country. Topics vary but are tailored to M.B.A. curriculum, including but not limited to finance, marketing, global economics, strategy, human resources, operations, and technology management. Exposure to local business practices, company site visits, and exploration of local culture and social activities.

480. Corporate Governance. (4) Lecture, three hours. Foundations for members of corporate boards of directors to understand their responsibilities, hone their skills, and learn to improve their practices. Topics include governance policies and skills, board risk management, managing top management team of corporations. Letter grading.

482. Negotiations Behavior. (4) Lecture, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn not only to enhance their individual abilities in dyadic and group situations but also to analyze contexts for most effective application of these skills. Letter grading.

483. Management of Technology and Innovation. (4) Lecture, three hours. Problems of managing technological innovation in Asia. Topics include incorporation of technological consideration into strategy, emerging technologies, and technological innovation through organizational design and leadership, e-business, and m-business. Letter grading.

485. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of opportunities, organizing, management, and implementation of systems, and effective venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and
MATERIALS SCIENCE AND ENGINEERING

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Yong Chen, Ph.D.
Bruce S. Dunn, Ph.D. (Nippon Sheet Glass Company Professor of Materials Science)
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Scope and Objectives

At the heart of materials science is an understanding of the macrostructure of solids. “Microstructure” is used broadly in reference to solids viewed at the subatomic (electronic) and atomic levels, and the nature of the defects at these levels. The macrostructure of solids at various levels profoundly influences the mechanical, electronic, chemical, and biological properties of solids. The phenomenological and mechanistic relationships between microstructure and the macroscopic properties of solids are, in essence, what materials science is all about.

Materials engineering builds on the foundation of materials science and is concerned with the design, fabrication, and optimal selection of engineering materials that must simultaneously fulfill dimensional, property, quality control, and economic requirements. The Department of Materials Science and Engineering also has a program in electronic materials that provides a broad-based background in materials science, with opportunity to specialize in the study of those materials used for electronic and optoelectronic applications. The program incorporates several courses in electrical engineering in addition to those in the materials science curriculum.

The undergraduate program leads to the Bachelor of Science degree in Materials Engineering. Students are introduced to the basic principles of metallurgy and ceramic and polymer science as part of the department’s Materials Engineering major. A joint major field, Chemistry/Materials Science, is offered to students enrolled in the Department of Chemistry and Biochemistry (College of Letters and Science). The graduate program allows for specialization in one of the following fields: ceramics and ceramic processing, electronic and optical materials, and structural materials.

Undergraduate Study

The materials engineering program is accredited by the Engineering Accreditation Commission of ABET. See http://www.abet.org.

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.

Materials Engineering B.S.

Capstone Major

The materials engineering program is designed for students who wish to pursue a professional career in the materials field and desire a broad understanding of the relationship between microstructure and properties of materials. Metals, ceramics, and polymers, as well as the design, fabrication, and testing of metallic and other materials such as oxides, glasses, and fiber-reinforced composites, are included in the course contents.

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; Physics 1A, 1B, 1C.

The Major

Required: Chemical Engineering 102A (or Mechanical and Aerospace Engineering 105A), Civil and Environmental Engineering 101 (or Mechanical and Aerospace Engineering 101), 108, Electrical Engineering 100, Materials Science and Engineering 104, 110, 110L, 120, 130, 131, 131L, 132, 143A, 150, 160, Mechanical and Aerospace Engineering 181A or 182A; 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 Aca-

120. Physics of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 104, 110 (or Chemistry 113A), introduction to electronic, 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 electronic conductivity, optical absorption, magnetic behavior, dielectric properties, and p-n junctions. Letter grading.

121L. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Corequisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, 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. Prerequisite: Descriptions of basic semiconductor materials for device processing: preparation and characterization of silicon, III-V compounds, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielectrics. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 104, and Chemical Engineering 20A or Mechanical and Aerospace Engineering 105A. Group theory fundamentals, crystallography, and surfaces. Phase diagrams. Examination of phase transformations. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, four hours; outside study, eight hours. Prerequisite: course 130. Diffusion in metals and ionic solids, nucleation and growth theory; precipitation from solid solution, eutectoid decomposition, design of heat treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxideresistant alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, two hours; outside study, four hours. Corequisite: course 131. Design of heat-treating cycles and performing experiments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals. Analysis of data. Comparison of results with theory. Letter grading.


C133. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) Lecture, two hours; laboratory, 90 minutes. Processes of extraction, alloying, surface patination, metallic coat-
ings, corrosion, and microstructure of ancient and historic metals. Extensive laboratory work in preparation and examination of metallic samples under various microscopes, as well as lectures on technology of metallica works of art. Practical instruction in metallographic microscopy. Exploration of phase and stability diagrams of common alloying systems and environmental techniques appropriate for examination and characterization of metallic artifacts. Concurrently scheduled with course CM233. Letter grading.

140. Materials Selection and Engineering Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced prerequisites: at least two courses from 132, 150, 160. Explicit guidance among historic metals. Extensive laboratory work in preparation, corrosion, and microstructure of ancient and historic metals. Letter grading.

140L. Computer Methods and Instrumentation in Materials Science. (Laboratory, four hours, Preparatory: knowledge of BASIC or C or assembly language. Limited to 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 prerequisites: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under simple and combined loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (Laboratory, four hours. Enforced prerequisites: courses 90L, 143A (may be taken concurrently). Methods of characterizing mechanical 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. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structure crystallinity, and morphology and their effects on physical properties. Glassy polymers, spring polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.

151. Structure and Properties of Composite Materials. (4) Lecture, four hours; outside study, eight hours. Preparation: at least two courses from 132, 143A, 150L, and one course 104. Fundamental distinction between structure and mechanical properties of composite materials with fiber and particulate reinforce. Properties of fiber, matrix, and interfaces. Selection of macrostructures and material systems. Letter grading.

160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced prerequisites: courses 104, 130. Introduction to ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications in engineering. Letter grading.


162. Electronic Ceramics. (4) Lecture; four hours; outside study, eight hours. Enforced prerequisite: course 104, Electrical Engineering 1 (or Physics 1C). Utilization of ceramics in microelectronics; thick film and thin film resistors, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics; ferroelectric ceramics and electro-optic devices; polycrystal and single crystal short-range order in crystals, structural effects of plastic deformation, solid-state transformations, arrangements of atoms in liquids and amorphous solids. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehension of presentation and communication skills provided as building on strengths of individual personal styles in creation of positive interpersonal relations. Skill set prepares students for different types of academic and professional presentations for wide range of audiences. Learning environment is highly supportive and interactive as it helps students creatively develop and greatly expand effectiveness of their communication and presentation skills. Letter grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive technical writing skills on subjects specific to field of materials science and engineering. Students write review term paper in selected subject field of materials science and engineering from given set of journal publications. Instruction leads students through structural and content components including brainstorming, choosing title, coming up with outline, concise writing of abstract, conclusion, and final polishing. REPORTS include writing style, word choices, and grammar. Letter grading.

CM180. Introduction to Biomaterials. (4) (Same as Bioengineering CM178.) Lecture, three hours; discussion, two hours; outside study, seven hours. Enforced prerequisite: course 104, or Chemistry 20A; 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM280. Letter grading.

186. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in materials science and engineering for undergraduate students taught on experimental or temporal basis, such as those taught in mid- and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Occasional field trips may be arranged. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.


C211. Introduction to Materials Characterization B (Electron Microscopy). (4) (Formerly numbered 211.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Enforced prerequisites: courses 104, 110. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projection, direct observation of defects in crystals, replicas; scanning electron microscopy: emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C111. Letter grading.


M216. Science of Conservation Materials and Methods I. (4) (Same as Conservation M216.) Seminar, one hour; laboratory, three hours. Recommended prerequisite: course 104. 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 biomimetic processes and nanomaterials. Letter grading.


222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisites: courses 120, 130, 131. Thermodynamics and kinetics that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteroepitaxy, implantation, oxidation. Letter grading.
223. Materials Science of Thin Films. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 131. Fabrication, 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, and mechanical behavior.

224. Deposition Technologies and Their Applications. (4) Lecture, four hours; outside study, eight hours. Examination of physics behind majority of modern deposition technologies based on vapor phase transport. Basic vacuum technology and gas kinetics. Deposition methods used in high-tech-nology applications. Theory and experimental details of physical, vapor deposition (PVD), chemical vapor deposition (CVD), plasma-enhanced chemical vapor deposition processes. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Science. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requisites: courses 120, 222. Selected topics in materials science from modern Si-CMOS technology, including technological challenges in high k/metal gate stacks, strained Si FETs, SOI and three-dimen-sional FETs, source/drain engineering, silicided, sputtered-enhanced diffusion, nonvolatile memory, and metalization for ohmic contacts. Letter grading.

CM233. Ancient and Historic Metals: Technology, Microstructure, and Corrosion. (4) (Same as Conservation M246.) Lecture, two hours; laboratory, 90 minutes. Designed for graduate conservation and materials science students. Processes of extraction, alloying, surface patination, metallic coatings, corrosion, and conservation of ancient and historic metals. Extensive laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Review of metallurgical microscopy. Exploration of phase and stability diagrams of common alloying systems and environments and analytical techniques appropriate for examination and characterization of metallic artifacts. Concurrently scheduled with course C133. Letter grading.

243A. Fracture of Structural 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 fracture. Fracture mechanics, dislocation models, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143A. Elastic and plastic deformation of crystals, geometry of dislocations, and interaction of dislocations, mechanisms of yielding, work hardening, and other strengthening. Letter grading.


248. Materials and Physics of Solar Cells. (4) Lecture, four hours. Comprehensive introduction to mate-rials science and engineering of solar cells covering basic physics of semiconductors in photovoltaic devices, physical models of cell operation, characteristics and design of common types of solar cells, and appro-aches to improving cell efficiency. Recent progress in solar cells, such as organic solar cell, thin-film solar cells, and multiple junction solar cells pro-voked to increase student knowledge. Tour of re-search laboratory included. Letter grading.


270. Computer Simulations of Materials. (4) Lecture, four hours; outside study, eight hours. Introduc-tion to modern methods of computational modeling in materials science. Topics include basic statistical me-chanical concepts, classical molecular dynamics, and Monte Carlo methods, with emphasis on understanding basic physical ideas and learning to design, run, and analyze computer simulations of materials. Use of ex-amples from current literature to show how these methods can be used to study interesting phenomena in materials science. Hands-on computer experi-ments. Letter grading.


272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended prerequisites: course 200. Introduction to properties and applications of nanoscale materials, with emphasis on understanding of basic principles that distinguish nanostructures (with feature size below 100 nm) from more common microstructured materials. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum me-chanics and statistical thermodynamics. Topics include struc-ture and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on sur-faces and in liquid solutions, mechanical properties of nanocrystalline materials, molecular electronics, spin-based electronics, and proposed realizations of quantum computing. Discussion of current and future directions of this rapidly evolving field, by examples from modern scientific literature. Letter grading.

CM280. Introduction to Biomaterials. (4) (Same as Bioengineering CM278.) Lecture, three hours; discus-sions, two hours; outside study, seven hours. Requi-sites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tis-sues. Topics include relationships between material properties, suitability to task, surface chemistry, pro-cessing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

282. Exploration of Advanced Topics in Materials Science and Engineering. (2 to 10) Tutorial, to be arranged. Limiting the prerequisite for enrolled graduate students in any engineering science and engineering student groups present summary previews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

286. Seminar: Advanced Topics in Materials Sci-ence and Engineering. (2 to 4) Seminar, two hours; out-side study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in re-search specialty of faculty members teaching course. May be repeated for credit. S/U grading.

288. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limiting the prerequisite for enrolled graduate students in any engineering science and engineering student groups present summary previews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

298. Seminar: Advanced Topics in Materials Science and Engineering. (2 to 4) Seminar, to be arranged. Limiting the prerequisite for enrolled graduate students in any engineering science and engineering student groups present summary previews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person-nel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid ance and supervision of regular faculty member re-ponsible for curriculum coordination at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to request enrollment must be submitted to assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.


597B. Preparation for Ph.D. Preliminary Examina-tions. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. S/U grading.


599. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Mathematics

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Geoffrey Mess, Ph.D.

Marcus L. Roper, Ph.D.

Assistant Professor

Lara Dolecek, Ph.D.

Adjunct Associate Professor

Christian Ratsch, Ph.D.

Adjunct Assistant Professors

Mary P. Greene, M.S.

Loong F. Kong, M.S.

Scope and Objectives

Gauss has 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 provides courses of study that introduce students to the fundamentals of mathematics and allow them to master the most important parts of the subject, both pure and applied. It leads doctoral students to the frontiers of mathematical research, where they can begin to push back those frontiers.

Undergraduate Study

Preliminary Examination in Mathematics

If students wish to enroll in Mathematics 1, 3A, or 31A, they must pass the Mathematics Diagnostic Test.

For specific information about the online test, refer to the Schedule of Classes or the departmental website at http://www.math.ucla.edu/ugrad/diagnostic, or contact the Mathematics Student Services Office, 6356 Math Sciences.

Advanced Placement in Calculus

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 5 receive 4 units of credit and Mathematics 31A equivalency; those with a score of 4 receive 4 units of calculus and analytic geometry credit. They may petition for 31A equivalency, or they may take course 31A at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students who take the BC Test and obtain a score of 5 receive 8 units of credit and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of credit and Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A, 31B at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students receiving a score of 4 or lower on the AB or BC exam must do so prior to enrolling in a calculus course at UCLA.

Credit Limitations

Credit is given for at most one course in each of the following groups: (1) 3A, 31A; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 174A, 174E.

Courses from only one of the following statistics sequences may be applied toward any mathematics major: (1) Statistics 100A (or Mathematics 170A), 100B, 100C or (2) former Statistics 110A, 110B.

Mathematics 2 is not open for credit to students with credit for any course from Mathematics 110A through 199.

Mathematics 132 is not open for credit to students with credit for Physics 132.

Mathematics 151A is not open for credit to students with credit for Electrical Engineering 103.

Mathematics 170A and Statistics 100A are not open for credit to students with credit for Electrical Engineering 131A.

Mathematics 174A and 174E are not open for credit to students with credit for Economics 141.

For lower division mathematics courses, students may not take or repeat a course for credit if it is a requisite for a more advanced lower division course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 31B, they must do so before completing course 32B; if students wish to repeat Mathematics 3B or 31B or 32A, they must do so before completing course 33A).

For upper division mathematics courses, students may not take or repeat a lower sequence course for credit if it is part of a sequence for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 31A, they must do so before completing course 31B or 131BH).

Students may not receive credit for both a course and the honors version of that course (e.g., they may not receive credit for both Mathematics 131A and 131AH).
Mathematics 

Upper Division Courses

Mathematics 115A, 131A, 132, 142, 151A, and 164 are offered each term. The remaining upper division courses are usually offered once or twice each year. The tentative class schedule for the forthcoming academic year is posted in the Student Services Office in February.

Program in Computing Courses

Program in Computing 1 is designed for students who wish to begin an introductory level introduction to the topic of computers and computation, but who have no prior experience in computing.

Courses 10A, 10B, and 10C provide an extensive introduction to programming, using the C++ language. Courses 15, 20A, 20B, 20C, 30, 40A, 40B, and 60 are of interest to Letters and Science majors who are completing a specialization in Computing or who are planning to take major course coursework in computer science. These students should seek the advice of their major department.

Undergraduate Majors

The department offers six majors: Mathematics, Applied Mathematics, Financial Actuarial Mathematics, Mathematics of Computation, Mathematics/Applied Science, and Mathematics for Teaching. The department also participates in the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major, and in the Mathematics/Atmospheric and Oceanic Sciences Interdepartmental Program, which offers a Mathematics/Atmospheric and Oceanic Sciences major.

The Mathematics major is designed for students whose basic interest is mathematics; the Applied Mathematics major for those interested in the classical relationship between mathematics, the physical sciences, and engineering; the Financial Actuarial Mathematics major for students interested in working in the actuarial field or the application of mathematics, finance, and statistics; the Mathematics of Computation major for individuals interested in the mathematical theory and the applications of computing; the Mathematics/Applied Science major for those with substantial interest in the applications of mathematics to a particular outside field of interest; and the Mathematics for Teaching major for students planning to teach mathematics at the high school level. As part of the Mathematics/Applied Science major, the department offers programs for students interested in the fields of mathematics/history of science and medical and life sciences.

Each course taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

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.

Mathematics B.S.

Mathematics Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Economics 11, Life Sciences 1, Philosophy 31, 32, Physics 1B, 1C, 6B, 6C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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.

Freshman Students

Students must petition to declare the Mathematics major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students

Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible before admission to UCLA: two years of calculus for majors, one calculus-based physics (mechanics) course, one C++ programming course, and two courses from general chemistry for majors, economics, symbolic logic, and calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admis_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

Required: Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C. 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.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Applied Mathematics B.S.

Applied Mathematics Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Applied Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Applied Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, Program in Computing 10A, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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.

Freshman Students

Students must petition to declare the Applied Mathematics major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students

Transfer applicants to the Applied Mathematics major with 90 or more units must complete
as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, two calculus-based physics courses, one C++ programming course, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

Required: Mathematics 115A, 131A, either 131B or 132, 142; two two-term sequences from two of the following categories: numerical analysis—courses 151A and 151B, probability and statistics—courses 170A and 170B, or Statistics 100A and 100B, differential equations—courses 134 and 135; four courses from 106 through 199 and Statistics 100A through 102C (appropriate courses from other departments may be substituted for some of the additional courses provided departmental consent is given before such courses are taken). 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.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

Financial Actuarial Mathematics B.S.

Financial Actuarial Mathematics Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Financial Actuarial Mathematics premajors until they satisfy the following minimum requirements: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A), the economics preparation course more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Economics 1, 2, 11, Management 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11, Management 1A, 1B) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A). 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.

Freshman Students

Students must petition to declare the Financial Actuarial Mathematics major and can do so once they complete all of the mathematics sequenced courses, all of the economics preparation courses, and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

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 an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C– or better in all premajor economics courses (Economics 1, 2, 11, Management 1A, 1B) with a minimum 2.5 grade-point average and no more than one repeat, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Economics 1, 2, 11, Management 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11, Management 1A, 1B) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A). 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.

Freshman Students

Students must petition to declare the Financial Actuarial Mathematics major and can do so once they complete all of the mathematics sequenced courses, all of the economics preparation courses, and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

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 an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C– or better in all premajor economics courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A), the economics preparation course more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A, 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. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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.

Freshman Students

Students must petition to declare the Mathematics of Computation major and can do so once they complete all of the mathematics sequenced courses and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

Transfer Students

Transfer applicants to the Mathematics of Computation major 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major

**Required:** 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). 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.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

**Mathematics/Applied Science B.S.**

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 Math 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.

**Mathematics/Applied Science Premajor**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics/Applied Science premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Additional preparation, varying with the individual program, may be required. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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.

**Freshman Students**

Students must petition to declare the Mathematics/Applied Science major and can do so once they complete all of the mathematics sequenced courses, all of the economics lower division courses if they are required for the major, and submit an application to enter the major before completing 160 quarter units. Admission into the major is based on student academic performance on the minimum requirements.

**Transfer Students**

Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors and one C++ programming course. Additional courses are required for each concentration plan.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

**The Major**

**Required:** Fourteen courses, seven in the Mathematics Department selected from Mathematics 106 through 199 and seven upper division courses in a related field selected from one or two other departments. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the seven courses outside mathematics.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Economics 1, 2, 11, Program in Computing 10A. 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, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A). 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**

**Required:** Seven mathematics courses, including Mathematics 115A, 131A, 170A, 170B, 172A, 172B, 172C; four outside courses, including Mathematics 174A (or 174E or Economics 141 or Statistics C183B), Statistics 100B, 100C, and one course from Economics 101 through 199B. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the four courses from the Economics and Statistics Department.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

**Mathematics/History of Science Plan**

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three courses from History 2B, 2D, 3A through 3D. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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**

**Required:** Eight mathematics courses, including Mathematics 106, 115A, 131A, 134, 170A,
and three courses from 110A through 199; six outside courses to be selected from History 179A through 180C, Philosophy 124, Physiological Science M168, and any upper division Honors Collegium course with history of science/medicine content. Each course must be taken for a letter grade. The eight Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses from history, philosophy, or physiological science.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

**Medical and Life Sciences Plan**

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, Life Sciences 1, 2, 3, 4, Physics 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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**

**Required:** Seven mathematics courses, including Mathematics 115A, 131A, 134, 151A, 170A, 170B, and one course from 110A through 199 and Statistics 100B through 101C; six outside courses, including Neuroscience M101A, M101B, and M101C, and three courses from Biobiomed 110, 160, Bio-statistics 100A, Chemistry and Biochemistry CM160A, Computer Science CM186, Ecology and Evolutionary Biology C119A, 133, 135, Physiological Science 100, 135, and any additional upper division course from these fields with consent of the administering department and the Mathematics Department. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

**Mathematics for Teaching**

**B.S.**

**Capstone Major**

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.

**Mathematics for Teaching Premajor**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics for Teaching premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, and (3) file a petition to declare the major before completing 160 quarter units.

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 6A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1C, 6B, 6C, Program in Computing 10B through 97. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A, 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.

**Honors**

**Honors Courses**

The department offers a lower division honors sequence in calculus and upper division honors sequences in algebra and analysis. The sequences are intended for students (not necessarily mathematics majors) who desire a broad, comprehensive introduction to these topics.

**Honors Program**

Students majoring in Mathematics, Applied Mathematics, and Mathematics of Computation who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper division mathematics courses with an overall grade-point average of 3.6 or better. The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper division and graduate mathematics courses.

Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper division mathematics courses taken for the major), they are awarded highest honors. Consult the department for further information.

**Computing Specialization**

Majors in Mathematics, Applied Mathematics, Financial Actuarial Mathematics, Mathematics/Applications Science, or Mathematics for Teaching 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,
20A, 20B, 30, 40A, 60, 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.

Subject Matter Preparation Program for Single Subject Credential in Mathematics

Students interested in obtaining a single subject secondary school credential in mathematics should consult with a departmental counselor regarding the requirements for a waiver from the Mathematics California Subject Examination for Teachers (CSET), which is required by the California Commission on Teacher Credentialing. Students should meet with a departmental counselor as early as their undergraduate careers as possible because the program requires additional courses beyond the major requirements. For additional information on teaching credential requirements, consult the Department of Education at (310) 825-8328.

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.

To enter the minor, students must have completed all of the lower division minor courses with grades of C or better (an overall grade-point average of 2.0 or better) and at least one upper division mathematics course.

Required Lower Division Courses (12 units):
Mathematics 32A, 33A, 33B.

Required Upper Division Courses (20 units):
At least five courses (20 units) selected from Mathematics 106 through 199.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Students must complete all lower division courses with grades of C or better. Upper division courses must have an overall grade-point average of 2.0 or better that is calculated separately from the lower division courses. Successful completion of the minor is indicated on the transcript and diploma.

Teaching Secondary Mathematics Minor

The Teaching Secondary Mathematics minor is designed for students majoring in fields other than mathematics who plan to teach secondary mathematics after graduation. The minor provides recognition for completion of requisite coursework for the Joint Mathematics Education Program and also prepares students for the contents on the California Subject Examination for Teachers (CSET). Post-bachelor credentialing programs will see that students with this minor have taken coursework on secondary mathematics from an advanced standpoint that is recommended by the Conference Board of Mathematical Sciences and the California State Commission on Teacher Credentialing. This minor is not open to students in any Mathematics Department major.

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.

Required Upper Division Courses (29 units):
Mathematics 105A, 105B, 105C, 110A or 117, 115A, 120A or 123, 131A.

It is strongly recommended that students take Mathematics 115A as their first upper division course 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 with a grade of C– or better in each, 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Mathematics offers the Masters of Arts in Teaching (M.A.T.) degree and Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Mathematics.

Mathematics

Lower Division Courses


3A. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: three and one-half years of high school mathematics (including trigonometry). Requisite: successful completion of Mathematics Diagnostic Test (score of 36 or better) or course 1 with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Techniques and applications of differential calculus. P/NP or letter grading.

3B. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3A with grade of C– or better. Not open for credit to students with credit for course 31B. Techniques and applications of integral calculus, introduction to differential equations and multivariable differential calculus. P/NP or letter grading.

3C. Probability for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3B with grade of C– or better. Elementary probability, probability distributions, random variables, and limit theorems. P/NP or letter grading.

31A. Differential and Integral Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: at least three and one-half years of high school mathematics (including some coordinate geometry and trigonometry). Requisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.

31AX. Workshop in Differential Calculus. (1) Discussion, one hour. Corequisite: course 31A. Supplementary techniques and applications for solving problems in differential calculus. Limits of investigation set by individual instructor. P/NP 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. Transcendental functions; methods and applications of integration; sequences and series. P/NP or letter grading.

31BH. Integration and Infinite Series (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of B or better. Honors course parallel to course 31B. P/NP or letter grading.

31BX. Workshop in Integral Calculus. (1) Discussion, one hour. Corequisite: course 31B. Supplementary techniques and applications for solving problems in integral calculus. Limits of investigation set by individual instructor. P/NP grading.

31E. Calculus for Economics Students. (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, extreme, optimization, constrained optimization, P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Introduction to differential calculus of several variables, vector field theory. P/NP or letter grading.

32AH-32BH. Calculus of Several Variables (Honors). (4-4) Lecture, three hours; discussion, one hour. Enforced requisite for course 32AH: course 31A with grade of B or better; for 32BH: courses 31B and 32A, with grades of B or better. Honors sequence parallel to courses 32A, 32B. P/NP or letter grading.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 31B and 32A, with grades of C– or better. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.

33A. Linear Algebra and Applications. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3B or 31B or 32A with grade of C– or better. Introduction to linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-
33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Corequisite: course 31B. Supplementary techniques and applications for solving problems in linear algebra. Not open for credit to students with credit for course 33A. P/NP or letter grading.

33BH. Differential Equations. (4) Lecture, three hours; discussion, one hour. Enforced 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.

33BX. Workshop in Infinite Series and Differential Equations. (1) Discussion, one hour. Corequisite: course 33B. Supplementary techniques and applications for solving problems in infinite series and differential equations. Limits of investigation set by individual instructor. P/NP grading.

61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Not open for credit to students with credit for course 180. Discrete structures commonly used in computer science, mathematics, including sets and relations, permutations and combinations, graphs and trees, induction, P/NP or letter grading.

71SL. Classroom Practices in Elementary School Mathematics. (2) Seminar, three hours; fieldwork, three hours; laboratory, two and one-half hours. Requisites: courses 31A and 31B, with grades of C– or better. Introduction to prospective mathematics teachers to field of elementary education and teaching and learning of mathematics in elementary school classrooms. Pairs of students are placed in local elementary schools to observe, participate, and assist mentor teachers in instruction. Introduction to inquiry-based learning practices, national and California standards, reading and learning differences, problem-based instruction, and cognitive ability of elementary-age children as it relates to introduction of concepts, curricular planning, classroom management, and learning assessment. P/NP grading.

72SL. Classroom Practices in Middle School Mathematics. (2) Seminar, 90 minutes; fieldwork, three hours. Requisites: prospective mathematics teachers to field of secondary education and teaching and learning of mathematics 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 secondary school core, cognitive development of students at this level, and best means to teach appropriate mathematics concepts at this level. P/NP grading.

95. Transitions to Upper Division Mathematics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 32A, 32B. Not open for credit to students with credit for course 131A or 132. Introduction to rigorous methods of proof-based upper division mathematics courses. Basic logic; structure of mathematical proofs; sets, functions, and cardinality; natural numbers and induction; construction of real numbers; topology of real numbers; sequences and convergence; continuity. May not be applied toward major requirements. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in mathematics for life sciences majors. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in mathematics for physical sciences and engineering majors. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.
120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, congruence of curves and surfaces, intrinsic geometry of surfaces, differential geometry, Gauss/Bonnet theorem, P/NP or letter grading.

121. Introduction to Topology. (4) Requisite: course 131A. Metric and topological spaces, completeness, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.

123. Foundations of Geometry. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Rigorous introduction to foundations of real analysis; real numbers, point set topology in Euclidean space, functions, continuity. 131B. Requisites: courses 33B, 115A, 151A. 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 131A: 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.

131AX. Analysis Techniques. (1) Lecture, one hour. Requisite: course 33B. Corequisite: course 131A. Review of elementary techniques of mathematics and their applications to topics in analysis, such as geometric and algebraic constructions, least upper bound axiom, etc. P/NP grading.

131C. Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. Advanced topics in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated 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-Riemann equations, Cauchy integral formula, power series expansion, contour integrals, residue calculus.

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.

143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Foundations of Newtonian mechanics, kinematics and dynamics of rigid bodies, variational principles and Lagrange equations; calculus of variations, variational mass; related topics in applied mathematics.

146. Methods of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 131A. Fourier series, Green’s function, and calculus of variations. Selected applications from control theory, optics, dynamical systems, and other engineering problems.

149. Mathematics of Computer Graphics. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A, and Program in Computing 10A or equivalent knowledge of programming in either Pascal or C language. Study of homogeneous coordinate rotations, projective interpolating, and approximating curves, representation of surfaces, and other mathematical topics useful for computer graphics.


157X. Workshop in Software Techniques for Scientific Computation. (1) Discussion, one hour. Corequisite: course 151A or 151B. Work in small groups on problems and applications for solving problems in scientific computing. Limitations of investigation set by individual instructor. P/NP or letter grading.


167. Mathematical Game Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Quantitative modeling of strategic interaction. Topics include extensive form games, rollback, back- ground probability, lotteries, mixed strategies, pure and mixed Nash equilibria and refinements, back- goring; emphasis on economic examples. Optional topics include repeated games and evolutionary game theory. P/NP or letter grading.

Probability

170A. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Introduction to basic probability concepts and counting. P/NP or letter grading.


171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 170A (or Statistics 100A), Discrete Markov chains, continuous-time Markov chains, renewal theory. P/NP or letter grading.

172A. Introduction to Financial Mathematics. (4) Lecture, four hours. Requisites: courses 32B, 33B. Designed to prepare students for Society of Actuaries Financial Mathematics examination. Provides understanding of fundamental concepts of financial mathematics and how these concepts are applied in calculating present and accumulated values from various mathematical models. The focus will be on use in re- serving, valuation, pricing asset/liability management, investment income, capital budgeting, and valuing contingent cash flows. Letter grading.


174A. Financial Economics for Actuarial Students. (4) Lecture, four hours. Requisites: courses 170A and 170B (or Statistics 100A and 100B), 172A. Designed to prepare students for Society of Actuaries Financial Economics examination. Introduction to basic concepts of financial eco-
nomics, including interest rate models, rational valuation of derivative securities, and risk management. Letter grading.


Discrete Mathematics

180. Combinatorics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 32B, 33B, 115A. Permutations and combinations, counting principles, recurrence relations and generating functions, combinatorial designs, graphs and trees, with applications including games of complete information. Combinatorial sequence theorems, Ramsey theory. P/NP or letter grading.

182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A. Not 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.

184. Topics in Combinatorics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 180. Introduction to combinatorics, including several independent topics selected to illustrate various techniques to obtain combinatorial results. Gems of modern combinatorics to be showcased. May be repeated for credit. P/NP or letter grading.

Special Studies

190A-190O. Seminars: Current Literature. (1 each) Seminar, one hour. Designed for undergraduate students. Readings and presentations of papers in mathematical literature under supervision of staff member. One-hour presentation required. P/NP grading.

190A. History and Development of Mathematics. 190C. Algebra.
190D. Logic.
190E. Geometry.
190F. Topology.
190G. Analysis.
190H. Differential Equations.
190I. Functional Analysis.
190J. Applied Mathematics.
190K. Probability.
190L. Dynamical Systems.
190M. Mathematics.
190N. Combinatorics.
190O. Cryptography.

191. Variable Topics Research Seminars: Mathematics. (4) Seminar, three hours. Variable topics research course in mathematics that covers material not covered in regular mathematics upper division curriculum. Reading, discussion, and development of culminating project. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

191H. Honors Research Seminars: Mathematics. (4) Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or 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 project. Individual contract with supervising faculty member required. P/NP 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 required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward upper division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating report required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied and may be toward upper division courses required for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

Graduate Courses

Teacher Preparation

201A-201B-201C. Topics in Algebra and Analysis. (4-4-4) Preparation: bachelor's degree in mathematics. Designed for mathematics/education program students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, point sets, geometric interpretations of algebra and analysis, integration, differentiation, series and analytic functions. May not be applied toward M.A. degree requirements.

202A-202B. Mathematical Models and Applications. (4-4) Preparation: bachelor's degree in mathematics. Designed for mathematics/education program students. Graduate level expositions of mathematical theories and applications described 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. P/NP or letter grading.

207A-207B-207C. Topics in Number Theory. (4-4-4) Lecture, three hours. Adelic analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations, L-functions and Euler products, p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves. S/U or letter grading.


209A. Cryptography. (4) (Same as Computer Science M282A/B/C.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definition and proof of security. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

209B. Cryptographic Protocols. (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 non-black-box zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-ciphertext security; secure multiparty computation; dealing with dynamic adversary; nonlinearity 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 and/or 110B. Students with credit for courses 110B and/or 110C cannot receive M.A. 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 algebras.

211. Structure of Rings. (4) Requisite: course 210A. Radical, irreducible modules and primitive rings, rings and algebras with minimum condition.

212A. Homological Algebra. (4) (Formerly numbered 212.) 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 abelian categories 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.


251B-251C. Topics in Partial Differential Equations. (4-4) In-depth introduction to topics of current interest in partial differential equations or their applications. 252A-252B. Topics in Complex Analysis. (4-4) Lecture, three hours. Prerequisites: courses 245A, 245B, 245C, 246A, 246B. Potential theory, subharmonic functions, harmonic measure; Hardy spaces; univalent functions; Riemann surfaces; extremal length, variational methods, quasiconformal mappings. Topics vary from year to year. S/U or letter grading.

253A-253B. Several Complex Variables. (4-4) Prerequisites: courses 245A, 245B, 245C, 246A, 246B. Introduction to analytic functions of several complex variables. The d-bar problem, Cousin problems, domains of holomorphy, complex manifolds.

254A-254B. Topics in Real Analysis. (4-4) Prerequisites: courses 245A, 245B, 245C, 264A, 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


255B-255C. Topics in Functional Analysis. (4-4) Prerequisite: course 255A. Topics include Banach algebras, operators on Banach spaces and Hilbert space, semigroups of operators, linear topological vector spaces, and Banach algebras.

256A-256B. Topological Groups and Their Representations. (4-4) Lecture, three hours. Prerequisite: course 255A. Topological groups and their basic properties. Haar measure. Compact groups and their representations. Fourier analysis on locally compact abelian groups. Induced representations, Frobenius reciprocity. Representations of special groups (Lorentz, Galilean, etc.). Projective representations. Representations of totally disconnected groups. S/U or letter grading.

Applied Mathematics

260. Introduction to Applied Mathematics. (4) Prerequisite: course 142. Construction, analysis, and interpretation of simplified mathematical models of problems which arise outside of mathematics.


264. Applied Complex Analysis. (4) Prerequisite: course 246A. Topics include contour integration conformal mapping, differential equations in complex plane, special functions, asymptotic series, Fourier and Laplace transforms, singular integral equations.

265A-265B. Real Analysis for Applications. (4-4) Prerequisites: courses 131A, 131B. Not open to credit with 245A, 245B, 245C. Lebesgue measure and integration on real line, absolutely continuous functions, functions of bounded variation, absolute continuity, differentiation of the integral, generalized Lebesgue measure and integrations, Fubini and Radon-Nikodym theorems, representation of functionals, Fourier integrals.


266B-266C. Applied Partial Differential Equations. (4-4) Prerequisite: course 266A. Classification of equations, classical potential theory, Dirichlet and Neumann problems, Green's functions, spectral theory of Laplace equation in bounded domains, first-order equations, wave equations, Cauchy problem, energy conservation, heat equation, fundamental solution, equations of fluid mechanics and magnetohydrodynamics.

M268A. Functional Analysis for Applied Mathematics and Engineering. (4) (Same as Electrical Engineering M208B.) Lecture, four hours. Prerequisites: courses 115A and 115B (or Electrical Engineering M268A). Topics include vector spaces, linear operators, and their adjoints; self-adjoint and compact operators. Spectral theory. Differential operators such as Laplacian and eigenvalue problems. Resolvent distributions and Green's functions. Advanced topics include dissipative systems, with multiple time scales, and applications to fluid mechanics.


268C. Topics in Applied Functional Analysis. (4) Prerequisite: course 255A. Topics include spectral theory with applications to ordinary differential operators, eigenvalue problems, generalized functions, and partial differential equations. S/U or letter grading.


270A. Techniques of Scientific Computing. (4) Lecture, three hours. Prerequisites: courses 115A, 151A, 151B, Program in Computing 10A. Mathematical modeling for computer applications, scientific programming languages, software development, graphics, implementation of numerical algorithms on different architectures, case studies. S/U or letter grading.


271A. Tensor Analysis. (4) Prerequisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Curvilinear coordinates and coordinate-free methods. Covariant differentiation. Green/Stokes theorem for differential forms. Applications to topics such as continuum and particle mechanics.


272B. Mathematical Aspects of Fluid Mechanics. (4) Lecture, three hours. Prerequisite: course 272A. Review of basic theory of moving continua, fluid equations, integral theorems. Simple solutions, flow created by slowly moving bodies, flows where viscosity is negligible, vortices, boundary layers, separation, wave motion, ship waves, compressional waves, shock waves, turbulence theory (overview).


275A-275N. Seminars. (4 each) Seminar, one hour. View, with emphasis on historical context and applications in Computing or to students with credit for course 1; may not be taken concurrently with course 1. May be repeated for credit. S/U or letter grading.

285A-285N. Seminars. (4 each) Seminar, three hours. No open for credit to students with credit for course 10A; may not be taken concurrently with course 1. Introduction to Lisp and Symbolic Computation. Enforced requisite: course 10B.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, one hour. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching College Mathematics. (2) Seminar, one hour; two-day intensive training at beginning of Fall Quarter. Required of all new teaching assistants and new Ph.D. students. Special course for teaching assistants designed to deal with problems and techniques of teaching college mathematics. S/U grading.

495B. Technology and Teaching. (2 to 4) Seminar, two hours; laboratory, one hour (when scheduled). Requisite: course 495. Focus on undergraduate mathematics instruction. Web-based electronic communication, using technology for class organization, use of presentation software packages, and creation of electronic teaching portfolio. Provides mechanisms of technology seminar and forum for evaluation and comparison of technology in undergraduate mathematics teaching. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA department chair and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Supervised individual reading and study on project approved by a faculty member, which may be preparation for M.A. examination. May be repeated for credit. Two 596 courses (8 units) may be applied toward M.A. degree unless departmental consent is obtained. S/U or letter grading.


Program in Computing

Lower Division Courses

1. Introduction to Computers and Computing. (4) Lecture, three hours; laboratory, one hour. Not open for credit to students with credit for course 15 or 10A; may not be taken concurrently with course 15 or 10A.

1S. Tools for Information Management. (1) Lecture, one hour; laboratory, two hours. Preparation: some familiarity with computers. Not open for credit to students with credit for course 1; may not be taken concurrently with course 1. May be taken by students with credit for more advanced courses. Introduction to spreadsheets and databases in laboratory setting. P/NP grading.

3. Introduction to Computing for Social Sciences and Humanities. (4) Lecture, three hours; discussion, two hours. No prior programming knowledge required. Not open for credit to students pursuing specializations in Computing or to students with credit for course 20A. Basic principles of object-oriented programming and concepts, with applications from social sciences and humanities. Overview of Java programming language, programming with objects, control structures and functions, classes and object-oriented design, event-driven programming, application to multigame models. P/NP or letter grading.

10A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Recommended requisite for students with no prior computing experience: course 1. No prior programming experience assumed. Basic principles of programming, using C++; algorithmic, procedural, and 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. Enforced requisite: course 10A. Abstract data types and their implementation using C++ class mechanisms; dynamic data structures, including linked lists, stacks, queues, trees, and hash tables; applications; event-oriented programming and software reuse; recursion; algorithms for sorting and searching. P/NP or letter grading.

10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. More advanced algorithms and data structures techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

15. Introduction to Lisp and Symbolic Computation. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10A. Introduction to symbolic computation using Lisp programming language. Basics: list structures, recursion, function abstraction. Advanced topics: knowl-
edge representation, higher-order functions, problem-solving algorithms and heuristics. P/NP or letter grading.

20A. Principles of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Not open for credit to students with credit for course 20B. Introduction to Java computer language. Class and interface hierarchies; graphics components and graphical user interfaces; streams; multithreading; event and exception handling. Issues in class design and design of interactive Web pages. P/NP or letter grading.

20B. Advanced Aspects of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 20A. Further aspects of use of classes, graphics components, exception handling, multithreading, and multimedia. Additional topics may include networking, servlets, database connectivity, and JavaBeans. P/NP or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laboratory, five hours. Enforced prerequisite: course 20B. Overview of Enterprise Java APIs: remote method invocation, database access with SQL, servlets, and JSP. Issues in implementation of server-side Java applications. Use of Java in conjunction with XML, Individual or group projects and presentations. P/NP or letter grading.

30. Machine Organization and Assembly Language Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10B. Description of machine organization and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing, and interrupts. P/NP or letter grading.

40A. Introduction to Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Recommended: course 10B. Introduction to core technologies of Internet, with focus on client-side Web programming. Fundamental protocols, static Web pages, Perl language, Common Gateway Interface, XML, P/NP or letter grading.

40B. Advanced Topics in Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite: course 10A. Study of advanced topics in Web programming, with focus on server-side technologies. P/NP or letter grading.


97. Special Topics in Programming. (1 to 4) Lecture, one to three hours; discussion, zero to one hour. Enforced prerequisite: course 10A. Variable topics in programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

Upper Division Courses

110. Parallel and Distributed Computing. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced prerequisite. Course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming of parallel computers. Shared and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics. P/NP or letter grading.

130. Cryptography. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Enforced prerequisite: course 10B, Mathematics 115A. Design and analysis of cryptosystems for confidentiality and authentica-

tion. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factoring integers, discrete log-
arithms, digital signatures, perfect secrecy. P/NP or letter grading.

187. Advanced Variable Topics in Programming. (4) Lecture, three hours; discussion, one hour. Variable topics in programming and mathematics of programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Courses

285C-285L. Seminars. (4 each) Seminar, three hours. Considered equivalent to Mathematics 285A through 285L for purposes of degree requirements. Topics in various computational fields by means of lectures and informal conferences with staff members. S/U or letter grading.

285C. Computational Algebra.

285D. Logic and Theory of Computation.


285K. Randomness and Computation.

285L. Computational Statistics.


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.

Mathematics/Atmospheric and Oceanic Sciences

Interdepartmental Program

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Robert G. Fowell, Ph.D., Chair

Faculty Committee

Christopher R. Anderson, Ph.D. (Mathematics)

Robert G. Fowell, Ph.D. (Atmospheric and Oceanic Sciences)

J. David Neelin, Ph.D. (Atmospheric and Oceanic Sciences)

Peter Peterson, Ph.D. (Mathematics)

Scope and Objectives

The Mathematics/Atmospheric and Oceanic Sciences B.S. degree program is designed for students who have an interest in and talent for both subjects. Students completing the major are well-qualified for graduate study in the most demanding graduate programs in atmospheric sciences, oceanic sciences, or applied mathematics. Postgraduate training leads to employment at a professional level in academia, government, or private enterprise. Opportunities outside academia include environmental agencies, consulting companies, and governmental agencies such as NASA, National Oceanic and Atmospheric Administration (NOAA), National Center for Atmospheric Research (NCAR), Department of Energy (DOE), and the military, the Air Force and Navy in particular.

Graduates of the program are employed by private and public weather products firms, consulting companies, public utilities, and as science teachers at the elementary and secondary levels.

Undergraduate Study

The Mathematics/Atmospheric and Oceanic Sciences 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.

Mathematics/Atmospheric and Oceanic Sciences B.S.

Capstone Major

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C. Program in Computing 10A, and two courses selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5. Physics 4AL and 4BL are recommended but not required. Chemistry and Biochemistry 14A and 14B (or 20A and 20B) may also be required, depending on atmospheric and oceanic sciences upper division course selection. Each course must be taken for a letter grade and must have passed with a grade of C- or better, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students

Transfer applicants to the Mathematics/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: two years of calculus for majors, physics courses equivalent to Physics 1A, 1B, and 1C, and one C++ programming course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six
Mathematics/Economics
Interdepartmental Program
College of Letters and Science

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Don M. Blasius, Ph.D., Chair
Faculty Committee
Don M. Blasius, Ph.D. (Mathematics)
Robert F. Brown, Ph. D. (Mathematics)
Russel E. Caflisch, Ph.D. (Management, Materials Science and Engineering, Mathematics)
Peter Petersen, Ph.D. (Mathematics)
Marek G. Pycia, Ph.D. (Economics)
John G. Riley, Ph.D. (Economics)

Scope and Objectives
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.

The Mathematics/Economics B.S. 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.

Undergraduate Study
Mathematics/Economics B.S.

Mathematics/Economics Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to file a petition with the Undergraduate Advising Office in 6356 Math Sciences. All students are identified as Mathematics/Economics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C or better in all premajor economics courses (Economics 1, 2, 11) with a minimum 2.5 grade-point average and no more than one repeat, and (3) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course. 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, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). 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. 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.

Transfer Students
Transfer applicants to the Mathematics/Economics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one introduction to discrete structures course, one microeconomic theory course, one macroeconomics course, and one C++ programming course.

Transfer credit for any of the above is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Six mathematics courses, including Mathematics 115A, 131A, 170A, 170B, and two courses from Mathematics 131B, 164, 174E (or 174A or Economics 141 or Statistics C183); six economics courses, including Economics 101, 102, 103, 103L, and two additional courses from 106E through 199B. Each course must be taken for a letter grade. Transfer credit is subject to departmental approval; consult an undergraduate counselor before enrolling in any courses for the major.

To graduate, the six 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.

It is strongly recommended that students take Mathematics 115A as one of their first upper division courses for the major.

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 and meeting the following requirements: (1) be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5 grade-point average in Economics 11, 101, and 102.

To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 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. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Computing Specialization
Students may select a specialization in Computing 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, 20A, 20B, 30, 40A, 60, 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.

**MECHANICAL AND AEROSPACE ENGINEERING**

Henry Samueli School of Engineering and Applied Science

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**Scope and Objectives**

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 dynamics, fluid mechanics, heat and mass transfer, manufacturing and design, nanoelectromechanical and microelectromechanical systems, structural and solid mechanics, and systems and control. 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.

At the undergraduate level, the department offers accredited programs leading to B.S. degrees in Aerospace Engineering and in Mechanical Engineering. At the graduate level, the department offers programs leading to M.S. and Ph.D. degrees in Mechanical Engineering and in Aerospace Engineering. An M.S. in Manufacturing Engineering is also offered.

**Undergraduate Study**

The aerospace engineering and mechanical engineering programs are accredited by the Engineering Accreditation Commission of ABET. See http://www.abet.org.

The Aerospace Engineering and Mechanical Engineering majors are designated capstone majors. 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. Mechanical Engineering students work in teams in their capstone courses to propose, design, analyze, and build a mechanical or electromechanical device. Graduates of both programs 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.

**Aerospace Engineering B.S. Capstone Major**

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.

**Preparation for the Major**

**Required:** Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Mechanical and Aerospace Engineering M20 or Computer Science 31; Physics 1A, 1B, 1C, 4AL, 4BL.

**The Major**

**Required:** Mechanical and Aerospace Engineering 101, 102, 103, 105A, 107, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150R or 161A, 154S, 157A, 157S, 166A, 171A, 182A; two departmental breadth courses (Electrical 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); three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Mechanical and Aerospace Engineering 154A, 154B); and two major field elective courses (8 units) from Mechanical and Aerospace Engineering 105D, 131A, C132A, 133A, 135, 136, C137, CM140, 150C, 150G, 150R (unless taken as a required course). 153A, 155, 161A (unless taken as a required course), 161B, 161C, 161D, 162A, 166C, M165, 169A, 171B, 172, 174, C175A, CM180, 181A, 182B, 182C, 183, 184, 185, 186, C187L.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

**Mechanical Engineering B.S. Capstone Major**

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.

Preparation for the Major

**Required:** Mechanical Engineering 101, 102, 103, 105A, 105D, 107, 131A or 133A, 156A, 157, 162A, 171A, 182A, 183; two departmental breadth courses (Electrical Engineering 100 and Materials Science and Engineering 104)—if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper division course or courses from the department—except for Mechanical and Aerospace Engineering 166A—or, by petition, from outside the department; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Mechanical and Aerospace Engineering 162D, 162E); and two major field elective courses (8 units) from Mechanical and Aerospace Engineering 131A (unless taken as a required course), C132A, 133A (unless taken as a required course), 135, 136, C137, CM140, 150A, 150B, 150C, C150G, C150P, C150R, 153A, 154S, 155, 157A, 161A, 161B, 161D, 166C, M168, 169A, 171B, 172, 174, C175A, CM180, 181A, 182B, 182C, 184, 185, C186, C187L.

For information on University and general education requirements, see the College and Schools section earlier in this catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Mechanical and Aerospace Engineering offers the Master of Science (M.S.) degree in Manufacturing Engineering, Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Aerospace Engineering, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Mechanical Engineering.

Mechanical and Aerospace Engineering

**Lower Division Courses**


94. Introduction to Computer-Aided Design and Drafting. (4) Lecture, two hours; laboratory, four hours. Fundamentals of computer graphics and three-dimensional modeling on computer-aided design and drafting systems. Students use one or more online computer systems to design and display various objects. Letter grading.

Upper Division Courses


102. Dynamics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 101 (enforced), Mathematics 33A, Physics 1A. Fundamental concepts of Newtonian mechanics. Kinematics and kinetics of particles and rigid bodies in two and three dimensions. Impulse-momentum and work-energy relationships. Applications. Letter grading.

103. Elementary Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Introductory course dealing with application of principles of mechanics to flow of compressible and incompressible fluids. Letter grading.

105A. Introduction to Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20A, Mathematics 33B. Review of engineering applications of the principles of thermodynamics, properties of matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffusion and multiplication, heat transfer, and nuclear science for medical uses. Letter grading.

133A. Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 105A. Applications of thermodynamic principles to engineering processes. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow systems. Letter grading.

135. Fundamentals of Nuclear Science and Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20A, Mathematics 33B. Review of nuclear physics, radioactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass defect, chain reactions, criticality, neutron diffusion and multiplication, heat transfer systems, 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.

136. Energy and Environment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 105A. Global energy use and supply, electrical power generation, fossil fuel and nuclear power plants, renewable energy such as hydro-power, biomass, geothermal, solar, wind, and ocean, fuel cells, transportation, energy conservation, air and water pollution, global warming. Letter grading.

C137. 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 intermittency and correction; electricity pricing; grid stability; energy storage and electric vehicles-simulation; monitoring; distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wireless, wired, and optical communications for smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phasor measure-
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ments; analytical methods and tools for monitoring and control. Concurrently scheduled with course C237. Letter grading.

CM140L. Introduction to Biomechanics. (4)Same as Bioengineering CM140L. Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 101, 102, and 156A or 166A. Introduction to biomechanics, design fundamentals, and the dynamic behavior of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics, Fluid mechanics applications. Heat and mass transfer. Power generation and control. Presentations in both oral and written formats. Letter grading.


150G. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: course 103A. Mechanics of fluids. Enforced requisites: courses 103, 105A. 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.

150P. Aircraft Propulsion Systems. (4) Formerly numbered 150P. Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 105A, 150A, 150C. Analysis of gas-turbine engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C250P. Letter grading.

150R. Rocket Propulsion Systems. (4) Formerly numbered 150R. 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 C250R. Letter grading.

153A. Engineering Acoustics. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Design of junior/senior engineering majors. Fundamental concepts in acoustic sciences; propagation of sound; sources of sound. Design of field measurements. Estimation of jet and blade noise with design aspects. Letter grading.

154A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 154S. Classical preliminary design of aircraft, including weight estimation, performance and stability, and control configuration. 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, two hours; outside study, six hours. Seven hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design. Concepts of aircraft's flexibility on stability derivatives. Letter grading.

155. Intermediate Dynamics. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 102. Axions of Newtonian mechanics, generalized coordinates, Lagrange equation, variational principles; central force motion; kinematics and dynamics of rigid bodies. Euler equations, motion of rotating bodies, oscillatory motion, normal coordinates, orthogonality relations. Letter grading.

156A. Advanced Strength of Materials. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 101, 182A. Not open to students with credit for course 166A. Conception of strength of material. Stress analysis in loaded beams with symmetric and asymmetric cross sections. Torsion of cylinders and thin-walled structures, shear flow. Stresses in pressure vessels, pressure and shrink-fit problems, rotating shafts. Curved beams. Contact stresses. Stress and failure, plastic deformation, fatigue, elastic instability. Letter grading.


157. Basic Mechanical Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Enforced requisites: courses 101, 102, 103, 105A, 105D, Electrical Engineering 100. Methods of measurement of basic quantities and performance of basic experiments in heat transfer, fluid mechanics, structures, and thermodynamics. Design of experiments, recording equipment, signal processing, and data analysis. Letter grading.

157A. Fluid Mechanics and Aerodynamics Laboratory. (4) Laboratory, eight hours; outside study, four hours. Enforced requisites: courses 157 or 157S. Letter grading.

157S. Experimental illustration of important physical phenomena in area of fluid mechanics/aerodynamics, as well as hands-on experience with design of experimental programs and use of modern experimental tools and techniques in field. Letter grading.

157S. Basic Aerospace Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Enforced requisites: courses 101, 102, 103, 105A, 105D, Electrical Engineering 100. Recommended: course 15. Measurements of basic physical quantities in fluid mechanics, thermodynamics, and structures. Opera- tion of primary transducers, computer-aided data ac- quisition, signal processing, and data analysis. Performance of experiments to enhance understanding of basic physical principles and characteristics of structures/systems of relevance to aerospace engineering. Letter grading.

161A. Introduction to Aeronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced course 182A. Introduction to two-dimensional elasticity, stress-strain laws, yield and fatigue; bending of beams; torsion of beams; warping; torsion of thin-walled cross sections; shear flow; shear lag; combined bending and thin-walled, stiffened structures used in aerospace vehicles; elements of plate theory, buckling of columns. Letter grading.

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. Students work in groups of three or four, with each student responsible primarily for one subsystem and for integration with whole. Letter grading.

161D. Space Technology Hardware Design. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite: course 161B. Design by students of hardware with applications to space technology. Designs are then built by HSSEAS professional machine shop and tested by students. Letter grading.


162D. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 94, 131A or 133A, 156A (or 183A), 162A (or 171A). Limited to seniors. First of two mechanical engineering capstone design courses. Lectures on engineering project management, design of thermal systems, mechatronics, mechanical systems, and mechanical components. Students work in teams to begin their two-term design project. Laboratory modules include CAD design, CAD analysis, mechatronics, and conceptual design for team project. Letter grading.

162E. Mechanical Engineering Design II. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 162D. Limited to seniors. Second of two mechanical engineering capstone design courses. Students group together to draft the final design and analysis projects. Students enter project in final design competition. Preparation of design presentations in both oral and written formats. Letter grading.

166A. Analysis of Flight Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 182A. Not open to students with credit for course 166A. Of structures of interest to two-dimensional elasticity, stress-strain laws, yield and fatigue; bending of beams; torsion of beams; warping; torsion of thin-walled cross sections; shear flows; shear lag; combined bending and thin-walled, stiffened structures used in aerospace vehicles; elements of plate theory, buckling of columns. Letter grading.

166C. Design of Composite Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 156A or 166A. History of composites, stress-strain relations for composite materials, bending and extension of symmetric laminates, failure analysis, design examples and de-
sign studies, buckling of composite components, nonisometric laminates, micromechanics of composites. Letter grading.

M168. Introduction to Finite Element Methods. (4) (Same as Civil Engineering M135C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 156A or 168A or Civil Engineering 171A. Lecture: basic concepts of finite element methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz methods; shape functions; convergence 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.


171A. Introduction to Feedback and Control Systems: Dynamic Systems Control I. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 107, 182A. Introduction to feedback principles, control systems design, and system stability. Modeling of physical systems in engineering and other fields; transfer functions; controller design using Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.


172. Control System Design Laboratory. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisite: course 171A. Introduc- tion to loop shaping controller design with application to laboratory electromechanical systems. Power spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complementary sensitivity function imposed by nonminimum phase plants. Lecture topics supported by weekly hands-on laboratory work. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requi- site: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, failure of components; reliability, redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and attributes, acceptance sampling plans; basic concepts of quality improvement. Letter grading.

C175A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 107, 182A. Probability spaces, random variables, stochastic processes, basic tests, conditional probability, Gaussian Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.

CM180. Introduction to Micromachining and Microelectromechanical Systems (MEMS). (4) (Same as Bioengineering CM130 and Electrical Engineering CM150L.) Lecture, four hours; outside study, seven hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Introduction to micromachining technology and microelectromechnical systems (MEMS). Methods of micromachining and how these methods can be used to pro- duce variety of MEMS, including microstructures, microsensors, and microactuators. Students go through process of fabricating MEMS device. Concurrently scheduled with course CM280A. Letter grading.

CM180L. Introduction to Micromachining and Microelectromechanical Systems (MEMS) Laboratory. (1) (Same as Bioengineering CM150L and Electrical Engineering CM150L.) Lecture, one hour; labora- tory, four hours; outside study, one hour. Requisites: course CM180, Chemistry 20A, Physics 1A, 1B, 1C, 4AL, 4BL. Hands-on introduction to micromachining technologies and microelectromechanical systems (MEMS) laboratory. Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students go through process of fabricating MEMS device. Letter grading.

181A. Complex Analysis and Integral Transforms. (4) Lecture, four hours; outside study, eight hours. En- forced requisite: course 182A. Complex variables, an- alytic functions, conformal mapping, contour inte- grals, singularities, residues, Cauchy integrals; La- place transform: properties, convolution, inversion; Fourier transform: properties, convolution, FFT, appli- cations in dynamics, vibrations, structures, and heat conduction. Letter grading.


184. Introduction to Geometry Modeling. (4) Lecture, four hours; laboratory; four hours; outside study, six hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), 94. Fun- damentals in parametric curve and surface modeling, parametric spaces, blending functions, conics, splines and Bezier curve, coordinate transformations, affine and projective geometry, analytical properties of surface and curve, hands-on experience with CAD/CAM systems design and implementation. Letter grading.

190. Introduction to Radio Frequency Identifica- tion and Its Application in Manufacturing and Sup- ply Chain. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 156A or Civil Engineering 171A. Introduction to radio frequency identification (RFID) chips installed on com- ponents, subassemblies, and assemblies of products allow them to be tracked automatically as they move through manufacturing supply chain. RFID tags 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 related to these techniques, top- down and bottom-up (self-assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and electronic techniques that are encour- aged to create their own ideas in self-designed exper- iments. Concurrently scheduled with course C286L. Letter grading.

188. Special Courses in Mechanical and Aero- space Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Special topics in mechanical and aerospace engineering for undergraduate students taught on experimental or theoretical basis, such as for resident and visiting faculty members. May be repeated once for credit with instructor's change. P/NP or letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 4) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. Student presentation of proj- ects under research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aero- space Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors; individual re- search or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Of- fice of Academic and Student Affairs. Letter grading.
Graduate Courses


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.


231G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Heat carriers (photons, electrons, phonons, molecules) and their energy characteristics, statistical properties of heat carriers, scattering and propagation of heat carriers, Boltzmann transport equations, derivation of classical laws from Boltzmann transport equation. Derivation from classical laws at small scale. Letter grading.


235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 182A. Underlying physics and mathematics of nuclear reactor theory. Diffusion theory, reactor kinetics, slowing down and thermalization, multigroup methods, introduction to transport theory. Letter grading.

237. 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 intermittency and correlation; microgrids; grid stability; energy storage and electric vehicles–vehicle; monitoring; distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wireless, wireline, and powerline communications for smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phase measurements; analytical methods and tools for monitoring and control. Concurrently scheduled with course C137. 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. Advanced and current study of one or more aspects of heat and mass transfer, such as reactor safety, risk–benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

239F. Special Topics in Transport Phenomena. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study in 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.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current study of one or more aspects of heat and mass transfer, such as reactor safety, risk–benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

240. Introduction to Biomechanics. (4) (Same as Bioengineering C240C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced 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 fluid mechanics applications. Letter grading. Laboratory simulations and tests. Concurrency scheduled with course CM140. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Corequisite: course 182B. Development and application of fundamental principles of fluid mechanics at graduate level, with emphasis on incompressible flow. Fluid kinematics, basic equations, constitutive relations, exact solutions on the Navier–Stokes equations, vorticity dynamics, decomposition of flow. Letter grading.

250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fundamental principles of fluid dynamics applied to study of fluid resistance. States of fluid flow discussed in the context of 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 inviscid flows. Steady and unsteady inviscid subsonic 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. Requisites: courses 182A, 182B, 182C, 250A, 250B. Introduction to basic concepts and techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solving unsteady three-dimensional 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. Requisite: recommended 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 for nonequilibrium real gases, and computational fluid dynamics methods for nonequilibrium hypersonic flows. Letter grading.

2520G. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G. Letter grading.


2520P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 105A. Introduction to fundamentals of microengines, and propulsion concepts; mechanical 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 C150P. Letter grading.

2520Q. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 105A. Rocket propulsion concepts; mechanical 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 C150P. 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 and lead to turbulence of secondary motions. Linear stability theory; thermal, centrifugal, and shear instabilities; boundary layer instability, Nonlinear aspects; sufficient criteria for stability, subcritical instabilities, supercritical states, transition to turbulence. Letter grading.

252B. Turbulence. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B. Introduction to turbulence phenomena, jet and boundary layer, wakes, turbulent shear flows, transport equations, statistical description of turbulent flows, scales of turbulent motion, simple turbulent flows, free-shear flows, wall-bounded flows, turbulence modeling, numerical simulations of turbulent flows, and turbulence control. Letter grading.

252C. Fluid Mechanics of Combustion Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Recommended: course 250C. Review of fluid mechanics and chemical thermodynamics applied to reactive systems,

252D. Analytical Fracture Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 252C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and averaging, lab into potentials, space trajectory calculations, statistical reaction rate theorems. Practical examples of large-scale chain mechanisms from combustion chemistry of several elements, etc. Letter grading.

252P. Plasma and Ionized Gases. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 150A, 182A, 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.

254A. Special Topics in Aerodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B, 182A, 182B. Special topics of current interest in advanced aerodynamics. Examples include transonic flow, hypersonic flow, sonic booms, and unsteady aerodynamics. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 169A. Variational principles and Lagrange equations. Kinematics and dynamics of rigid bodies; procession and rotation 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 non-linear direct methods; Hamiltonian 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 M230A.) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Linear elastostatics, Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks, and free surfaces. Solutions of Kelvin problems, Hertzian and Lame problems, and close contact. Introduction to boundary integral equation method. Letter grading.

256B. Nonlinear Elasticity. (4) Same as Civil Engineering M230B. Lecture, four hours; outside study, eight hours. Requisite: course M256A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoplasticity; linearization of field equations; solution of selected problems. Letter grading.


256F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Recent developments in fracture mechanics, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stiffened structures, pressure vessels, plates, and shells. Letter grading.


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 of microscopic through nanoscale or structural and transitional and up to continuous. Discussion of atomistic simulation methods (e.g., molecular dynamics, Langevin dynamics, and kinetic Monte Carlo) and their application to solid mechanics. Development and application of dislocation dynamics and statistical methods for mechanics in materials of nanoscale and microstructure self-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, nanoparticles, quantum dots, nanotubes, nanoclusters, thin films (e.g., optical thermal barrier coatings and ultrathin nanolayer materials), nano-identification, smart (active) materials, nano- bending and microbending, and torsion. Letter grading.

259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation involving assignments in research problems leading to term paper or oral presentation (possible help from guest lectures). Letter grading.

259B. Seminar: Advanced Topics in Solid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced study in various fields of solid mechanics on topics which may vary from term to term. Topics include 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.


262. Mechanics of Intelligent Material Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 166C. Constitutive relations for electro-magneto-mechanical materials. Fiber-composite and sensor/macro analysis, including classical lamination theory, shear lag theory, concentrict cylinder analysis, hexagonal models, and homogenization techniques as they apply to active materials. Active systems design, inch-worm, and biomorph. Letter grading.

263A. Advanced Theoretical Foundations of Motion Controlers. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: courses 163A, 294. Theory of motion control for modern computer-controlled machines; multiaxis computer controlled machines; machine kinematics and dynamics; multiaxis motion coordination; coordinated motion with desired speed and acceleration; jerk analysis; motion control generation; trajectory and path generation; velocity and acceleration limiters; multi-axial controller input; motion trajectory design and analysis; geometry-speed-fixing time relationships. Letter grading.

265B. Spacecraft Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 256A. Recommended: course 255B. Modeling, dynamics, and stability of spacecraft; spinning and dual-spin spacecraft dynamics; spinup through resonance, spinning rotor dynamics; environmental torques in space, modeling and model reduction of flexible space structures. Letter grading.


263D. Advanced Robotics. (4) Lecture, four hours; outside study, eight hours. Recommended preparations: courses 155, 171A, 263C. Motion planning and control of articulated dynamic systems: nonlinear joint control, experiments in joint control and multiaxis control, motion control, optimization, computer numerical control and manipulator design, kinematic redundancies, motion planning of manipulators in space, obstacle avoidance. Letter grading.


272A. Aeroelastic Effects in Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M269A. Presentation of field of aeroelasticity from unified viewpoint applicable to flight structures, suspension bridges, buildings, and other structures. Derivation of aeroelastic operators and unsteady loads from governing variational principles. Flow induced instability and response of structural systems. Letter grading.

M270A. Linear Dynamic Systems. (4) Same as Chemical Engineering M280A and Electrical Engineering M240A.) Lecture, four hours; outside study, eight hours. Requisite: course 171A or Electrical Engineering 141. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Gram-Schmidt orthonormalization, solution of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connection to connections and linear quadratic (LQ) optimal control problems for continuous-time and dis-
cette-course, time finite, and finite-infinite time prob-
lems; Hamiltonian systems and optimal control; alge-
braic and differential Riccati equations; implications of
to control of dynamic system modelled by linear ordi-

C271A. Probability and Stochastic Processes in
Dynamical Systems. (4) (Formerly numbered 271A.)
Lecture, four hours; outside study, eight hours. En-
forced requisite: courses 107, 182A. Probability
spaces, random variables, stochastic sequences and
processes, expectation, conditional expectation,
Gaussian/Markov sequences, and minimum variance es-
timator (Kalman filter) with applications. Concurrently
scheduled with course C175A. Letter grading.

271B. Stochastic Estimation. (4) Lecture, four hours;
outside study, eight hours. Enforced requisite: course
C271A. Linear and nonlinear estimation theory; or-
thogonal projection lemma, Bayesian filtering theory,
temporal condition and risk estimators. Letter grading.

271C. Stochastic Optimal Control. (4) Lecture, four
hours; outside study, eight hours. Requisite: course
C271B. Stochastic control theory: Pontryagin’s equi-
valence principle, separation theorem, information
statistics; linear-quadratic-Gaussian problem,
linear-exponential-Gaussian problem. Relationship
between stochastic control and robust control. Letter
grading.

271D. Seminar: Special Topics in Dynamic Sys-
tems Control. (4) Seminar, four hours; outside study;
seminar on current research topics in dy-
namical systems control, and applications. Topics
selected from process control, differential
games, nonlinear estimation, adaptive filtering, indus-
trial and aerospace applications, etc. Letter grading.

M272A. Nonlinear Dynamic Systems. (4) (Same as
Chemical Engineering M262A and Electrical Engi-
neering M242A.) Lecture, four hours; outside study,
eight hours. Requisite: course M270A or Chemical
Engineering M260A or Electrical Engineering M240A.
State-space techniques for studying solutions of
time-invariant and time-varying nonlinear dynamic
systems with emphasis on stability. Lyapunov theory
(including converse theorems), invariance, center manifold
theory, stability and gain theorem. Letter grading.

273A. Robust Control System Analysis and De-
sign. (4) Lecture, four hours; outside study, eight
hours. Requisite: course C272A, M270A. Gradu-
ate level introduction to analysis and design of multi-
variable control systems. Multivariable loop-shaping,
performance requirements, model uncertainty represen-
tations, and robustness covered in detail from fre-
quency domain perspective. Structured singular value
and its application to controller synthesis. Letter
grading.

275A. System Identification. (4) Lecture, four hours;
outside study, eight hours. Methods for identification
of dynamical systems from output-input data, with
emphasis on identification of discrete-time (digital)
models of sampled-data systems. Coverage of con-
version to continuous-time models. Models identified
include transfer functions and state-space models.
Discussion of applications in mechanical and aero-
space engineering, including identification of flexible
structures and computational mechanics (MEMS)
deVICES, and acoustic ducts. Letter grading.

M276. Dynamic Programming. (4) (Same as Elec-
trical Engineering M237.) Lecture, four hours; outside
study, eight hours. Enforced requisite: course C171A,
M270A. Introduction to mathematical analysis of sequen-
tial 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 and estimation, Markov deci-
sion processes, combinatorial optimization, commu-
nications. Letter grading.

277. Advanced Digital Control for Mechatronic
Systems. (4) Lecture, four hours; laboratory, two
hours; outside study, six hours. Requisites: courses
171B, M270A. Digital signal processing and control
analysis. Design of digital controllers for mechatronic
systems. Based digital control algorithms and robustness prop-
erties. Youla parameterization of stabilizing control-
lers, previewed optimal feedforward compensator, re-
petitive and adaptive control, and adaptive control.
Real-time control investigation of topics to selected
mechatronic systems. Letter grading.

279. Dynamics and Control of Biological Oscilla-
tions. (4) Lecture, four hours; outside study, eight
hours. Requisites: courses 107, M270A. Analysis and
design of dynamical mechanisms underlying biolog-
ical control systems that generate coordinated oscil-
lations. Topics include neuronal information pro-
cessing, action potentials (spike train), central
pattern generator, coupled nonlinear oscillators, op-
timal gains (periodic motion) for animal locomotion,
and entrainment to natural oscillations via feedback
control. Letter grading.

CM280A. Introduction to Micromachining and Mi-
croelectromechanical Systems (MEMS). (4) (Same
as Bioengineering CM250A and Electrical Engineer-
ing CM250A.) Lecture, four hours; discussion, one
hour; outside study, eight hours. Requisites: course
C273A, 20A, 20L, Physics 1A, 1B, 4A, 4BL. Intro-
duction to micromachining technologies and microelec-
tromechanical systems (MEMS). Methods of microma-
chining and how these methods can be used to pro-
duce variety of MEMS, including microstructures, mi-
crosensors, and microactuators. Students design microfabrication process capable of achieving de-
sired MEMS device. Concurrently scheduled with
course CM180. Letter grading.

CM280B. Microelectromechanical Systems (MEMS)
Fabrication. (4) (Same as Bioengineering M250B and
Electrical Engineering M250B.) Lecture, three
hours; discussion, one hour; outside study, eight
hours. Enforced requisite: course CM180 or CM280A.
Advanced discussion of micromachining processes
used to construct MEMS. Coverage of many litho-
graphic, deposition, and etching processes, as well
as their combination in process integration. Materials
issues such as chemical resistance, corrosion, me-
chanical properties, and residual/intrinsic stress
Letter grading.

CM280L. Introduction to Micromachining and Mi-
croelectromechanical Systems (MEMS) Laborato-
ry. (2) (Same as Bioengineering CM250L and Elec-
trical Engineering CM250L.) Laboratory, one hour;
outside study, eight hours, one hour. Requisites:
course CM280A, Chemistry 20A, 20L, Physics 1A,
1B, 1C, 4A, 4BL. Hands-on introduction to microma-
chining technologies and microelectromechanical
systems (MEMS) laboratory. Methods of microma-
chining and how these methods can be used to pro-
duce variety of MEMS, including microstructures, mi-
crosensors, and microactuators. Students go through
process of fabricating MEMS device. Concurrently
scheduled with course CM180L. Letter grading.

281. Microschemes. (4) Lecture, four hours;
outside study, eight hours. Requisites: courses
131A, 150A. Basic science issues in micro world. Topics include
micro fluid science, microscale heat transfer, mechan-
ic behavior of microstructures, as well as dynamics and
control of micro devices. Letter grading.

M282. Microelectromechanical Systems (MEMS)
Device Physics and Design. (4) (Same as Bioengi-
neering M252 and Electrical Engineering M252.) Lec-
ture, four hours; outside study, eight hours. Introduc-
tion to MEMS devices, design rules, sensing and
actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced
with both foundry and nonfoundry processes. Com-
puter-aided design for MEMS. Design project re-
quired. Letter grading.

(4) Lecture, four hours; outside study, eight hours.
Principles and performance of micro transducers. Ap-
plied devices using unique properties of micro trans-
ducers for distributed and real-time control of engi-
neering problems. Associated signal processing re-
quirements for these applications. Letter grading.

C286. Applied Optics. (4) Lecture, four hours;
discussion, two hours; outside study, six hours. Requi-
site: Physics 1C. Fundamental principles of optical
systems. Geometric optics and aberration theory. Dif-
fraction and interference. Basic Fourier optics. Propagation of light, Snel's law, and Huygen prin-
ciple. Refraction and reflection. Plane waves, sph-
erical waves, and image formation. Total internal reflec-
tion. Polarization, polarization plane, lenses and
aberrations, lenses laws and formation of images,
resolution and primary aberrations. Simple optical in-
struments, still cameras, shutters, apertures. Design
of telescopes, microsensors and microactuators. Design
and biodetection. Basic physical, chemical, and
biological principles related to these techniques, top-
down and bottom-up (self-assembly) nanofabrication,
nanoelectronics, and nanobiotechnology. Introduction
new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire
new ideas in multidisciplinary nano areas. Letter grading.

C287L. 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, characteriza-
tion, and biodetection. Basic physical, chemical, and
biological principles related to these techniques, top-
down and bottom-up (self-assembly) nanofabrication,
nanoelectronics, and nanobiotechnology. Introduction
new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire
new ideas in multidisciplinary nano areas. Letter grading.

C288. Laser Microfabrication. (4) Lecture, four hours;
outside study, eight hours. Requisites: Materials Sci-
cence 104, Physics 17. Science and engineering of
laser microfabrication. Basic science issues in micro-
domain. Topics include semiconductors, metals, and insulators. Topics include fundamentals in laser interactions with
advanced materials, transport issues (therma, mass, chemical, carrier, etc.) in laser microfabrication, state-
of?-art optics and instrumentation for laser microfab-
rication, applications such as rapid prototyping, sur-
face modifications (physical/chemical), microma-
chining for three-dimensional MEMS microelectronics, micromanipulators, nanodevices, and data storage, up-to-date research activities. Student term projects. Letter grading.
294. Computational Geometry for Design and Manufacturing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 184. Computational geometry for design and manufacturing, with special emphasis on curve and surface theory, geometric modeling of curves and surfaces, B-splines and NURBS, computer-aided design and surfaces, computer-aided design and manufacture, and current research topics in computational geometry for CAD/CAM systems. Letter grading.

295B. Internet-Based Collaborative Design. (4) Lecture, reading, study, eight hours. Requisites: courses 94, 184. Exploration of advanced state-of-the-art concepts in Internet-based collaborative design, including software environments to connect designers over the Net, networked variable media graphics, environments such as high-end virtual reality systems, mid-range graphics, and low-end mobile device-based systems, and multifunctional design collaboration and software tools to support it. Letter grading.

295C. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Designed for graduate engineering students. Examination of emerging aspects 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, and national security. Letter grading.


297A. Material Processing in Manufacturing. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 183. Thermodynamics, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting/solidification, welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.

297B. Thermochromical Processing of Materials. (4) (Formerly numbered 296B.) Lecture, four hours; outside study, eight hours. Requisite: course 183. Thermodynamics, heat and mass transfer, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, moving interfaces and heat sources, natural convection, nucleation and growth of microstructure, etc. Applications with chemical vapor deposition, infiltration, composites. Letter grading.

M299A. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M297 and Electrical Engineering M248B.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their work in a seminar and receive feedback. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requisites: internship experience under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Preparation: appointment as teaching assistant in department. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12)Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examination. (2 to 18) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for Ph.D. comprehensive examination. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U 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

M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Pathology M215 and Pediatrics M215.) Lecture, two and one-half hours. Preparation: basic courses in microbiology and parasitology of infectious disease, or School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of the world. Major emphasis on infectious diseases, with coverage of problems in nutrition and exotic noninfectious diseases. Syllabus supplements topics covered in classroom. S/U grading.

M256. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M298, and Oral Biology M256.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Biomathematics M260A-M260B.) Lecture, four hours; discussion, two hours. Preparation: recommended: M.D., Ph.D., or dental degree. Requisites: Biomathematics 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Biomathematics M260C.) Discussion, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Biomathematics M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB). Preparation: M.D., Ph.D., or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biomathematics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (M.D., D.D.S., D.N.Sc., 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 M296A and Computer Science M296A.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartmental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, simulations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M270D. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biomathematics M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM286B or Biomathematics 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 building 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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Jeffery F. Miller, Ph.D., Chair

Professors

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Irvin S. Y. Chen, Ph.D.
Genhong Cheng, Ph.D.
Asim Dasgupta, Ph.D.
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Lawrence T. Eyre, Ph.D.
Robert P. Gunsalus, Ph.D.
David A. Haake, M.D., in Residence
Kent L. Hill, Ph.D.
Alexander Hoffmann, Ph.D.
Marcus Horwitz, M.D.
Patricia J. Johnson, Ph.D.
H. Ronald Kabaek, M.D.
Donald B. Kohn, M.D.
Aldons J. Lusis, Ph.D.
Otoniel M. Martinez-Maza, Ph.D.
M. Carre Miceli, Ph.D.
Jefry F. Miller, Ph.D., (M. Philip Davis Professor of Microbiology and Immunology)
Jeffrey H. Miller, Ph.D.
Robert L. Modlin, M.D.
Shere L. Morrison, Ph.D.
Manuel L. Penichet, M.D., Ph.D.
Wenyuan Shi, Ph.D.
Stephen T. Smale, Ph.D.
Fuyuhiko Tamanoi, Ph.D.
Christel H. Uittenbogaart, M.D., in Residence
Owen N. Witte, M.D. (President's Professor of Developmental Immunology)
Otto Y. Yang, M.D.
Jerome H. Zack, Ph.D.
Z. Hong Zhou, Ph.D.

Professors Emeriti

Benjamin Bonavida, Ph.D.
Frederick A. Eislering, Ph.D.
Sydney M. Finegold, M.D.
C. Fred Fox, Ph.D.
Rafael J. Martinez, Ph.D.
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Dan S. Ray, Ph.D.
Larry Simpson, Ph.D.
Karl O. Stetter, Ph.D.
Ronald H. Steen, Ph.D.
Randolf Wall, Ph.D.
Felix O. Wettstein, Ph.D.
Bernadine J. Wisnieski, Ph.D.

Associate Professors

Kenneth A. Bradley, Ph.D.
Peter J. Bradley, Ph.D.
David G. Brooks, Ph.D. (Johanna F. and Joseph H. Shaper Family Professor of Microbiology)
Beth A. Lazazzera, Ph.D.
Hanna K.A. Mikkola, M.D., Ph.D.
April D. Pyle, Ph.D.
Yi Xing, Ph.D.

Assistant Professors

Steven J. Bensinger, V.M.D., Ph.D.
Elissa A. Hallen, Ph.D.
Lili Yang, Ph.D.

Adjunct Associate Professor

Imke Schroeder, Ph.D.

Scope and Objectives

Microbiology at UCLA is a diverse science that includes bacteriology, virology, immunology, genetics, molecular biology, and the study of single cells. The science has its roots in the fundamental human needs of health, nutrition, and environmental control, and it provides opportunities for study in the basic biological fields of genetics and cellular and molecular biology.

Undergraduate students majoring in the Department of Microbiology, Immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, biotechnology and genetic engineering, industrial microbiology, agricultural or environmental sciences, public health, and law or bioethics, among others. The courses presented by the department lead to a Bachelor of Science degree and depend heavily on preparation in the biological sciences, chemistry, physics, and mathematics.

The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, cell and virus structure and morphogenesis, animal virology, general bacteriology and physiology, host/parasite relationships, medi-
cal 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.

**Undergraduate Study**

**Microbiology, Immunology, and Molecular Genetics B.S.**

**Microbiology, Immunology, and Molecular Genetics Premajor**

While students are completing the preparation courses for the major, they are classified as Microbiology, Immunology, and Molecular Genetics premajors.

**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 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and Statistics 13T; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or lower in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 1602B Molecular Sciences.

**The Major**

Two plans are offered by the department:

**Plan I—Research Immersion Laboratory**

**Required:** (1) Three foundation courses: Chemistry and Biochemistry 153A, Microbiology, Immunology, and Molecular Genetics 101, 185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) three focus elective courses selected from Chemistry and Biochemistry 153L, Molecular Biology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (4) at least 12 units of general elective courses selected from any course under item 3 above, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, C161A, 171, 172, C179, C181, Ecology and Evolutionary Biology 121, 135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics C122, 174, 191H, 198C, 199 (may be taken twice), Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, 165A, 168, 172, 187AL, Neuroscience M101A, M101B, M101C.

No more than 8 units of course 198C or a combination of 198C and 199 may be applied toward the general electives under Plan I.

**Plan II—Advanced Independent Research**

**Required:** (1) Three foundation courses: Chemistry and Biochemistry 153A, Microbiology, Immunology, and Molecular Genetics 101, 185A, (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) three focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (5) at least 8 units of general elective courses selected from any course under item 3 above, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, C161A, 171, 172, C179, C181, Ecology and Evolutionary Biology 121, 135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 198A, 198B, and students complete all major requirements individually.

The Honors Program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with departmental honors. The department also offers an honors seminar course each Winter Quarter that is required for the honors program. For further information, contact the Student Affairs Office, 1602B Molecular Sciences.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Microbiology, Immunology, and Molecular Genetics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Microbiology, Immunology, and Molecular Genetics.

**Microbiology, Immunology, and Molecular Genetics**

**Lower Division Courses**

5. Science of Memory and Learning. (4) Lecture, seven hours. Nature of intelligence, overview of brain structure, study of memory systems, including memory retrieval, context of memories with emotion, sleep, and memory. Survey of metacognition and performance of learning. Offered in summer only; P/NP or letter grading.

6. Microbiology for Nonmajors. (4) Lecture, four hours. Not open for credit to students with credit for course 101. Designed for nonscience students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

10. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 3A or 31A. Limited to Nursing majors. Introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and disease caused by microbial infections. Letter grading.

20. Preclinical Microbiology. (4) Lecture, four hours; discussion, one hour. Requisite: Mathematics 3A or 31A. Investigation of medical microbiological life, with emphasis on bacterial pathogens from host, as well as pathogen, perspective. Role of...
pathogens in development of human immune response, presentation of symptoms and disease caused by microbial infections, and diagnosis and treatment of microbial infections. Offered in summer only. Letter grading.

Upper Division Courses

100L. Microbiology Laboratory for Professional Schools. (3) Lecture, two hours; laboratory, three hours. Requisite: Life Sciences 3, 4, with grades of C or better. Recommended corequisite: course 101. Limited to nonmajors. Experimental techniques of microbiology, with emphasis on cultivation and characterization of bacterial species. Laboratory exercises include light microscopy, quantitative techniques, and identification methods. Students learn to work effectively in groups to perform experiments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 3, 4. Historical foundations of microbiology; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 3 with grade of C– or better. Biological properties of bacterial and animal viruses; replication, methods of detection, interactions with host cells and multicellular hosts. Letter grading.

103AL. Research Immersion Laboratory in Virology. (5) (Formerly numbered 103L) Lecture, two and one half hours; laboratory, eight hours. Requisite: Life Sciences 3, 4, 23L. Recommended requisite or corequisite: course 101. Course 103AL is enforced requisite to 103BL. 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 bacterial viruses (phages). Working in teams, students conduct research projects that incorporate techniques in microbiology, virology, and molecular biology and involve use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

103BL. Advanced Research Analysis in Microbiology. (5) Lecture, three hours; laboratory, eight hours. Requisites: Life Sciences 3, 4, 23L. Enforced requisite or corequisite: course 101. Course 103AL is enforced requisite to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Designed to provide students authentic, discovery-based research experience in life sciences. Investigation to be primarily computational in nature whereas students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which students groups create, analyze, and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

109AL. Research Immersion Laboratory in Microbiology. (5) Lecture, three hours; laboratory, eight hours. Requisites: Life Sciences 3, 4, 23L. Recommended requisite or corequisite: course 101. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel microbial organisms. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and computational analysis software for data analysis. 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 citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

109BL. Advanced Research Analysis in Microbiology. (5) Laboratory, six hours. Enforced requisite: course 109AL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Designed to provide students authentic, discovery-based research experience in life sciences. Investigation to be primarily computational in nature whereas students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which students groups create, analyze, and formally present results to class. Production of team poster and final report describing entire research project required. Letter grading.

112. Mouse Molecular Genetics. (2) (Formerly numbered CM112) Seminar, two hours. Enforced requisites: course CM156, Life Sciences 4. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased power and scope of mouse genetics, and today mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of tools and technologies of mouse genetics and for identifying functional genomics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C222. P/NP or letter grading.

123. Advanced Annotation and Comparative Genomics. (4) Lecture, two and one half hours; computer laboratory, six hours. Requisite: course 103AL or Molecular, Cell, and Developmental Biology 187AL with grade of B– or better. Participation in discovery-based research experience, working as research team to analyze microbial genomes using bioinformatics techniques involving novel bioinformatics exercises. Investigation of cellular pathways and structures as means to discover novel genes and unusual variations in classical systems. Results of high-quality annotation efforts may lead to publication in peer-reviewed science journal. Part of DOE Joint Genome Institute Undergraduate Research in Microbial Genome Annotation education program. Offered in summer only. Letter grading.


C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for research courses or biological individual study course. Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Con- flicts 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 C239. P/NP grading.

CM156. Human Genetics and Genomics. (4) (Same as Molecular, Cell, and Developmental Biology CM136.) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 3, 4. Dissecting genomic principles in human populations, with emphasis on genomics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal model genetics, pharmacogenetics, prenatal screening, polygenic traits, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

158. Microbial Genomics. (4) Lecture, three hours; discussion, one hour. Requisites: course 101, Chemistry 153A. Evolution, biodiversity, and sequencing of genomes; bacterial and viral genomes; bioenergetics; gene knockouts; genomics of antibiotic resistance; proteomics. Guest lecturers from department and related departments who discuss key papers with focus on their areas of expertise. Letter grading.

168. Molecular Parasitology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. Survey of parasitic protozoa not only as parasites that interact with host, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular development, cell–cell interactions, molecular evolution, and novel biochemical pathways. Letter grading.

174. Advanced Topics in Molecular Parasitology. (2) (Formerly numbered C174.) Lecture, two hours. Requisite: courses 186, Life Sciences 3, 4. Examination of recent advances in molecular biology of parasites and host/parasite interactions. Specific topics include parasite development, antigenic variation in trypanosomes, RNA editing, prospects for vaccine development. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A. Students read and discuss scientific articles and give presentations, introducing research topics using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, acquisition 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 requisite: course 180A. Enforced corequisite: course 196B. Students give presentations similar to laboratory meeting or research symposium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Pro-
duction of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

185A. Immunology, 6 units, three hours; discussion, 90 minutes. Requisites: Life Sciences 3, 4, 23L. Recommended requisite or corequisite: Chemistry 153A. Not open for credit to students with credit for course C122. Enrollment limited to experimental immunology and immunoochemistry; cellular and molecular aspects of humoral and cellular immune reactions. Letter grading.

188A. Special Courses in Microbiology, Immunology, and Molecular Genetics. (4) Formerly numbered 188B. Seminar, four hours. Enforced requisites: Life Sciences 3, 4. 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.

188B. Special Courses in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Enforced requisite: Life Sciences 3. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite or corequisite: course 198A or 198B or 198C. Requisite or corequisite: course 198A or 198B or 198C. Limited to senior microbiology, immunology, and molecular genetics honors program students. May be repeated for credit. Students with senior status are strongly encouraged to participate. Credit depends on the amount of time spent on the research topic for the term. Letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics field. Letter grading.

194A. Research Group Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics field. Letter grading.

196B. Research Apprenticeship II in Microbiology, Immunology, and Molecular Genetics. (4) (Formerly numbered 199B.) Tutorial, 12 hours. Enforced requisites: course C122. Enrollment limited to experimental immunology and immunoochemistry; cellular and molecular aspects of humoral and cellular immune reactions. Letter grading.

197. Individual Studies in Microbiology, Immunology, and Molecular Genetics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in Microbiology, Immunology, and Molecular Genetics. (4-4-4) Tutorial, 2 hours; discussion, 2 hours. Requisite: sophomore standing in microbiology, immunology, and molecular genetics. Honors program students. Directed individual research under the guidance of departmental faculty sponsor. Progress report must be submitted to faculty sponsor at end of each term. With honors thesis, student may declare senior status. Letter grading.

199. Directed Research in Microbiology, Immunology, and Molecular Genetics. (4) Formerly numbered 199A.) Tutorial, 12 hours. Preparation: minimum 2.5 grade-point average in major and major. Supervised individual research project under guidance of departmental faculty mentor. Credit dependent on the amount of time spent on the research project. May be repeated for credit. Individual contract required. Letter grading.

212. Mouse Molecular Genetics. (2) Formerly numbered CM222.) Seminar, two hours. Enforced requisites: course CM156, Life Sciences 4. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased power of genetics, and today, mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of fundamental technologies of mouse genetics and their application to functional genomics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C122. S/U or letter grading.

229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Pathology M229.) Lecture, two hours; discussion, two hours. Requisites: Biological Chemistry 254A through 254D. Moleculer mecha-nisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include a pathogenesis of common viruses, bacteria, fungi, and parasites, basis of toxin-mediated cellular damage, and immune suppression of microbial tissue damage. Letter grading.

234. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investig-tators in research, data management, mentorship, grant applications. Responsibilities to peers, sponsoring institutions, and society. Con-flicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investi-gation goals and values may conflict. Concurrently scheduled with course C134. S/U grading.

CM256. Human Genetics and Genomics. (4) (Same as Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Analysis of genetic principles in human populations, with emphasis on genomics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal model systems, pharmacogenetics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodolo-gies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent re- search project required of graduate students. Letter grading.

251. Molecular and Cellular Immunology. (4) Lecture, four hours. Requisites: Biological Chemistry 254A through 254D. Strongly recommended corequisite: course 298. Comprehensive course for graduate students and selected undergraduate students covering fundamentals and recent advances in molecular and cellular immunology. Lectures supplemented by course 298 seminar, with focus on reading and analysis of primary research articles. Oral presentation re-quired. S/U or letter grading.

292-292B-292C. Seminars: Current Topics in Immunology of Cancer. (2-2-2) Seminar, two hours. Designed for graduate students (or undergraduate students with consent of department). Reading and discussion of recent literature in immunology, biology, and biochemistry of cancer, with emphasis on fundamental issues involving cell-mediated immunity, humoral response, tumor specific antigens, and new techniques. Discussion of reports on scientific meetings. Each course may be repeated for credit. S/U or letter grading.

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. Ad- vanced study and analysis of current topics in micro-biology, immunology, and molecular genetics. Discuss-ion of current research and literature in research spe-cialty of faculty member teaching course. S/U grading.

298. Current Topics in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Strongly recommended corequisite: course 261. Pre- sentation of student oral critiques and participation in discussions on assigned topics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Undergraduate student may secure personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid- ance and supervision of regular faculty member respon-sible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Microbiology in Higher Education. (2) Seminar/discussion/labora-tory, two hours. Designed for graduate students. Study of problems and methodologies in teaching micro-biology, including workshops, seminars, appren-tice teaching, and peer observation. S/U or letter grading.


Molecular and Medical Pharmacology

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Matthew E. Conolly, M.D.
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Steven M. Dubinett, M.D.
James S. Economou, M.D., Ph.D.
Ming Guo, M.D., Ph.D.
Cameron B. Gundersen, Ph.D.
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David A. Hovda, Ph.D.
Jing Huang, Ph.D.
Sung-Cheng (Henry) Huang, D.Sc.
Noriyuki Kasahara, M.D., Ph.D.
Daniel L. Kaufman, Ph.D.
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Joy A. Umbach, Ph.D.
Ting-Ting Wu, Ph.D.

Adjunct Professors

Maria G. Castro, Ph.D.
James R. Heath, Ph.D.
Barbara A. Levey, M.D. (Rosalinde and Arthur Gilbert Foundation Endowed Professor of Interdepartmental Clinical Pharmacology)
Pedro R. Lowenstein, M.D., Ph.D.
David B. Stout, Ph.D.
Jide Tian, M.D.

Adjunct Associate Professors

Wei Chen, Ph.D.
Mei-Sheng Jiang, Ph.D.
Jing Liang, M.D., Ph.D.
Tove Olafsen, Ph.D.
Wei Wei, Ph.D.

Adjunct Assistant Professors

Heather R. Christofk, Ph.D.

Scope and Objectives

The Department of Molecular and Medical Pharmacology offers a unique opportunity for gifted students to work with accomplished faculty members toward making novel discoveries in basic and clinical research.

Departmental research interests span a broad range of studies: investigating biological, physical, engineering and medical sciences to explore mechanisms of disease in biological systems from a single cell to the whole organism level, while encompassing patient studies. Faculty members strive to understand basic biological systems and diseases, and when appropriate, to use these observations to develop new molecular diagnostic technologies and new molecular therapeutics.

With the department as home to the Crump Institute for Molecular Imaging and the Ahmanson Translational Imaging Division with its nuclear medicine and positron emission tomography (PET) imaging research and clinical service, students have access to both 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 provides education, experience, and industry mentorship to graduate students in the department and in other academic programs to prepare them for professional careers.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Molecular and Medical Pharmacology offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Molecular and Medical Pharmacology but does not admit applicants who seek only an M.S. degree.

The department also offers two M.D./Ph.D. programs concurrently with the Geffen School of Medicine. One is the Medical Scientist Training Program (MSTP) in which candidates are medical students that have been accepted into MSTP by the School of Medicine in order to qualify. The second is the Specialty Training and Advanced Research (STAR) Program in which candidates are post-M.D. housestaff (interns, residents, or fellows) who have been accepted into the STAR Program by its selection committee in order to qualify.

The department, together with the Division of Laboratory Animal Medicine, offers Ph.D. or postdoctoral training combined with residency training for veterinarians (with D.V.M. or D.V.M./Ph.D. degrees) in the Veterinary Investigator in Scientific Training and Advancement (VISTA) program.

Note: There is no degree program in pharmacy at UCLA.

Molecular and Medical Pharmacology

Upper Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Molecular Toxicology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, Course M110A is requisite to 110B. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

M110B. Drugs: Mechanisms, Uses, and Misuse. (4) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: course M110A, Life Sciences 2, Introduction to pharmacology for undergraduate students, emphasizing principles underlying mechanism of action of drugs, their development, control, rational use, and misuse. Letter grading.

194. Research Group or Internship Seminars: Cross-Disciplinary Scholars in Science and Technology Project. (4) Seminar, two hours. Limited to Cross-Disciplinary Scholars in Science and Technology (CSST) students. Communication and collaboration skills, specifically in interdisciplinary research settings and introduction to research project design and proposal process. Stu-
Grades and Grading Policies

Semester

Pharmacology and mechanisms of drug action at or
hours total. Detailed examination of principles of
Pharmacology. (6)
237. Research Frontiers in Cellular and Molecular
data analysis at discussion session prior to laboratory.
ments conducted within known toxin to demonstrate
 techniques used in study of toxic substances. Experi-
mentation, and study of mechanisms of action of
gy. (2-2)
M248. Introduction to Biological Imaging. (4)
(Same as Bioengineering M248 and Biomedical
Physics 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.
251. Seminar: Pharmacology. (2), Seminar, two hours.
Required of all first- and second-year students. Pre-
sentation and discussion of graduate student re-
search presentations designed to illustrate principles of pharma-
ology in a clinical context, and solution of practical
problems that are encountered in the use of drugs in med-
icine. S/U or letter grading.
M252A. Molecular Mechanisms of Human Diseas-
es I. (4) (Same as Molecular, Cellular, and Integrative
Physiology M252A.) Lecture, four hours. Preparation:
prior satisfactory biological science coursework.
Corequisite: course M252B. Fundamental concepts and
 methodologies in modern biology, with emphasis on
implications and relevance to human disease and
integration of biology with mechanisms underlying
disease development and applications in therapy as
they apply to cancer biology, infectious disease, and
modern biological approaches. Letter grading.
M252B. Seminar: Molecular Mechanisms of Hu-
man Diseases II. (4) (Same as Molecular, Cellular, and
Integrative Physiology M252B.) Seminar, two hours.
Corequisite: course M252A. Reading, review, and dis-
cussion of primary research literature addressing fun-
damental concepts and methodologies in modern bi-
ology, with particular emphasis on implications and relevance to
human diseases of topics presented in course M252A. Letter grading.
M257. Introduction to Toxicology. (4) (Same as Path-
ology M257.) Required of all, and recommended if any
contact with human disease. Letter grading.
M258. Pathophysiology of Chronic Toxicity. (4)
(Same as Pathology M258) Designed to give stu-
dents experience in learning normal history of tis-
sues which are major targets of toxin and the range of patho-
logic changes which are associated with them (liver, kidney, nerve-
system, and vascular system). S/U or letter grading.
261. Institute for Molecular Medicine Seminar Series:
Analysis and Discussion. (2) Seminar, one hour.
Corequisite: course 251. Limited to graduate students.
In-depth evaluation of Institute for Mol-
ecular Medicine (IMED) Seminar speakers, with focus on
scientific approach and rationale, experimental
methods, novel and pioneering findings (past and
present), relevant background information on
speakers and their institute, and presentation style
and communication strengths. Discussion on charac-
teristics that define and shape leaders in given fields.
Students host lunches with seminar speakers, lead
discussions to deconstruct all aspects of seminar
presentations, and submit write-ups for online Wiki-
pages on seminar topics. S/U or letter grading.
M262A. Molecular Mechanisms of Human Diseas-
es II. (4) (Same as Molecular, Cellular, and Integrative
Physiology M262A.) Lecture, four hours. Preparation:
prior satisfactory molecular biology coursework.
Corequisite: course M262B. Fundamental concepts and
 methodologies in modern biology, with emphasis on
implications and relevance to human disease and
integration of biology with mechanisms underlying
disease development and applications in therapy as
they apply to neurological, cardiovascular, and meta-
bolic diseases. Letter grading.
M262B. Molecular Mechanisms of Human Diseas-
es II. (2) (Same as Molecular, Cellular, and Integrative
Physiology M262B.) Seminar, two hours.
Corequisite: course M262A. Reading, review, and discussion of
primary research literature addressing fundamental
concepts and methodologies in modern biology, with
particular emphasis on implications and relevance to
human diseases of topics presented in course M262A. Letter grading.
296. Business of Science: Exploring Entrepreneur-
ship Seminar. (1) Seminar, one hour. Limited to grad-
uate students. Further exploration of topics discussed in
course 287, allowing students to interact with
speakers and animal models. Letter grading.
298. Gene Therapy. (4) Lecture, three hours; discus-
sion, one hour. Introduction to basic concepts of gene
therapy, wherein treatment of human disease is based
on transfer of genetic material into an individual. Dis-
cussion of molecular basis of disease, gene delivery
vehicles, and experimental treatments performed.
Letter grading.
299. Research Projects, Proposals, and Presenta-
tions. (6) Lecture, four hours; discussion, four hours.
Limited to departmental majors. Introduction to
format and requirements of research proposals, so
students can critically review and give
oral presentations designed to illustrate principles of
pharmacology in a clinical context, and solution of practical
problems that are encountered in the use of drugs in med-
icine. S/U or letter grading.
324A-324B. Experimental Methods in Pharmacolo-
y. (2-2) Laboratory, three hours. Survey of experi-
mental methods and instrumentation used in analysis,
identification, and study of mechanisms of action of pharmaceuticals and/or biologically active compounds. S/U or letter grading.
molecular, and cellular levels. Special studies in pharmacology, including either
reading assignments or laboratory work or both, de-
signed for proper training of students. Culfing
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 labo-
atory research for beginning graduate students.
At end of each term students submit to their supervisor
reports covering research performed. Pharmacology
graduate students must take this course three times
during their first two years in residence. Letter
grading.
203. Medical Pharmacology. (2) Lecture, zero to two
hours; discussion, zero to two hours. Requi-
sites: courses 211A, 211B. Series of lectures and case pre-
sentations designed to cover cellular and molecular
principles of pharmacology in a clinical context, and solution of practical
therapeutics by reference to pharmacokinetics,
mechanisms of action, and disposition of drugs. S/U or letter grading.
M205A. Introduction to Chemistry of Biology. (4)
(Same as Chemistry CM205A.) Lecture, three hours;
discussion, one hour. Enforced requisite: Chemistry
153A with grade of C- or better. Introduction to chem-
ical biology. Topics include computational chemical
biology, utility of synthesis in biochemical research, peptidomimetics, designed receptors for cellular im-
ageing, natural product biosynthesis, protein engi-
eeering, and directed evolution. Cell biology of metal
ions, imaging metal ions in cells, metabolism.
Letter grading.
M205B. Issues in Chemistry/Biology Interface. (2)
(Same as Chemistry M205B.) Seminar, one hour. Requi-
site: course M205A. Selected topics and papers pre-
sented by training faculty on solving problems and
utilizing tools in chemistry and molecular biology on
211A-211B. Principles of Pharmacology. (4-2) Lec-
ture, three to eight hours; discussion, zero to nine
hours. Preparation: mammalian physiology, bio-
chemistry. Systematic consideration of principles governing inter-
actions at the molecular, cellular, and biological levels of
principal characteristics that define and shape leaders in given fields.
S/U or letter grading.
212A-212B. Graduate Commentary: Medical Phar-
macology. (2-2) Preparation: mammalian physiology,
Biochemistry. Supplementation of topics covered in
course 203. Primarily for graduate students. S/U or letter grading.
234A-234B. Experimental Methods in Pharmacolo-
y. (2-2) Laboratory, three hours. Survey of experi-
mental methods and instrumentation used in analysis,
identification, and study of mechanisms of action of pharmaceuticals and/or biologically active compounds. S/U or letter grading.
M234C. Laboratory in Toxicological Methods. (2)
(Same as Environmental Health Sciences M245 and
Molecular Toxicology M245.) Lecture, one hour; labo-
atory, four to five hours. Survey of experimental tech-
niques used in study of toxic substances. Experi-
ments conducted within known toxin to demonstrate its effects on molecular, and cellular levels. Special studies in pharmacology, including either
reading assignments or laboratory work or both, de-
signed for proper training of students. Culfing
paper or project required. May be repeated for credit.
Individual contract required. P/NP or letter grading.
237. Research Frontiers in Cellular and Molecular
Pharmacology. (8) Lecture, six hours; laboratory, five
hours total. Detailed examination of principles of pharmacology and mechanisms of drug action at or

Molecular and Medical Pharmacology / 499
Molecular Biology

Interdepartmental Program
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Luisa M. Iruela-Arispe, Ph.D., Chair

Faculty Committee
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Michael F. Carey, Ph.D. (Biological Chemistry)
Feng Guo, Ph.D. (Biological Chemistry)
Luisa M. Iruela-Arispe, Ph.D. (Molecular, Cell, and Developmental Biology)
Leanne Jones, Ph.D. (Molecular, Cell, and Developmental Biology)
William E. Lowry, Ph.D. (Molecular, Cell, and Developmental Biology)

Scope and Objectives

The Ph.D. 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 Ph.D. program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology; development- mental biology and neurobiology; nucleic acid biochemistry; gene regulation; immunobiology; microbiology/virology and pathogenesis; molecular evolution and paleobiology; oncogenes and signal transduction; plant molecular biology; protein and enzyme structure and function; genomics; bioinformatics; and structural biology.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgrad disproportion.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Molecular Biology Program offers the Doctor of Philosophy (Ph.D.) degree in Molecular Biology.

Molecular Biology

Graduate Courses

252. Writing for Science (1) Seminar, one hour. Corequisite: Biological Chemistry 251A or 251B or 251C, Limited to first-year Molecular Biology Ph.D.


Molecular, Cell, and Developmental Biology

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Utpal Banerjee, Ph.D., Chair

Professors
John S. Adams, M.D.
Utpal Banerjee, Ph.D. (Irvine and Jean Stone Endowed Professor of Life Science)
Jau-Nian Chen, Ph.D.
Daniel H. Cohn, Ph.D.
Robert B. Goldberg, Ph.D.
Volk H. Hartenstein, Ph.D.
Ann M. Hirsch, Ph.D.
Luisa M. Iruela-Arispe, Ph.D.
Steven E. Jacobsen, Ph.D.
James A. Lake, Ph.D.
Frank A. Laski, Ph.D.
Chentao Lin, Ph.D.
Shuo Lin, Ph.D.
Karen M. Lyons, Ph.D.
Elaine M. Tobin, Ph.D.

Professors Emeriti
William R. Clark, Ph.D.
John H. Fessler, Ph.D.
Harumi Kasamatsu, Ph.D.
John R. Merriam, Ph.D.
Paul H. O'Lague, Ph.D.
Winston A. Salser, Ph.D.
Clara M. Szego, Ph.D.

Associate Professors
Anil Bhushan, Ph.D.
Amander T. Clark, Ph.D.
Harumi Kasamatsu, Ph.D.
Andrew C. Diener, Ph.D.
Tracy L. Johnson, Ph.D.
Leanne Jones, Ph.D.
Jeffrey A. Long, Ph.D.
William E. Lowry, Ph.D. (Maria Rowena Ross Professor of Cell Biology and Biochemistry)

Kanna A. Mikkola, M.D., Ph.D.
Atsushi Nakano, M.D., Ph.D.
Matteo Pellegrini, Ph.D.
Alvardo Sagasti, Ph.D.

Lecturers
Tiffany T. Cvrkel, Ph.D.
Pei-Yun Lee, Ph.D.

Adjunct Professor
Nissim Benevisty, M.D., Ph.D.

Scope and Objectives

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 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 Ph.D. degree provides opportunity for advanced concentrated study and requires independent and innovative research that ultimately results in publishable dissertation materials.

Undergraduate Study
Molecular, Cell, and Developmental Biology B.S.

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.

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 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, or 32A, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 at http://www.admissions.ucla.edu/prospect/admission_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required Courses: Chemistry and Biochemistry 153A; one course from Molecular, Cell, and Developmental Biology 104AL, 150AL, 187AL, 198B, 198C, 199B, 199C, or Microbiology, Immunology, and Molecular Genetics 103AL; one developmental biology course from Molecular, Cell, and Developmental Biology 138 or C141; one cell biology course from M140 or 165A; and one molecular biology course from 144 or 165B.

Electives: At least 20 upper division elective units, of which at least 10 must be in courses offered by the department. Any upper division departmental course, except Molecular, Cell, and Developmental Biology 100, 190A, 190B, 190C, 192A, 192B, 193, 194A, or 199, may be selected. The following courses outside the department may be taken to satisfy a maximum of 10 units in this category: Biostatistics 100A or Statistics 100A, Chemistry and Biochemistry 153C; 153L, 154, 156, C159A, C159B, CM160A, Ecology and Evolutionary Biology 110, 121, 162, 162L, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 100L, 101, 102, 103AL, 105, 106, 158, 168, 174, 185A, Physiological Science C126, 166, Society and Genetics M102.

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. Due to content overlap, students with credit for both courses 165A and 165B cannot receive major credit for course M140.

A maximum of 4 units of approved seminar course credit may be applied toward the electives requirement. A maximum of 12 units of Molecular, Cell, and Developmental Biology 198A through 198D or 199A through 199D may be applied toward the major. Credit for 199 courses from other departments may not be applied except by petition.

Any single course may be applied toward only one category within the major (e.g., course C141 may be applied toward the required or elective category but not toward both).

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Majors must earn a C– or better in each preparation for the major course, and at least a 2.0 (C) overall average in all courses applied toward 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 further information and application forms, students should consult the Student Affairs Office, 128 HERSHEY HALL, early in their educational planning. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

The core of the program consists of at least one approved undergraduate seminar course from Molecular, Cell, and Developmental Biology 191 and three research courses (12 units minimum) from 198A, 198B, and 198C, culminating in a thesis.

To qualify for graduation with honors, students must satisfactorily complete all requirements for the honors program and the major and obtain at least an overall 3.0 grade-point average and a 3.5 GPA or better in coursework required for the major. On recommendation by the faculty sponsor and with approval of the thesis by the departmental honors committee, students are awarded no honors, departmental honors, or highest departmental honors.

At the discretion of the departmental honors committee, students who have (1) a GPA of 3.6 or better, both overall and in the major and (2) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186 or Ecology and Evolutionary Biology C159. 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Molecular, Cell, and Developmental Biology offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Molecular, Cell, and Developmental Biology.
Molecular, Cell, and Developmental Biology

Lower Division Courses

40. AIDS and Other Sexually Transmitted Diseases. (5) Lecture, three hours; discussion, one hour; experimental lab. Not open for credit to students with credit for course 104BL. Enforced requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Discussion of contemporary public health approaches to characterizing and addressing of HIV epidemic in the United States and other sexually transmitted diseases. P/NP or letter grading.

50. Stem Cell Biology, Politics, and Ethics: Teasing Apart Issues. (5) Lecture, three and one-half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as differences in their biomedial potentials. Discussion of history of debate surrounding embryos, as well as various social, ethical, political, and economic aspects of stem cell research. P/NP or letter grading.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and exploration of how and why bioethics is relevant to reproductive screening, policy formation, public regulation, and law. Provides foundation in traditional ethics, consideration of subcategories of ethics, and eugenics, and how to apply ethics to contemporary issues in research and technology. P/NP or letter grading.

70. Genetic Engineering and Society. (5) Lecture, four hours; discussion, one hour. Designed for nonmajors. Not open to students with credit for Honors College 70A or Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering concepts and applications of genetic engineering to medicine, agriculture, and society. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.

80. Green World: Plant Biology for Now and Future. (5) Lecture, two and one-half hours; laboratory, two hours. Designed for nonmajors. Basic principles of plant biology and introduction to techniques for manipulating plants for improved agriculture, sources of renewable clean energy, reclamation of deforested lands, and biological factors of renewable clean energy, reclamation of deforested lands, and biological factors of renewable clean energy, reclamation of deforested lands, and biological factors of renewable clean energy, reclamation of deforested lands, and biological factors. Lecture, two hours; laboratory, two hours. Designed for nonmajors. Basic principles of plant biology and introduction to techniques for manipulating plants for improved agriculture, sources of renewable clean energy, reclamation of deforested lands, and biological factors of renewable clean energy, reclamation of deforested lands, and biological factors. Emphasis on role of natural compounds in plant/microbe, plant/plant, and plant/herbivore interactions; synopsis of principles of plant defense mechanisms and responses to microbial infections. Concurrently scheduled with course C250. P/NP or letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (5) (Formerly numbered 104T.) Lecture, two hours; laboratory, eight hours. Enforced requisites: Life Sciences 1, 2, 3, 4, 115, or 23L. Introduction to the experimental design, techniques of modern molecular biology, and basic genetic principles that underpin the understanding of developmental biology. Not open for credit to students with credit for course M140 or 165A. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane transport, cellular signaling, and communication cell movement, intra-cellular trafficking, cell energetics. 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. Development of sophisticated understanding of DNA, RNA, and protein as well as capability of designing experiments to address fundamental questions as model system. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computational approaches. May not be repeated for credit. Letter grading.

120. Introduction to Plant Biology. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Introduction to plant biology, as well as to concepts and techniques in molecular biology and genetics. Letter grading.


141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, 23L. In-depth study of basic processes of growth differentiation and development in plants and molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on developing critical understanding of current experimental basis of research in this field. Concurrently scheduled with course C239. Letter grading.


143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisites: course 138, Life Sciences 3, 4, 23L. Cellular and molecular basis of animal embryology, with primary emphasis on vertebrate organ development, but including pertinent material from Droso phila and other invertebrate model organisms. Letter grading.

144. Molecular Biology of Cellular Processes and Experimental Applications of Theory. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, 23L. Not open for credit to students with credit for course 104AL. Enforced requisite to understand fundamental of complex of modern molecular biology both from perspective of known molecular mechanisms for regulating fundamental processes in cells as cytoskeletal movement, intracellular trafficking, cell energetics. Letter grading.

150AL. Research Immersion Laboratory in Plant-Microbe Ecology. (5) (Formerly numbered 150L) Laboratory, four hours. Enforced requisite: course C150. Course 150AL is enforced requisite to 150BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Introductory plant biology laboratory to give students hands-on experience doing experiments and making their own observations about plant biology. Letter grading.

150BL. Advanced Research Investigations in Plant-Microbe Ecology. (4) Laboratory, six hours. Enforced requisites: courses C150 and 150AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Analysis and presentation of data obtained in course 150AL. Investigation to be primarily computational in nature whereby students use bioinformatic or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, and reports. Discussion of scientific method, research process, and how science relates to daily lives. Letter grading.


CM156. Human Genetics and Genomics. (4) (Same as Microbiology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Application of genetic principles in human populations, with emphasis on genomics, family studies, population cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

162. Genetic Control of Animal Behavior. (5) Lecture, three hours; discussion, one hour. Enforced requisites: Life Sciences 4, two upper division molecular, cell, and developmental biology or neuroscience courses. How do worms decide whether something smells good or bad? What happens to brain of fruit fly when it is exposed to alcohol? How does fish embryo decide whether to respond to touch by swimming leisurely or rapidly escaping? Behavior of animals, including humans, is controlled by ensembles of neurons that interact to form neural circuits. Understanding how these circuits function is unifying goal of neurobi-
ology. Physiological techniques have been used in past to investigate logic of neural circuits. Scientists now ask how genes make neural circuits work and use variety of cutting-edge genetic and molecular techniques. Survey of recent primary literature that applies these approaches to three models: olfaction in nematode worms, alcohol-induced behavior in fruit flies, and motor responses in zebras. Letter grading.

165A. Biology of Cells. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 140 or 308, Life Sciences 2 or 3, and permission of credit for course 100 or M140. Molecular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussion to recent scientific articles that directly relate to information examined in lectures. Letter grading.


170A. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Chemistry CM170.) Lecture, two to three hours; discussion, two to four hours. Requisites: Chemistry 15A and 15B, or Life Sciences 3 and 23L, and Chemistry 153L. Recommended: Chemistry 153C, 154, Life Sciences 4. Light harvesting, photochemistry, electron transfer, carbon fixation, carbohydrate metabolism, pigment synthesis, enzymes, and other photosynthetic membranes and regulation of genes encoding those components. Emphasis on understanding of experimental approaches. P/NP or letter grading.

172. Genomics and Bioinformatics. (5) Lecture, three hours; discussion, one hour. Requisite: course 144 or 165B or Chemistry 153B or Microbiology 132. Genomics is study of complete repertoire of molecules and proteins and related human ancestry and evolution. Genomes and genetic approaches to study of function of individual genes, fundamental bioinformatics algorithms used to study relationship between nucleotide and protein sequences and reconstruction of their evolution, use of microarray technologies to measure changes in gene expression, analysis of microarray data including clustering and promoter analysis, proteomics topics including protein expression and interactions, epigenomic study of DNA methylation and chromatin modification, and systems biology, or computational approaches to integrating varied genomic data to gain more complete understanding of cellular and developmental biology. Letter grading.

174A-174D. Advanced Topics in Cell and Molecular Biology. (2 each) Lecture, two hours. Requisites: courses 100 or C139 or M140, Life Sciences 4. Recent developments in field of cellular and developmental biology. Concurrently scheduled with courses C222A-C222D. Letter grading.

174A. Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or C139 or M140, Life Sciences 4. Lecture two hours. Requisites: courses 100 or C139 or M140, Life Sciences 4. Animal cell nucleus regulation of cell metabolism. Structure/function relationships, nuclear-cytoplasmic exchange, DNA replication and gene expression. Letter grading.


175A. Molecular Genetics. (2) Lecture, four hours; discussion, two hours. Requisites: courses 100 or C139 or M140, Life Sciences 4. Animal cell nucleus regulation of cell metabolism. Structure/function relationships, nuclear-cytoplasmic exchange, DNA replication and gene expression. Letter grading.

175B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, two hours. Requisites: courses 100 or C139 or M140, Life Sciences 4. Animal cell nucleus regulation of cell metabolism. Structure/function relationships, nuclear-cytoplasmic exchange, DNA replication and gene expression. Letter grading.


180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Requisites: courses 104 or 150L or 180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Requisites: courses 104 or 150L or 180A. Discussion of adult stem cells in hematopoietic, nervous, and other organ systems to provide examples of tissue-specific stem cells and their impact in human disease. Examination of various model organisms as examples of how model organisms have helped to formulate fundamental principles of stem cell biology. How advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Ethical and legal issues related to stem cell research. Letter grading.

180B. Advanced Research Analysis in Genomic Biology. (4) Laboratory, six hours. Enforced requisite: course 187AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Continuation, completion, and refinement of research on annotation of sequenced eukaryotic genome of unicellular green alga Chlamydomonas reinhardtii. Investigation to be primarily computational in nature. Students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Final report describing entire research project required. Letter grading.

187A. Research Immersion Laboratory in Genetic Biology. (Formerly numbered 187A.) Lecture, one hour; laboratory and research group meeting, two hours. Enforced requisite: Life Sciences 4, 23L. Course 187AL is enforced requisite to 187BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Not open for credit to students with credit for former course 187A or Life Sciences 187A. Introduction to cut-and-assembly genomic technologies and bioinformatics methods and resources for genome annotation. Students propose original research projects related to gene annotation and train themselves in using bioinformatics tools. Latest assembly of DNA and RNA from Chlamydomonas, algae organism that has limited genome annotation information available, to be provided. May not be repeated for credit. Letter grading.

187BL. Advanced Research Analysis in Genomic Biology. (4) Laboratory, six hours. Enforced requisite: course 187AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Continuation, completion, and refinement of research on annotation of sequenced eukaryotic genome of unicellular green alga Chlamydomonas reinhardtii. Investigation to be primarily computational in nature. Students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Final report describing entire research project required. Letter grading.

188A-188B. Special Courses in Molecular, Cell, and Developmental Biology. (2-2) Seminar, two hours. Corequisite for course 188A: course 179A or Molecular Biology 179A; for course 188B: Microbiology 179B. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188C. Special Courses in Molecular, Cell, and Developmental Biology. (4) Lecture, five hours. Requisite: course 104 or 150L or 180A. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

190A-190B. 190C. Joint Research Colloquia. (1-1-1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199 or 199A or 199B. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial research in model systems in joint laboratory meeting/semester setting
with one or more departmental faculty members whose laboratories are working on some or related model systems. Discussion and presentation of student work or related work in discipline to encourage a more sophisticated understanding of most current topics in research fields of students or fields using related model organisms. Letter grading.

190A. Topics in Research Fields of Students or Fields Using Related Work or Related Work in Discipline to Encourage Model Systems. Discussion and presentation of paper selected from current literature. May be repeated once for credit. P/NP or letter grading.

190B. Fundamental topics in research fields of students or fields using related work or related work in discipline to encourage model systems. P/NP or letter grading.

190C. Model System Developments. Limited to junior/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. (2) Seminar, two hours. Required: Requisite: course 179A. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.

192B. Undergraduate Practicum: CityLab. (Seminar, two hours. Limited to juniors/seniors in any life sciences major. CityLab training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

193. Journal Club Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisites: 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 synthesize results of research, not literature surveys or library research. At end of term culminating paper describing progress of research, not literature surveys or library research. At end of term course is requisite to 198A. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular biology, including experiments utilizing sequencing data. Original research proposal required. Letter grading.

199. Special Studies Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4. 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 in-depth study of basic processes of growth differentiation and cell-cell and cell-matrix interactions. S/U or letter grading.

199A or 199B or 199C. Limited to juniors/seniors in research traineeships or fields using related work or related work in discipline to encourage model systems. P/NP or letter grading.

212B. Undergraduate Practicum: CityLab. (Seminar, two hours. Limited to juniors/seniors in any life sciences major. CityLab training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

213. Journal Club Seminars: Molecular, Cell, and Developmental Biology. (Seminar, two hours. Required: Requisite: course 179A. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.


M230B. Structural Molecular Biology Laboratory. (Same as Chemistry M230B.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 3C, Physics 6C. Seminar and laboratory 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. (Same as Chemistry M230D.) Seminar, three hours; discussion, three 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 at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axon determination, nervous system development, cell morphology, cell-cell and cell-matrix interactions. S/U or letter grading.

M239. Molecular Basis of Plant Differentiation and Development. (6) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, 100 or 140. In-depth study of basic processes of growth differentiation and development in plants and molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on development and 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.

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.

288. Seminar: Seminar: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Recent research developments in field of plant molecular biology. Opportunities for graduate students to discuss individual research work. S/U grading.


290. Seminar: Seminar: Molecular Cell, and Developmental Biology. (2) Seminar, two hours. Recent advances in current topics in cell, molecular, and developmental biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296. Seminar: Seminar: Molecular, Cellular, and Developmental Biology. (2) Seminar, two hours. Recent advances in current topics in cell, molecular, and developmental biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

297. Seminar: Seminar: 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.

298. Seminar: Seminar: Advanced Topics in Molecular, Cellular, and Developmental Biology. (2) Seminar, 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.

the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 90 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 Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Molecular, Cellular, and Integrative Physiology Program offers the Doctor of Philosophy (Ph.D.) degree in Molecular, Cellular, and Integrative Physiology.

Molecular, Cellular, and Integrative Physiology
Graduate Courses
M200G. Biology of Learning and Memory. (4) (Same as Neurobiology M200G, 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.

M215. Molecular and Cellular Foundations of Physiology. (5) (Same as Physiological Science M215.) Lecture, three hours; discussion, two hours. Application of molecular and cellular approaches to systems level. Theoretical basis foundation for study of major physiological systems, with emphasis on levels of organization from molecular to macroscopic. Letter grading.

M252A. Molecular Mechanisms of Human Diseases I. (4) (Same as Pharmacology M252A.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M252B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

M252B. Molecular Mechanisms of Human Diseases II. (4) (Same as Pharmacology M252B.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M252B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human disease and integration of biology with mechanisms underlying disease development and applications in therapy as they apply to cancer biology, infectious disease, and modern biological approaches. Letter grading.

M252E. Seminar: Molecular Mechanisms of Human Diseases II. (2) (Same as Pharmacology M252E.) Seminar, two hours. Corequisite: course M252A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

M262A. Molecular Mechanisms of Human Diseases I. (4) (Same as Pharmacology M262A.) Lecture, four hours. Preparation: prior satisfactory molecular biology coursework. Corequisite: course M262B. Fundamental concepts and methodologies in modern biology, with emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.

M262B. Molecular Mechanisms of Human Diseases II. (4) (Same as Pharmacology M262B.) Seminar, two hours. Corequisite: course M262A. Reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in modern biology, with particular emphasis on implications and relevance to human diseases of topics presented in course M252A. Letter grading.


M290A-290B-290C. Tutorials. (4-4-4) Tutorial, two hours. Discussion, analysis, and critique of original research literature. Letter grading.

M375. 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 Ph.D. course requirements. May be repeated for credit. Letter grading.

Molecular Toxicology
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David E. Krantz, M.D., Ph.D. (Psychiatry and Biobehavioral Sciences)
Robert H. Schiestl, Ph.D. (Environmental Health Sciences, Pathology and Laboratory Medicine)

Scope and Objectives
Faculty from 15 departments and 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 Ph.D. 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, nanotoxicology, 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 keys 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 disci-
pliance 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 toxicokinetics 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 Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Molecular Toxicology Program offers the Doctor of Philosophy (Ph.D.) degree in Molecular Toxicology.

Molecular Toxicology

Upper Division Courses

M110A. Drugs: Mechanisms, Uses, and Misuse. (4) (Same as Pharmacology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Introduction to pharmacology and toxicology for undergraduate students, emphasizing drug development and mechanisms of action of drugs and toxic agents. Letter grading.

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.

M241. Introduction to Chemical Pharmacology and Toxicology. (5) (Same as Pharmacology M241.) Lecture, six hours. Preparation: organic and biological chemistry. Designed for molecular and medical pharmacology students. Introduction to general principles of pharmacology. Role of chemical properties of drugs in their distribution, metabolism, excretion, and modes of action. S/U or letter grading.

M242. Toxicodynamics. (2) (Same as Environmental Health Sciences M242.) Lecture, one hour; discussion, one hour. Preparation: undergraduate biology and chemistry courses. Requisite: Environmental Health Sciences C240. Examination of recent literature on mechanisms of toxicity or toxicodynamics. Student presentation of papers selected by instructor on various aspects of toxic mechanisms, including free radical mechanisms, mechanisms of cell death, metal toxicity/ion homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways, DNA repair/mutagenesis, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.

M245. Laboratory in Toxicological Methods. (2) (Same as Environmental Health Sciences M245 and Pharmacology M234C.) Lecture, one hour; laboratory, four to five hours. Survey of experimental techniques used in study of toxic substances. Experiments conducted within known toxin to demonstrate its effects at molecular, cellular, and tissue levels. Presentation of principles of techniques and methods of data analysis at discussion session prior to laboratory. Letter grading.

M246. Molecular Toxicology. (4) (Same as Environmental Health Sciences M246.) Lecture, four hours. Enforced requisite: Environmental Health Sciences C240. Fundamental aspects of toxicity required for deep understanding of toxicological processes, with research-oriented outlook. Dissemination of information about important molecular toxicological topics to make students think about them from research perspective. Students learn about cutting-edge research areas of molecular toxicology, how to most optimally extract important information from research papers, how to critique papers, how to formulate alternative hypotheses for data papers, how to formulate ideas for future research, and how to express their ideas effectively in oral settings. Letter grading.

295A-295G. Research Topics in Molecular Toxicology. (2 each) Research group meeting, two hours. Advanced study and analysis of current topics in molecular toxicology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296A. Chemical Toxicology. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296B. Molecular Carcinogenesis. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296C. Teratogenesis. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296D. Molecular Toxins in Boron Biology. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296E. Germ Cell Cytogetic/Genetic Markers. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296F. Genetic Toxicology. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

296G. Laboratory Analysis. (3) Seminar, one hour. Preparations: Biochemistry and Pharmacology. 197. Seminar sessions on various areas of molecular toxicology, with instruction on how to express their ideas effectively in oral settings. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminars 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. (2 to 12) Tutorial, to be arranged. Individual guided studies under direct faculty supervision. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

599. Ph.D. 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.

Scope and Objectives

The Moving Image Archive Studies M.A. is an interdepartmental degree program offered jointly by the Department of Information Studies in the Graduate School of Education and Information Studies and the cinema and media studies faculty of the Department of Film, Television, and Digital Media in the School of Theater, Film, and Television. The program is an intensive, specialized two-year course of study consisting of graduate seminars, directed studies, and an extensive practicum program, as well as special topic screenings, guest lectures, and technical demonstrations. The program is also affiliated with the UCLA Film and Television Archive.

The goal of the program is not merely training, but a broad education grounded in historical, critical, and theoretical study. The subject matter encompasses the aesthetics and history of film and television, the cultural responsibilities of selection and curatorship, access and programming for the public, collection management, cataloging and documentation, and technical aspects of preservation, and restoration. Seminars and practice are taught by a combination of UCLA faculty members, academic scholars, top-level preservationists, and other archive specialists.

The program recognizes that traditional models of archival work have been redefined in recent years to emphasize moving image preservation as an ongoing process of activities along a continuum that includes curatorship, laboratory preservation, storage management, cataloging, and access. The program encourages familiarity with all these closely related archival functions and provides opportunities for specialization within them.

A key goal is to link theory with practice. The program embraces hands-on practice in archives, libraries, studios, and laboratories in the Los Angeles area, as well as nationally and internationally.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in an-
nouncements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Moving Image Archive Studies Program offers the Master of Arts (M.A.) degree in Moving Image Archive Studies.

Moving Image Archive Studies
Graduate Courses

200. Moving Image Archiving: History, Philosophy, Practice. (4) Seminar, four hours. Introduction to historical and technical analysis of archival policies regarding collection development, access, exhibition, cataloging, preservation, and restoration. Introduction to principle archival practices from 1938 establishment of International Federation of Film Archives to the present, addressing practices such as collection development of classical, national, and mainstream materials; small gauge formats, independent and amateur productions, new media; changing role of technology in preservation and restoration; ethics of moving image restoration; cataloging standards and documentation systems; classical and alternative models of archive administration and funding; cultural impact of public programming; research and publication supported by moving image archives; access, education, and archival productions. S/U or letter grading.

210. Moving Image Preservation and Restoration. (8) Seminar, four hours. Critical analysis of distinct models for archival preservation and restoration of moving image media. Examination and evaluation of current preservation standards for storage and duplication. Discussion of critical preservation problems such as nitrate deterioration, color fading, vinegar syndrome, and improved media. Exploration of case studies of specific restoration projects through critical before and after studies, with focus on crucial ethical issues embedded within each technical and aesthetic decision making process. Of special interest is question of whether it is possible and appropriate to speak of particular schools and/or philosophies of restoration. Range of key issues addressed, such as identification of original versus subsequent and multiple versions and theoretical and practical distinctions between different types of restoration. S/U or letter grading.

220. Archaeology of Media. (4) Seminar, four hours. History of moving image technologies. Examination of relationships between technological evolution and forms of moving image expression. Lectures combined with extensive presentations of full range of analog, video, and digital image types to train students to develop discerning eye required for professionals working in 21st-century moving image archive. In addition to study of specific technical developments such as new gauges, formats, color processes, as well as specific cataloging rules established by RIAF for local and national moving image archives. Discussion of important issues of public access, exploring various methods and protocols for making collection-related information available through secondary and nonsystematic channels such as study guides, collection profiles, websites, stand-alone databases, and exhibition catalogs. Letter grading.

240. Archival Administration. (4) Seminar, four hours. Day-to-day administration of moving image archives involves complex set of interrelated activities, including donor relations, deposit agreements, and application of copyright law; collection identification and cataloging; storage, conservation, and preservation of moving image materials; budget planning, fundraising, and grant writing; staff training and supervision; programming, education initiatives, and Internet access. Analysis of interrelationship between administrative policies, budgets, human resources, and overall archival goals. Through discussions with working archival professionals, exploration of these essential tasks with particular attention to rapidly changing paradigms brought about by migration of media into digital realm. S/U or letter grading.

250. Access to Moving Image Collections. (4) Seminar, four hours. Survey and analysis of policies and procedures used to provide access to moving image collections. Identification and exploration, through lecture and discussion, of three distinct modes of public access: traditional access, public exhibition, and proactive access. S/U or letter grading.

286. Special Topics in Moving Image Archive Studies. (2 to 4) Seminar, two to four hours. Variable topics related to scholarship and practice in moving image archive studies. Letter grading.

486. Directed Individual Study or Research. (2 to 6) Tutorial, 12 hours. Hands-on experience at entry professional level in archive, library, information center, or media laboratory supervised by one archivist or other appropriately qualified professional and one program faculty member. S/U grading.

496. Directed Individual Study or Research. (2 to 6) Tutorial, four hours. Study or research in areas or subjects not offered as regular courses. S/U or letter grading.

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Peter R. Golub, Ph.D.
Rakefet R. Hak, M.M.
Benjamin T. Jaber, B.M.
David A. Leaf
James D. Lent, D.M.A.
Rebecca R. Lord, D.M.A.
Daniel F. Marschak, M.A.
James T. Miller
Lou Anne Nell, M.A.
Richard M. O’Neill, M.A.
Jean-Louis Rodrigue
Adam J. Schoenberg, D.M.A.
John A. Steinmetz, M.A.

Adjunct Professors
Christopher Hanulik, B.M.
Jennifer Judkins, Ph.D.
Douglas H. Masek, D.M.A.

Adjunct Associate Professors
Christoph Bull, D.M.A.
Mark C. Carlson, Ph.D.
Peter F. Yates, D.M.A.

Adjunct Assistant Professor
Judith I. Hansen, B.A.

Visiting Professors
Lily Chen-Hartke, Ph.D.
Herbert J. Hancock
Wayne Shorter

Scope and Objectives
The Department of Music provides undergraduate and graduate training in Western classical music, with concentrations in composition, music education, and performance. Jazz performance is also offered at the graduate level. The department is aligned with the Department of Ethnomusicology 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.

The four-year Bachelor of Arts curriculum in Music is a classically oriented, balanced program of practical, theoretical, and historical studies, with related performance and academic studies in non-Western music. The major, designed for students who want to combine fine musicianship with academic excellence, is based on a core curriculum of theory, history, analysis, and individual and group performance. Given in the context of a liberal education, this provides a foundation for an academic or professional career and affords valuable cultural background.

At the graduate level, specialized studies leading to the degrees of Master of Arts and Doctor of Philosophy are offered in composition; specialized studies leading to the degrees of Master of Music and Doctor of Musical Arts are offered in all classical solo instruments, voice, collaborative piano, 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 majors in Music History and Musicology offered through the College of Letters and Science; those interested in a concentration in world music should consider the major in Ethnomusicology offered through the School of the Arts and Architecture.

Undergraduate Study

The Music major is a designated capstone major. Students learn about the real world with respect to putting on concerts. Through preparation for and execution of their senior recitals, students demonstrate a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Music B.A.

Capstone Major

Admission

All applicants for admission and change of major are required to pass an audition in their principal performing medium.

Preparation for the Major

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of Fall Quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M10A, M10B, M10C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a prerequisite to both courses M10A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Required (for all concentrations except music education): Music M10A, M10B, M10C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 65, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. In addition, students are required to take 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.

Music Education: Music M10A, M10B, M10C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 65, and three years (18 units) of performance organizations utilizing students’ major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. In addition, students are required to take 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 (for all concentrations): Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and courses selected from one of the concentrations listed below.

Composition: A minimum of 41 upper division units, including Music 104A or 104B, 106A, 106B, 116, 123A, 123B, 123C, 176, and at least 8 elective units selected from any upper division ethnomusicology, music, or music history courses. A capstone senior recital, to be preceded by one capstone scoring course (Music 124A or 124B) and to include at least 30 minutes of original music, is also required (exceptions by petition only).

Music Education: A minimum of 43 upper division units, including Music 101, 110A through 110D, 114A, 114B, 115A, 115B, 116, 117, 119A, 119B, 119C, and three courses from 160A through 165. During each term in which students take private lessons, they must participate in a performance organization for a letter grade, utilizing their major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member. A capstone senior recital, which may be held as early as Fall Quarter of the junior year, is also required.

Performance: Twelve units in performance instruction from Music 160A through 165 (including junior and senior recital requirements), 4 units of chamber ensembles (Music C175), and 8 elective units selected from any upper division ethnomusicology, music, or music history courses. During each term in which students take private lessons, they must participate in a performance organization for a letter grade, utilizing their major instruments (courses C90A through 90N and C90Q through 90S), as assigned by the chair or designated faculty member.

S/U grading.

Music / 509
more) where creative and cultural implications are ex- plored through analysis and discussion of broad rep- ertoire of musical works spanning historical eras and global cultures. Composition: Practice in construction of short compositions, and short papers dealing with historical and cultural issues required. Letter grading.

15. Art of Listening. (5) Lecture, three hours; discus- sion, one hour. Enforced requisite: course 20A. Study of listening skills through direct interaction with live performance, performers, and composers. Relationship of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic, production and cultural practice. P/NP or letter grading.

16. Hollywood Musical and American Dream. (4) Lecture, three hours; discussion, one hour. Examination of composers, writers, and filmmakers whose creative efforts changed how the world came to view American dream. Full features and music clips illustrate American life as seen through Hollywood musi- cals. P/NP or letter grading.

20A. Music Theory I. (3) Lecture, four hours. Prepa- ration: passing score on departmental examination. Course 20A is enforced requisite to 20B, which is an en- forced requisite to 20C. Students must receive grade of C or better to proceed to next course in sequence. Theory: study through film and description of triads and inversions. P/NP or letter grading.

20B. Music Theory II. (3) Lecture, four hours. En- forced requisite: course 20A with grade of C or better. Theory: diatonic harmony through secondary domi- nants and diminished sevenths; modulations to domi- nant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduc- tion to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (3) Lecture, four hours. En- forced requisite: course 20B with grade of C or better. Theory: chromatic harmony including development of tonality. 18th to 19th century. Analysis and style composition. P/NP or letter grading.

60A-65. Undergraduate Instruction in Perform- ance. (2 each) Studio, one hour. Limited to Music majors (all freshman/sophomore majors, and junior/ senior majors not in performance specialization). Indi- vidual instruction. Students must perform in one practicum during academic year. Grades are assigned by applied instructor in Fall and Winter Quarters and by jury examination in Spring Quarter. May be repeated for credit. P/NP or letter grading. 60A. Violin; 60B. Viola; 60C. Cello; 60D. String Bass; 60E. Harp; 60F. Classical Guitar; 60G. Viola da gamba; 60H. Lute; 61A. Flute; 61B. Oboe; 61C. Clarinet; 61D. Bass- soon; 61E. Saxophone; 62A. Trumpet; 62B. French Horn; 62C. Trombone; 62D. Tuba; 63. Percussion. 64A. Piano; 64B. Organ; 64C. Harpsichord; 65. Voice.

80A. Beginning Voice. Laboratory, five hours; preparation/practice, seven hours. Simple keyboard skills together with basic aspects of music theory and its practical application to keyboard: sight-reading, tonality, chords, scales, cadences, simple composi- tions, and improvisations. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80B. Intermediate Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisite: course 80A. Review of basic keyboard con- cepts, with focus on developing comprehensive key- board musicianship ranging from music theory, sight- reading, exercises, composition, and improvisation. Study of musical terms and notations, chords, scales, cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80F. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tablature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80V. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Voice in- struction for singers at beginning to intermediate level. Exploration of fundamentals of vocal technique, including overview of basics of proper breath control, resonance, care of voice, diction, and interpretation. Beginning vocal repertoire used as vehicle for under- standing these concepts. May be repeated for credit with- standing these concepts. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80W. Woodwind Technique for Beginners. (4) Lab- oratory, six hours; preparation/practice, six hours. Woodwinds emphasis on practice, individual instruction of knowledge of fundamental concepts and techniques of saxophone, clarinet, oboe, bassoon, and flute. Of- fered in summer only. P/NP or letter grading.

M67. Special Courses in Music. (5) (Same as Eth- nomusicology M67 and Music History M67) Lecture, four hours; discussion, four hours. Limited to under- graduate Ethnomusicology, Music, and Music History majors. Study and analysis of current and/or special topics in ethnomusicology, music history, taught by resident and visiting faculty members. May be repeated for credit with topic and instructor change. Letter grading.

C90A. UCLA Chorale. (2) Activity, four hours. Prepa- ration: audition. Select mixed ensemble of 100 voices performing choral music appropriate for concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C482. P/NP or letter grading.

90B. University Chorus. (2) Activity, two hours. Prepara- tion: audition. Mixed chorus of 100 voices performing repertoire from Italian musical works au- tomatic from baroque to present. May be repeated for credit without limitation. P/NP or letter grading.

90C. Chamber Singers. (2) Activity, three hours. Preparation: audition. Select mixed ensemble of 16 to 20 voices performing chamber choral music of all pe- riods, with emphasis on Renaissance and baroque music. May be repeated for credit without limitation. P/NP or letter grading.

90D. Opera Workshop. (2) Activity, six hours. Prepa- ration: audition. Examination of scenes and complete operas, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limita- tion. P/NP or letter grading.

90E. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of sym- phonic literature, as well as orchestral accompani- ments in chamber music of student composers. May be re- peated for credit without limitation. May be concur- rently scheduled with course C481. P/NP or letter grading.

90F. Symphonic Band. (2) Activity, two hours. Prepa- ration: audition. Performance of special events. May be re- peated for credit without limitation. P/NP or letter grading.

C90G. Wood Wind Ensemble. (2) Activity, six hours. Prepa- ration: audition. Group performance of Western vocal and in- strumental music from historical periods prior to 1800. Early instruments may be used at instructor’s discretion. May be repeated for credit without limita- tion. P/NP or letter grading.

Upper Division Courses

100A-100B-100C. Music in American Education. (4-4-4) Lecture, four hours; laboratory, one hour. Re- quired courses 20A, 120A, 120B, 120C. Critical study and analysis of philosophy, his- tory, organization, curriculum, and literature of music programs for elementary and secondary schools in American education. Each course may be taken inde- pendently for credit. Letter grading. 100A. General Music; 100B. Choral Music; 100C. Instrumental Music.

104A. Modal Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In- depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through writing and analysis of important forms of period, including species counterpoint, free counterpoint, point of imitation, motet, ricercare, etc. Letter grading.

104B. Special Topics in Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of polyphonic styles and textures since 1750, with emphasis on late-19th and 20th-century modes of expression, through writing and analysis. Letter grading.

106A. Orchestra I. (4) Discussion, three hours. Requisites: courses 120C (accelerated section), 123C. Ranges and characteristics of instruments, with exer- cises in scoring. P/NP or letter grading.

106B. Orchestra II. (4) Discussion, three hours. Requisites: courses 106A, 120C (accelerated sec- tion), 123C. Scoring and analysis for ensembles and full orchestra. P/NP or letter grading.

110A. Learning Approaches in Music Education. (4) (Formerly numbered 110.) Lecture, two hours; ac- tivity, two hours; outside study, eight hours. Enforced requisite: course 20A. Introduction to music educa- tion by development of concepts, attitudes, and skills necessary to teach music and philosophical, histor- ical, cultural, and psychological foundations of music education. Emphasis on learning theories and psychology of music learning. Contextualization of concepts by engaging in nonnontational modes of music learning, including systematic aural transmis- sion and informal learning. Letter grading.
101B. Musicality and Creativity in Childhood. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Enforced requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Preparation of music education students for teaching music at preschool and elementary school levels. Development of understanding of developmental characteristics, diverse cultural learning needs of children and design of effective instructional strategies that are age-appropriate and responsive to students' background. Focus on student-centered curriculum where students are active learners and teachers are facilitators to become proficient in providing children with music learning environment that is conducive to optimal growth in their musicality and creativity. Letter grading.

110C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced requisites: courses 20A, 20B, 20C, 110A, 110C, 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 responsive to students' background. Diverse practices and learning processes of American and world music would serve as basis of comparative study, with emphasis on comprehensive music education through performance. 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, curriculum, and literature of music programs for elementary and secondary instrumental music instruction in traditional and non-traditional settings. Development of strategies and techniques to teach music in group settings. Letter grading.

111A. Technology in Music Education I. (1) Laboratory, three hours. Requisite or corequisite: course 20A. Provides music educators with tools and knowledge necessary to use appropriate computer hardware and software for purposes of music sequencing, arranging, and scoring, with emphasis on applications that are appropriate for use in public and/or private schools for levels K-12 and higher education. Activities include familiarization with computer systems and software, computer-assisted music notation and publication, development of digital music sequencing techniques. Letter grading.

111B. Technology in Music Education II. (1) Laboratory, three hours. Requisite: course 111A. Introduction to instructional uses of computers in music classrooms, with emphasis on practical information necessary to intelligently purchase and implement microcomputers in schools, including training in arranging, multimedia production, and classroom instruction techniques. Additional topics include teacher-based administrative functions (grading, communications, research, databases, financial management). Letter grading.

112. Guided Field Experiences in Music Education. (1) Field studies, three hours. Initial field experiences for students preparing to teach and earn single subject certification in music. Novice teachers work under direct guidance of UCLA music education faculty members and practicing public school teachers to develop and deliver instruction in K-12 settings. P/NP grading.


115A-115B. Study of Instrumental Techniques. (2-6) Studio, four hours; outside study, two hours. Applied studies in basic performance techniques and tutorial materials designed to give students knowledge to teach basic instrumental concepts. Letter grading. 115A. Woodwinds; 115B. Brass.

116. Introduction to Conducting. (2) Lecture, three hours; discussion, one hour; outside study, five hours. Requisite: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting gestures, focus on score study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire. Letter grading.

118A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, 118A, 120A. Vocal and choral pedagogy, vocalizing and warm-up techniques, choral form and audition techniques. May be repeated once for credit. Concurrently scheduled with course 212B. P/NP or letter grading.

118B. Choral Conducting Techniques. (2) (Formerly numbered 118B.) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, 118A. Vocal and choral pedagogy, vocalizing and warm-up techniques, choral form and audition techniques. May be repeated once for credit. Concurrently scheduled with course 212B. P/NP or letter grading.

119A. Vocal Techniques for Music Education. (3) (Formerly numbered 119.) Lecture, two hours; activity, two hours; outside study, five hours. Introduction to art of teaching voice, including anatomy of singing instrument, biomechanics of singing, diagnosis and correction of faults, health and care of voice, and instruction techniques. Application of vocal techniques to choral music teaching at middle and high school levels. Letter grading.

119B. Western and World Percussion Pedagogy. (3) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 20A, 20B, 20C, 110A. Applied studies in basic performance techniques and tutorial materials designed to give music education students knowledge to teach essential instrumental concepts. Topics include snare drum technique, mallets, timpani, accessories, percussion ensembles, introduction to drum set and world percussion. Letter grading.

119C. Jazz and Music Pedagogy. (3) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Foundations for teaching jazz by development of curricular development, 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: pass on score dictation examination and performance. Requisite: course 20C 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. Musicianship: sight-singing of extended chromatic melodies; advanced harmonic dictation (diatonic and chromatic); keyboard harmonization; rhythm, meter, and subdivision; elementary score reading. P/NP or letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours; Requisite: course 120A with grade of C (2.0) or better. Theory: advanced chromatic harmony including development of harmony from 1850; analytical projects; style composition; Musicianship: advanced score reading; advanced harmonic dictation; preparation for departmental examination. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours; listening, two hours. Requisite: course 120B with grade of C (2.0) or better. 20th-century harmonic language, including non-functional harmony, polytonality, free atonality, serialism, and minimalism. P/NP or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, four hours; discussion, one hour. Requisites: courses 106B, 120A, 120B, 120C, 120D. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. P/NP or letter grading.


123A-123B-123C. Composition, (4-4-4) Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Course 123A is requisite to 123B, which is requisite to 123C. Designed for composition students. Vocal and instrumental composition in smaller forms, including style composition and 20th-century techniques. Each course may be repeated once for credit, but first year must be taken in sequence. P/NP or letter grading.


124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for wind ensembles. Preparation and production of score and parts. May include percussion. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

124C. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: 106B, 120C (accelerated section), 123C. Practical applications in scoring and arranging for choral ensembles, including a cappella as well as choral with instruments. Preparation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

131. Development of Latin Jazz. (4) (Same as Ethnomusicology 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.

134. Introduction to Armenian Music. (4) (Same as Armenian M134 and Ethnomusicology M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Introduction to history, tradition, and 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.

136A-136B-136C. Historical Survey of Music Theater. (4-4-4) Lecture, four hours; discussion, one hour. Historical survey of major works from music theater, tracing development of art form from its European beginning to American music theater of today. P/NP or letter grading. 136A. Early Forms to 1900; 136B. 1900 to 1945; 136C. 1945 to 1975. 140A-140B-140C. History and Analysis of Western Music. (4) Lecture, three hours. Requisites: 110C. Survey of Western music; examination of representative compositions within their cultural contexts and development of analytical methods appropriate to music of each period. Letter grading. Enforced requisite: course M10C or M87. Students must receive grade of C or better to proceed to next course in sequence. 140B, 1700 to 1890. Enforced requisite:
Course 140A with grade of C or better. 140C. 1890 to Present. Enforced requisite: course 140B with grade of C or better.

C150. Keyboard Skills for Pianists. (2) Activity; two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transposition, memorization, recital preparation, score reduction, and ensemble issues. Concurrently scheduled with course C450. 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, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.

C158. Vocal Repertoire Interpretation. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaboration for performances on piano and vocalists. Activities include text and score preparation, diction, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Intensive diction study incorporated. Regular coaching with faculty members, weekly performance class, and rehearsals. Concurrently scheduled with course C458. P/NP or letter grading.

160A-165. Undergraduate Instruction in Performance for Performance Specialist. (2 each) Studio, one hour. Limited to junior/senior music majors who have been selected by audition into performance specialization. Individual instruction. Students must perform in noon concert once during their junior year and must present full recital in their senior year. Grades are assigned by applied instructor. Fall and Winter Quarters and by jury examination in Spring Quarter. May be repeated for credit. P/NP or letter grading. 160A. Violin; 160B. Viola; 160C. Cello; 160D. String Bass; 160E. Harp; 160F. Classical Guitar; 160G. Guitar da gamba; 160K. Lute; 161A. Flute; 161B. Oboe; 161C. Clarinet; 161D. Bassoon; 161E. Saxophone; 162A. Trumpet; 162B. French Horn; 162C. Trombone; 162D. Tubas; 163. Percussion, imm; 164A. Piano; 164B. Organ; 164C. Harpsichord; 165. Voice.

C167. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Enforced corequisite: one course from 64A, 64B, 64C, 164A, 164B, or 164C. In-depth study of keyboard literature, focusing on concentrating on problems of performance through analysis, historical and comparative studies, and actual performance by participants. May be concurrently scheduled with course C267. P/NP or letter grading.

170. Senior Seminar: Music Curriculum Design and Evaluation. (2) Seminar, two hours; outside study, four hours. Enforced requisites: courses 110A through 110D. Capstone academic course for music education students, with emphasis on synthesizing philosophical, historical, cultural, and psychological foundations of music education in preparation for entry into the profession as music educators. Exploration of effective approaches to designing curriculum and evaluating student learning. Letter grading.

174. Vocal Diction. (2) Lecture; two hours; outside study, four hours. Designed for Music majors. Sounds of language as applied to singing, including use of International Phonetic Alphabet, translation of art song texts, and application to student's current vocal repertoire. Background in each language encouraged. P/NP or letter grading.

C175. Chamber Ensembles. (2) Activity, 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. Students may enroll in two sections per term; total of 12 units may be applied toward degree requirements. May be concurrently scheduled with course C485. P/NP or letter grading.

176. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours. Preparation: advanced experience and accomplishment in serious composition (art music), two years of music theory, limitation of 10 concurrent enrollments. Experiments in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C225. P/NP or letter grading.

177. Gluck Chamber Ensembles. (2) Studio, two hours. Preparation: audition. Advanced chamber ensembles who, after rehearsing and being coached on core aspects of repertoire, play in outreach settings around Los Angeles community. May be repeated for credit without limitation. Concurrently scheduled with course C477. P/NP grading.

CM182. Music Industry. (4) (Same as Ethnomusicology CM182, Music History CM186, and Music Industry M182.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History majors. Examination of music industry as an industry and its place in culture. May be repeated for credit. Concurrently scheduled with course C226. P/NP or letter grading.

188. Special Courses in Music. (4) Lecture, three hours; outside study, nine hours. Special topics in music for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising faculty member. May be repeated for credit. P/NP or letter grading.


201. Repertory and Analysis. (2) Same as Musicology M201. Seminar, two hours. Requisite or corequisite: Musicology 200A. Exploration of defined repertory through works of selected composers. May be repeated for credit. S/U grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches required for professional performers, including phrase structure, harmonic rhythm and prolongation, small and large forms, theories of musical coherence, and understanding of styles. Letter grading.

203. Notation and Performance. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music students. Survey analysis of evidence performers use to make their interpretive decisions in performance of works in the modern and Baroque eras. 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 for performing musicians. Letter grading.

C218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C118A. Letter grading.

C218B. Choral Techniques and Methods. (2) Lecture, three hours; 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.

C222. Speculative Music Theory. (4) Discussion, three hours. Designed for graduate music students. Techniques of tonal coherence studied through analysis and compositional exercises. May be repeated once for credit. May be concurrently scheduled with course 122. S/U or letter grading.

C225. Historical and Philosophical Foundations of Music Education. (4) Lecture, three hours; preparation, two hours. Designed for graduate students. Development of music education in U.S. according to established schools of thought. May be concurrently scheduled with course C118S. Additional assignments, as well as evidence of greater depth of study, required of graduate students. S/U or letter grading.

C226. Electronic Music Composition. (4) Lecture, three hours; laboratory; three hours; preparation. Advanced experience and accomplishment in serious composition (art music), two years of music theory. Designed for graduate students. Limited enrollment. Experiences in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (ProTools), and final project. May be concurrently scheduled with course C176. S/U or letter grading.


252. Seminar: Composition. (4) Seminar, three hours. Compositional projects for varying acoustic instruments or vocal ensembles. Students expected to perform their compositions from sketches at piano or present notation files of work-in-progress with playback file, where appropriate. Performance of completed works in graduate composition concerts by UCLA student performers. S/U or letter grading.


254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Designed to provide graduate composition students with in-depth exposure to core concepts of rich works of the music of the dawn of baroque era. Exploration of analytical techniques and methods not commonly used in analysis of works of tonal and post-tonal periods, and approaches to musical structures used by composers before modern tonal harmonic syntax had fully developed. Letter grading.

255. Advanced Music Analysis: Tonal Music. (4) Seminar, three hours. Discussion of theoretic approaches to and analyses of selected works of 20th or 21st century.
Analysis of assigned pieces using various theoretic approaches discussed and presentation of analyses in class. Letter grading.

260A. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Practical experience in composing for commercial movies. Difference between underscore and soundtrack music and discussion of surrealistic effect when they merge, as in MTV, dream sequences, or montages. Study of three principal areas of filmmaking—preproduction, production (shooting), and postproduction. Composites from classic movies and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Separate cues involve dialogue, melanoma, comedy, chase, memory montage, and tension. Letter grading.

260B. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Focus on task of completing 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 creating a MUSCRIPT for picture, designed to approximate actual conditions of completing professional Hollywood assignment, from spotting to scoring. Letter grading.

261A. Seminar: Performance in Professional Practices. (4 each) Seminar, three hours; outside study, nine hours. Limited to graduate performance students. Investigation of primary source readings in performance practices as related to period; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading. 261A. Medieval; 261B. Renaissance; 261C. Baroque; 261D. Classical; 261E. Romantic; 261F. Contemporary; 261J. Jazz.

262. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Enforced corequisite: course 264A or 264B or 264C. 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 concurrently scheduled with course C167. S/U or letter grading.

270A-270G. Seminars: Music Education. (6 each) Seminar, three hours. May be repeated for credit without limitation. S/U or letter grading. 270A. History; 270B. Non-Western Musics; 270C. Curriculum Innovations; 270D. Tests and Measurements; 270E. Choral Literature; 270F. Instrumental Literature; 270G. General Topics.

CM282. Music Industry. (4) Same as Ethnomusicology CM288 and Musicology CM288.) Lecture, four hours: discussion, one hour; outside study, seven hours. Course related to Ethnomusicology, Musicology 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.

290. Composition Forum. (2) Seminar, two hours. Weekly forum to present professional composers of range of mediums, including large ensemble vocal and/or instrumental works, chamber music, electronic music, and film/television, as guest lecturers. Letter grading.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes of this approach to music instruction for children. Offered in summer only. S/U or letter grading.

S331A-S331B-S331C. Orff Schulwerk Training Courses. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Requisite: course 330. Course S331A is requisite to S331B, which is requisite to S331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete each course are eligible for certification at that level through American Orff Schulwerk Association. Offered in summer only. S/U or letter grading. S331A. Level I (Beginning); S331B. Level II (Intermediate); S331C. Level III (Advanced).

S341. Conducting for High School and College Bands and Ensembles. (2) Lecture, 25 hours. Comprehensive view of current trends in band/wind ensemble programs, including nonverbal communication, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of administration of band/wind ensemble programs. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S342. Contemporary Marching Band. (1) Lecture, 12 hours. Innovative approaches to marching band and percussion, including creative approaches to charging and drill design and use of microcomputers. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S343. Effective and Creative String Teaching. (2) Lecture, 24 hours. Comprehensive course for teachers of string classes and string orchestras at elementary, junior high, and high school levels. Topics include development of instructional techniques for violin, viola, cello, and bass; critical examination of current pedagogical materials; and reading sessions of recently published music for string orchestra. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S345. Symposium on Art of Choral Music. (2) Lecture, 25 hours. Symposium for college, high school, and junior high school choral directors on development of practical techniques for solving real challenges in choral conducting and teaching. Topics include innovative choral methods, choral conducting, vocal pedagogy, voice classification, and survey of standard and current choral literature. Offered in summer only. S/U or letter grading.

S350A. Introduction to Computer-Assisted Instruction and Laboratory, 2 hours; laboratory, two hours. Introduction to use of computer resources in music classroom, with emphasis on practical information necessary 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 grading.

S350B. Exploration of MIDI Computer Resources: Keyboards and Synthesizers. (2) Lecture, two hours; laboratory, three hours. Creative use of MIDI-based synthesizers under computer control. Exploration of available software on development and use of various software sequencing packages. Use of software for computer-based music printing. Hands-on experience. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

S371. Marching Band in Secondary Education. (2) Lecture, two hours. Study of contemporary marching band as component of music curriculum in secondary education, including current approaches, practices, and problems associated with marching bands, as well as historical perspective. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. 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.

410. Wind Music Forum. (4) Seminar/laboratory, two hours. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and performance of premiere work especially composed for graduate performer or performers by graduate composer at UCLA. Letter grading.

C450. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transposition, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. Letter grading.

C455. 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 rehearsing, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Regular coaching with faculty members, weekly performance workshops. Concurrently scheduled with course C155. Letter grading.

C458. Vocal Repertoire 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 text and score preparation, dic tion, weekly rehearsals, regular coaching, and perfor mance of vocal literature, master classes, and auditions, and other related activities. Intensive dic tion study incorporated. Regular coaching with faculty members, weekly performance class, and rehearsals. Concurrently scheduled with course C158. Letter grading.

460A-466. Graduate Instruction in Performance. (6 each) Studio, one hour; performance laboratory/outside study, 17 hours. Limited to graduate performance students. Individual instruction in one hour; intensive study and preparation of musical literature in area of specialization. May be repeated for credit. Letter grading. 460A. Violin; 460B. Viola; 460C. Cello; 460D. String Bass; 460E. Classical Guitar; 460F. Viola da gamba; 460K. Lute; 461A. Flute; 461B. Oboe; 461C. Clarinet; 461D. Bassoon; 461E. Saxophone; 462A. Trumpet; 462B. French Horn; 462C. Trombone; 462D. Tuba; 463. Percussion; 464A. Piano; 464B. Organ; 464C. Harpsichord; 464D. Forte piano; 465. Voice; 466. Jazz.

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 interpretation. Individualized study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student's primary instrument. Letter grading.

470. Opera Studio for Graduate Students. (4) Laboratory, six hours. Designed for graduate students. Performance techniques and repertoire for graduate students in opera. S/U grading.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of teaching techniques for voice, including thorough investigation of vocal mechanisms 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.

C477. Gluck Chamber Ensembles. (2) Studio, two hours. Preparation and audition. Advanced chamber ensembles who, after rehearsing and being coached on core amount of repertoire, play in outreach settings around Los Angeles community. May be repeated for credit without limitation. Concurrently scheduled with course C177. S/U grading.

C480. UCLA Chorale. (2) Activity, four hours. Preparation; audition. Designed for M.M. and D.M.A. students. Select mixed ensemble of 100 voices performing choral music appropriate for concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C90A. Letter grading.

C481. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of symphonic literature, as well as orchestral accommodation for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C90E. Letter grading.


C484. Piano/Keyboard Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C90Q. Letter grading.

C485. Chamber Ensembles. (2) Activity, 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. Students may enroll in two sections per term; total of 12 units may be applied toward degree requirements. May be concurrently scheduled with course C175. 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 M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

596C. Directed Individual Studies in Music Education. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward M.A. or M.M. 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 M.A. or M.M. degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4 Tutorial, to be arranged. S/U grading.

598. Guidance of M.A. 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 Ph.D. or D.M.A. Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599A. Theory Tutorial. To be arranged. May be repeated for credit. S/U grading.

MUSIC INDUSTRY

Interdisciplinary Minor

School of the Arts and Architecture

UCLA

2200 Broad Art Center Box 951620 Los Angeles, CA 90095-1620 (310) 206-3564 fax: (310) 825-7917 e-mail: students@arts.ucla.edu http://www.schoolofmusic.ucla.edu/music-industry-and-technology-at-ucla

Robert W. Fink, Ph.D., Chair

Faculty Committee

Paul S. Chihara, Ph.D. (Music)
Nina S. Eidsheim, Ph.D. (Musicology)
Robert W. Fink, Ph.D. (Musicology)
Juliana K. Gondek, M.M. (Music)
Roger A. Kendall, Ph.D. (Ethnomusicology)
Steven J. Loza, Ph.D. (Ethnomusicology)
James W. Newton, B.M. (Ethnomusicology)

Scope and Objectives

The Music Industry minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to a critical perspective on the formative effects of the music industry and music technology has had on musical practices around the world, (2) prepare students for employment in the music industry, including marketing and sales, recording production, intellectual property, sound recording, and arranging, and (3) contribute to improved communication and interaction between the University, the music industry, and the musical life of Los Angeles.

Undergraduate Study

Music Industry Minor

The Music Industry minor is intended to supplement the education of undergraduate students majoring in Ethnomusicology, Music, and Music History. To apply to the minor, transfer students must have completed a minimum of one term of residency at UCLA and students admitted as freshman 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.

Required Upper Division Courses (28 units):

Music Industry 101, 195, three courses selected from one of the three clusters listed below, and two additional courses selected from one of the clusters listed below.

General Music Industry Cluster: See the minor adviser for an approved list of courses.


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 195 (mandatory P/NP grading), each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Music Industry

Upper Division Courses

101. Seminar: Music Industry, Technology, and Science. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry minors. Introduction to intellectual and theoretical frameworks that form Music industry minor and that scholars of music and music industries have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, 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. Internet Marketing and Branding for Musicians. (4) Seminar, four hours; outside study, eight hours. Digital world for musicians has changed dramatically. Musicians not only have ability to self-market and create communities directly with listeners, but also can thrive in online communities with influencers and other musicians around world. Digital has transformed not just way musicians get word out, but also how they create. Internet marketing has morphed into Internet community crowdsourcing—very different world for musicians and musical organizations. Study driven by project-based work of current online environments for musicians, organizations, and venues. Students dive into best practices 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.

103. Music and Brain. [Seminar, four hours; outside study, eight 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 how brain works. Focus on specific themes such as harmony perception, rhythm perception, emotion and meaning in music, and brain creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of research topics in cognitive neuroscience, one of three main subdisciplines of neuroscience; introduction to fundamental principles in neurophysiology, psychophysiology, and neuroanatomy, whose basic forms foundation for brain imaging, forensic practice, social psychology research, and marketing research; and specific knowledge about brain mechanisms mediating music-related cognitive and emotional functions. Letter grading.]

104. Music and Law. [Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to entertainment business, with special attention to music and its use in film, television, and new media. Legal relationships in entertainment business necessitate knowledge of legal aspects of process of producing works in entertainment field, from acquisition of rights and talent through production and distribution. Letter grading.]

105. Songwriters on Songwriting. [Lecture, three hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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. Letter grading.]

106. Starmod Strategies for Musicians. [Lecture, four hours; outside study, eight hours. Help for students to determine what music career best serves their own lives and gives them tools that help them be successful in their lives and careers. Guest speakers, including top music agents, managers, publicists, and performers, to be featured. Letter grading.]

107. Audio Technology for Musicians. [Studio, four hours; outside study, eight hours. Limited to Ethnomusicology, Music, and Music History majors. Equally for singers using microphones or beat makers using samplers, electronic equipment and procedures permeate music making, and ability to understand their logic is key for any musician today. Practical technical aspects and procedures of equipment and software (sequencers, recorders, mixers, microphones, and so on) most commonly used in contemporary music making. Main sound processing types (equalizers, compressors, reverberation). Fundamental aspects of most widespread music production software and hardware. P/NP or letter grading.]

108. Founding and Sustaining Performing Arts Organizations. [Seminar, four hours. Examination of process of founding performing arts organizations, beginning with inspiration to do so, clarifying organization mission, and mechanics of becoming nonprofit corporations; issues of funding, press relations, choosing appropriate venues, developing audience; mechanics, legal and routine, of running arts businesses; establishing relationships with other organizations in field; issues of making and distributing recordings. Students create a paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.]

109. Docs that Rock, Docs that Matter. [Seminar, three hours. Close look at various genres of rock documentaries and goals, methods, and challenges inherent in making them, with awareness of documentary writing/direct. What makes for successful (or unsuccessful) documentary? Viewed through very specific focus of story and storytelling. P/NP or letter grading.]

110. Music Business Now. [Seminar, three hours. Hands-on introduction to business of music, with emphasis on marketing and media. P/NP or letter grading.]

111. Musicianship through Repertoire in Studio. [Studio, three hours. Performance-based introduction to popular music styles, forms, and competencies through immersion in studio techniques. P/NP or letter grading.]

M182. Music Industry. [Same as Ethnomusicology CM182, Music CM182, and Music History CM186.] Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Music History 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. Letter grading.

188. Special Courses in Music Industry. [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.]

195. Community or Corporate Internships in Music Industry and Technology. [Tutorial, eight hours. Limited to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.]

197. Individual Studies in Music Industry and Technology. [Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Individual intensive study in music industry and technology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in research project/paper required. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.]

Musicology

College of Letters and Science

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Robert W. Fink, Ph.D., Chair

Professors
Robert W. Fink, Ph.D.
Mark L. Kligman, Ph.D. (Mickey Katz Endowed Professor of Jewish Music)
Raymond L. Knapp, Ph.D.
Elizabeth C. Le Guin, Ph.D.
Tamarah J.M. Levitz, Ph.D.
David W. MacFadyen, Ph.D.
Timothy D. Taylor, Ph.D.

Professors Emeriti
Murray C. Bradshaw, Ph.D.
Malcolm S. Cole, Ph.D.
Frank A. D’Acone, Ph.D.
Marie Louise Gollner, Ph.D.
Richard A. Hudson, Ph.D.

Associate Professors
Olivia A. Bloechl, Ph.D.
Mitchell B. Morris, Ph.D.
Elizabeth Randell Upton, Ph.D.

Assistant Professors
Nina S. Eidsheim, Ph.D.
Jessica A. Schwartz, Ph.D.

Scope and Objectives

The Department of Musicology provides students with a broad understanding of the history and culture of music. 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 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.

Music history appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. The undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

The graduate program offers courses leading to the M.A. and Ph.D. 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 provides teaching and research assistantships each year for qualified students.

Undergraduate Study

The Music History major is a designated capstone major. Undergraduate students who are not pursuing departmental honors 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 and musical scores, and have a working knowledge of scholarly discourse relative to a specialized topic. Students present their work to other students and discuss and critique the work of their peers.

Music History B.A.

Capstone Major

Admission

The Music History program assumes that students have some musical background before entering UCLA. Although auditions are not required, prospective majors should be sufficiently competent on an instrument or in voice
to participate in a performance group, as required by the program.

Preparation for the Major


Transfer Students

Transfer applicants to the Music History major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Music History 12W at UCLA. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tchr mt.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Music History 125A through 125F, 187; one course from 160 through 185 or from 191A through 191P; one additional 4- to 5-unit upper division elective course in ethnomusicology, music, or music history (enrollment may be limited; check with the department or instructor); and one capstone research colloquium (course 190) and one capstone seminar (course 191T). Students may enroll in lessons from the Music Department, if instructors are available. Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Honors Program

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

All junior and senior Music History majors who have completed a minimum of four upper division music history courses with a departmental grade-point average of 3.7 or better and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during Fall Quarter of the senior year.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.9 or better in upper division courses in the department and an overall GPA of 3.65 or better, and (3) complete at least one term of Music History 198 (2 units) with a grade of A or better on the resulting thesis.

To qualify for graduation with departmental highest honors, students must (1) complete all

Music History Minor

The Music History 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.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition with the department in 2443 Schoenberg Music Building. For further information, contact the department at (310) 206-5187.

Required Lower Division Courses (10 units): Two music history courses with grades of C or better.

Required Upper Division Courses (21 to 25 units): One course from Music History 160 through 185, one additional upper division music history course, and three additional upper division ethnomusicology, music, or music history courses (minimum 12 units). 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Musicology offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Musicology.

Music History

Lower Division Courses

3. Introduction to Classical Music. (5) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.

5. History of Rock and Roll. (5) Lecture, four hours; discussion, one hour. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origin to present. Emphasis on how

this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Credit for both courses 5 and 185 not allowed. Letter grading.

7. Film and Music. (5) Lecture, four hours; discussion, one hour. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual image. Credit for both courses 7 and 177 is not allowed. P/NP or letter grading.


9. American Popular Song. (5) Lecture, four hours; discussion, one hour. American popular music before advent of rock and roll in 1950s, with special emphasis on song tradition of Tin Pan Alley. P/NP or letter grading.

M10A-M10B-M10C. Introduction to Music History: Music, Culture, Creativity. (4-4-4) (Formerly numbered 10A-10B-10C.) Same as Ethnomusicology M74A-M74B-M74C and Music M10A-M10B-M10C.) Lecture, two hours; laboratory, four hours. Preparation/placement examination. Course M10A is enforced requisite to M10B, which is enforced requisite to M10C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to study of music from three complimentary perspectives: its history, relation to culture, and creative structuring. Lectures from musicologists, ethnomusicologists, and composers/theorists combined with small sections in which students develop wide range of musicianship skills. Organized around broad ideas (performance, contemporaneity, time, place, and more) where creative and cultural implications are explored through analysis and discussion of broad repertoire of musical works spanning historical eras and global cultures. Compositional exercises, production of short compositions, and short papers dealing with historical and cultural issues required. Letter grading.

12W. Writing about Music. (5) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 58. 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.


35. Introduction to Opera. (5) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florentine Camerata in Italy in early 17th century, through 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, staging, hermeneutics of opera, and musical style, with focus on learning appreciation of music of opera within rich context of its compelling history. P/NP or letter grading.

60. American Music. (5) Lecture, four hours; discussion, 50 minutes. Survey of American musical in 20th century, beginning with its roots in operetta, vaudeville, and Gilbert and Sullivan, and focusing on its connections to politics, technology, film, opera, and variety of popular musical styles, including Tin Pan Alley, jazz, and rock. Credit for both courses 60 and 160 is not allowed. P/NP or letter grading.

61. Music in Los Angeles. (5) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to greater emphasis on music in 20th
century, with special focus on European émigrés, interment and postwar history of Japanese American community, Chicano and Mexican American music to present. Figurative and traditions include jazz on Central Avenue, 1960s Laurel Canyon and rock scene, and more recent history that includes developments in punk and hip-hop. P/NP or letter grading.

62. Bach. (5) 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 both his age and our own. Credit for both courses 62 and 162 is not allowed. P/NP or letter grading.

63. Bach. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Johann Sebastian Bach. Credit for both courses 63 and 163 is not allowed. P/NP or letter grading.

64. Motown and Soul: African American Popular Music of 1960s. (5) Lecture, four hours; discussion, one hour. Survey of developments in post-World War II African American popular music. Speculation to musical achievements of Motown Records, Stax, and other rhythm and blues, funk, and soul music centers of production. Relationships between music and politics. Credit for both courses 64 and 164 is not allowed. P/NP or letter grading.

65. Blues in American Music. (5) Lecture, four hours; discussion, one hour. History of blues, both as specific genre and as range of techniques and approaches that have been at center of American music and culture, from 19th-century roots to present. Exploration of commonly accepted blues mainstream, from figures like Bessie Smith, Robert Johnson, and B.B. King, but also central role blues has played in jazz, folk, country, gospel, rock, soul, and rap. While following evolution of music through 20th century, examination of how blues has served as metaphor for African American culture as it permeates American traditions. Credit for both courses 65 and 165 is not allowed. P/NP or letter grading.

66. Getting Medieval. (5) Lecture, four hours; discussion, one hour. Examination of life and music of Beethoven within social and historical context of 1960s. Credit for both courses 66 and 166 is not allowed. Letter grading.

67. Beatles. (5) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, and how they live, as well as who they are as individuals. Hearing is shared perceptive faculty and metaphor for African American culture as it permeates African American experience as mediated through groove-based music. Credit for both courses 67 and 167 is not allowed. P/NP or letter grading.

68. History of Jazz. (5) Lecture, four hours; discussion, one hour. Study and analysis of contemporary music production. P/NP or letter grading.

69. Special Courses in Music. (5) Same as Ethnomusicology M87, M10A, and M10B. Seminar, 90 minutes. Enforced corequisite: attendance, but not enrollment, in course 69 lecture. Intensive discussion of selected topics by Mozart and of certain topics important to fuller understanding of his contributions to musical culture of Enlightenment, as well as to contemporary culture. Credit for both courses 69 and 169 is not allowed. Letter grading.

70. Beethoven. (5) Lecture, four hours; discussion, one hour. History of music and culture of Western music from Wagner to video games. Music covered includes film scores, opera, Gregorian chant, early music revival, folk songs, progressive rock, and more. Credit for both courses 70 and 160 is not allowed. Letter grading.

71. Listening. (5) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, with focus on 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/NP or letter grading.

72. Sacred Music. (5) Lecture, four hours; discussion, one hour. Study of compositions and liturgies of Western church music. Credit for both courses 72 and 172 is not allowed. P/NP or letter grading.

73. History of Jazz. (5) Lecture, four hours; discussion, one hour. History and analysis of variety of jazz styles, from late 19th-century forerunners to present, with emphasis on social meanings of musical practices. Letter grading.

74. Dancehall, Rap, Reggae: Beats, Rhymes, and Routes in African Diaspora. (5) Lecture, four hours; discussion, one hour. Survey of histories of three contemporary music genres: Jamaican dancehall, U.S. rap, and Puerto Rican/Panamanian reggaeton. Introduction to major performers in each genre, comparison of stylistic traits associated with each, and exploration of technologies associated with contemporary music production. P/NP or letter grading.

75. History of Jazz. (5) Lecture, four hours; discussion, one hour. Analysis of jazz genres 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, from figures like Bessie Smith, Robert Johnson, and B.B. King, but also central role blues has played in jazz, folk, country, gospel, rock, soul, and rap. While following evolution of music through 20th century, examination of how blues has served as metaphor for African American culture as it permeates African American experience as mediated through groove-based music. Credit for both courses 75 and 175 is not allowed. P/NP or letter grading.

76. Motown and Soul: African American Popular Music of 1960s. (5) Lecture, four hours; discussion, one hour. Survey of developments in post-World War II African American popular music. Speculation to musical achievements of Motown Records, Stax, and other rhythm and blues, funk, and soul music centers of production. Relationships between music and politics. Credit for both courses 76 and 176 is not allowed. P/NP or letter grading.

77. Beatles. (5) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, and how they live, as well as who they are as individuals. Hearing is shared perceptive faculty and metaphor for African American culture as it permeates African American experience as mediated through groove-based music. Credit for both courses 77 and 177 is not allowed. P/NP or letter grading.

78. History of Jazz. (5) Lecture, four hours; discussion, one hour. Analysis of jazz genres 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, from figures like Bessie Smith, Robert Johnson, and B.B. King, but also central role blues has played in jazz, folk, country, gospel, rock, soul, and rap. While following evolution of music through 20th century, examination of how blues has served as metaphor for African American culture as it permeates African American traditions. Credit for both courses 78 and 178 is not allowed. P/NP or letter grading.

79. Dancehall, Rap, Reggae: Beats, Rhymes, and Routes in African Diaspora. (5) Lecture, four hours; discussion, one hour. Survey of histories of three contemporary music genres: Jamaican dancehall, U.S. rap, and Puerto Rican/Panamanian reggaeton. Introduction to major performers in each genre, comparison of stylistic traits associated with each, and exploration of technologies associated with contemporary music production. P/NP or letter grading.

80. Sophomore Seminars: Music History. (2) Seminar, two hours. Designed for sophomore Music History majors or students interested in pursuing Music History major. Introduction to music history as academic discipline, with particular emphasis on musicology at UCSC and beyond 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 interdisciplinarity. Letter grading.

81. History of Jazz. (5) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, and how they live, as well as who they are as individuals. Hearing is shared perceptive faculty and metaphor for African American culture as it permeates African American experience as mediated through groove-based music. Credit for both courses 81 and 181 is not allowed. Letter grading.

82. Selected Topics in Music of Mozart. (5) Seminar, two hours. Preparation: ability to read music and engage with musicological, historical, and analytical literature. Enforced corequisite: attendance, but not enrollment, in course 62 lecture. Intensive discussion of selected pieces by Mozart and of certain topics important to fuller understanding of his contributions to musical culture of Enlightenment, as well as to contemporary culture. Credit for both courses 82 and 182 is not allowed. Letter grading.

83. Bach: Study of Selected Works. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 63 lecture. Exploration of connections and disconnects between American musical on stage and American film music, and larger dimensions of African American experience as mediated through groove-based music. Credit for both courses 83 and 183 is not allowed. Letter grading.

84. Selected Topics in African American Popular Music of 1960s. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 64 lecture. Intensive discussion of selected pieces by Motown Records, Stax, 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 84 and 184 is not allowed. Letter grading.

85. Blues in American Music. (5) Seminar, nine minutes. Enforced corequisite: attendance, but not enrollment, in course 65 lecture. Exploration of connections and disconnects between American musical on stage and American film music, and larger dimensions of African American experience as mediated through groove-based music. Credit for both courses 85 and 185 is not allowed. Letter grading.

86. Selected Topics in African American Popular Music of 1960s. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Intensive discussion of selected pieces by Motown Records, Stax, 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 86 and 186 is not allowed. Letter grading.


88. Blues in American Music. (5) Seminar, nine minutes. Enforced corequisite: attendance, but not enrollment, in course 68 lecture. Exploration of connections and disconnects between American musical on stage and American film music, and larger dimensions of African American experience as mediated through groove-based music. Credit for both courses 88 and 188 is not allowed. Letter grading.
Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Introduction to some ways that music has been held to embody, support, and enact the transcendental, work of liturgy, and intersections of music, politics, and religion. Credit for both courses 72 and 172 is not allowed. Letter grading.

177. Selected Topics in Film and Music. Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 7 lecture. Limited to Music History majors and minors. In-depth exploration of issues in analysis and criticism of music in film. Credit for both courses 7 and 177 is not allowed. Letter grading.

185. Selected Topics in Rock and Roll. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 7 lecture. Limited to Music History majors and minors. In-depth exploration of issues in analysis and criticism of music in film. Credit for both courses 7 and 177 is not allowed. Letter grading.

197. Individual Studies in Music History. (2 to 4) Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business related to music or music history. Students must work on regular basis with instructor and provide periodic reports of their experiences and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198. Honors Research in Music History. (2 to 4) Tutorial, two hours. Preparation: completion of minimum of four upper division courses with departmental grade-point average of 3.5 or better and overall GPA of 3.0. Limited to junior/senior Music History majors. One- to two-term 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.

199. Directed Research in Music History. (2 to 4) Tutorial, two hours. Preparation: 3.0 grade-point average. Limited to junior/senior Music History majors. Supervised individual research under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship with strong focus on musicology and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and research techniques. No practical written forms 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 history of different fields of music scholarship with strong focus on musicology and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and research techniques. No practical written forms as abstract, grant proposal, paper/book proposal, and review. Letter grading.

Musicology Graduate Courses

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship with strong focus on musicology and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and research techniques. No practical written forms 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 history of different fields of music scholarship with strong focus on musicology and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archival and research techniques. No practical written forms as abstract, grant proposal, paper/book proposal, and review. Letter grading.

Musicology Graduate Courses
298. Seminar: Research Methods. (2) Seminar, two hours. Limited to second-year graduate musicology students and students with master's degrees. Development of advanced knowledge and bibliographic control in three historically separate areas of musicological specialization. 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.

C490T. Early Music Ensemble. (4) 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 limitation. May be concurrently scheduled with Music History CM490T. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Musicology. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. 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.

566. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Tutorial, to be arranged. Preparation: completion of all M.A. or Ph.D. course and language requirements. Limited to graduate students. S/U grading.


William M. Schniedewind, Ph.D. (Kershaw Professor of Ancient Eastern Mediterranean Studies)

Susan E. Sinyavovics, Ph.D.

WilleZe Z. Wendrich, Ph.D. (Joan Sithee Professor of African Cultural Archaeology)

Professors Emeriti

Arnold J. Band, Ph.D.

Andras E. Bodrogligeti, Ph.D.

Giorgio Buccellati, Ph.D.

Herbert A. Davidson, Ph.D.

Ismail K. Poonawala, Ph.D.

Hanns-Peter Schmidt, Ph.D.

Associate Professors

Carol A. Bakhos, Ph.D.

Aaron A. Burke, Ph.D.

Kathryn (Kara) Cooney, Ph.D.

Jacco Dieleman, Ph.D.

Nouri Gana, Ph.D.

M. Rahim Shayegan, Ph.D. (Jahangir and Eleanor Amuzegar Professor of Iranian Studies)

Assistant Professors

Domenico Ingenito, Ph.D.

Asma Sayeed, Ph.D.

Lecturers

Nancy Ezer, Ph.D.

Latifeh E. Hagigi, M.A.

Anahid Keshishian, Ph.D.

Hagop Kouloujian, M.B.A.

Guliz Kuruglu, Ph.D.

Abbe Mohamed, Ph.D.

Jeremy D. Smoak, Ph.D.

Adjunct Assistant Professors

Hans Barnard, M.D., Ph.D.

David G. Hirsch, M.A.

Scope and Objectives

The mission of the Department of Near Eastern Languages and Cultures is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Armenian, Berber, Coptic, Hebrew, Persian, and Turkic. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective—as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Armenian Studies, Jewish Studies, and Middle Eastern Studies. M.A. and Ph.D. programs are offered in ancient Near Eastern civilizations, Arabic, Armenian, Hebrew, Iranian, Semitics, and Turkic.

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 Study

The department offers the Bachelor of Arts degree in five fields: (1) Ancient Near East and Egyptology, (2) Arabic, (3) Iranian Studies, (4) Jewish Studies, and (5) 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.

Ancient Near East and Egyptology B.A.

Preparation for the Major

Required: Three courses selected from Ancient Near East 10W, 15, Middle Eastern Studies M50A, M50B, Near Eastern Languages M20. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Ancient Near East and Egyptology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course on Mesopotamia, Egypt, Near Eastern archaeology, or Middle Eastern cultures.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_trans.htm for up-to-date information regarding transfer selection for admission.

The Major

Students must complete 10 courses as follows:

Required Core Courses: One course selected from four of the following five areas (total of four courses):


History: Ancient Near East M103A through M104D, M110A, 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, C177, Anthropology 110P, CM110Q, 111, M115A, 119P, 130, 150, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 188FL, Study of Religion M186A, M186B, M186C, Semitics 130, 141, 142.

A maximum of 8 units of special studies courses (197, 198, 199) approved by the department may be applied toward the major. Each course must be taken for a letter grade.

Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education...
abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, (310) 825-4995, for UCLA-affiliated excavations, contact the departmental academic counselor at (310) 825-4165.

Arabic B.A.

Preparation for the Major

Required: Arabic 1A, 1B, 1C, and History 9D or Middle Eastern Studies 50C.

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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven courses, including (1) Arabic 102A and 102B and 102C or 108, 150 or M151, Islamics M110 and (2) six courses from Anthropology M171P, Arabic 103A, 103B, 103C, 105, 106, 107, 111A, 111B, 111C, 112A, 112B, 112C, 115, 116, 116A, 116B, 116C, 120, 123, 130, 132, C141, 142, M148, 150 or M151 (unless taken under item 1), M155, M171, 180, 181, Art History 104A, 104B, C104C, Comparative Literature 100, Geography 187, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, Islamics 130, 151, Political Science 132A, M132B, 157, 165. No more than one course may be credited through a proficiency test administered by the department. No more than two upper division 4-unit independent study or directed research courses (197, 198) may be applied toward the major. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

Iranian Studies B.A.

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.

Preparation for the Major

Required: Iranian 1A, 1B, 1C, or equivalent.

Transfer Students

Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven courses, including seven in Iranian language and civilization selected from Ancient Near East C163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, M110A, M110B, M110C, 120, 140, 141, 142, 161A, 161B, 161C, 170 (at least three of the seven must be selected from Iranian 102A, 102B, 102C, 103A, 105B, 105C, 120, 140, 141, 142) and four elective courses from the department or from Art History 104A, 104B, C104C, History 105A, 105B, 105C, Political Science 157. A maximum of two Iranian 197 or 199 courses (8 units total) may be applied toward the major.

Jewish Studies B.A.

Preparation for the Major

Required: Jewish Studies M10 or two courses selected from Ancient Near East 10W, Middle Eastern Studies M50A, M50B, 50C and demonstrated proficiency equivalent to level 3 at UCLA in one foreign language (Arabic, Armenian, Hebrew) in consultation with the department.

Transfer Students

Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one year of Arabic.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven courses, including (1) three selected from Hebrew 102A, 102B, 102C, 103A, 103B, 103C, 110A, 110B, 111A, 111B, 111C, 120, 125, 130, 135, C140—students may substitute another upper division language (Judeo-Arabic, Judeo-Persian, Ladino, Yiddish) if they can demonstrate its integral role in their specific course of study, (2) two courses selected from Jewish Studies M182A, M182B, M182C, M184A, and (3) elective courses selected from Hebrew or Jewish studies or from Ancient Near East M135, 162, English 111A, 111C, German 109, History 191F, Iranian 130, 131, Political Science 121A, 132A, M132B, Semitcs 130, Study of Religion 120, Yiddish 101A, 101B, 101C, 102A, 102B, 102C, 121A, 121B, 121C, 130, 131A, 131B, 131C.

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.

Study in Israel

Students are encouraged to spend up to one year in Israel either to (1) study with an education abroad program or (2) study at an Israeli university. For information on studying in Israel, contact the Education Abroad Program, 1332 Murphy Hall, (310) 825-4889.

Middle Eastern Studies B.A.

Preparation for the Major

Required: Two courses selected from Ancient Near East 10W, History 9D, Middle Eastern Studies M50A, M50B, 50C and demonstrated proficiency equivalent to level 3 at UCLA in one modern Middle Eastern language (Arabic, Armenian, Hebrew, Persian, Turkish) or through a departmental language placement examination. Students selecting ancient languages (including Akkadian, Aramaic, Coptic, Egyptian, Old or Middle Iranian, Sumerian, Syriac) are not required to take a modern elementary Middle Eastern language.

Transfer Students

Transfer applicants to the Middle Eastern Studies major with 80 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic, Armenian, Hebrew, Persian, Turkish, or another modern middle Eastern language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Students must complete 11 courses as follows:

Required Core Courses: A total of six courses, including at least two from the following four areas:


Students may petition to substitute a core or elective course with a departmental independent study/directed research course (197, 198, or 199) as long as it covers a topic relevant to Middle Eastern studies. No more than two 197, 198, or 199 courses (8 to 10 units) may be applied toward the major.
Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, (310) 825-4889; for UCLA-affiliated excavations, contact the departmental academic counselor at (310) 825-4165.

Arabic and Islamic Studies Minor

The Arabic and Islamic Studies minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of Arabic language and literature and Islam.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, (310) 825-4165.

Required Lower Division Courses (15 units):
Arabic 1A, 1B, 1C, or equivalent.

Required Upper Division Courses (20 units):
Five courses in Arabic or Islamics; 199 courses may not be applied with consent of the adviser, two of the five courses may be taken outside the department. Courses recommended as electives for the major in Arabic (Anthropology M171P, Art History 104A, 104B, C104C, Comparative Literature 100, Geography 187, History 105A, 105B, 105C, M106A, M106B, 108B, 111A, 111B, 111C, Islamic M110, 130, Political Science 132A, M132B, 157, 165) may be applied. Other courses, including extra-departmental 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. 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.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, (310) 825-4165.

Required Lower Division Courses (15 units): Armenian 1A, 1B, 1C, or 4A, 4B, 4C, or equivalent.

Required Upper Division Courses (20 units): Five courses from the Armenian section of the department; 199 courses may not be applied. With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Ordinarily, the following courses may be applied: History 107A through 107E, Indo-European Studies M150.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Hebrew and Jewish Studies Minor

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 Humanities Building, (310) 825-4165.

Required Lower Division Courses (15 units):
Hebrew 1A, 1B, 1C, or 8, or equivalent.

Required Upper Division Courses (20 units):
Five courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With consent of the undergraduate adviser and based on course consent, two of the five courses may be taken outside the department.

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.

Iranian Studies Minor

To enter the Iranian Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, (310) 825-4165.

Required Lower Division Courses (10 to 11 units):
Iranian 1C or 20C or equivalent and one course from Middle Eastern Studies M50A, M50B, or 50C.


A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor. No 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.

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.

To enter the minor, students must have an overall grade-point average of 2.0 or better, completed Middle Eastern Studies 50C or equivalent, and file a petition in 378 Humanities Building, (310) 825-4165.

Required Upper Division Courses (28 to 33 units):
Jewish Studies M142, M144, and five courses from at least two of the following categories: (1) language—Arabic 103A, 103B, 103C, Hebrew 103A, 103B, 103C, 111A, 112, (2) literature, arts, and culture—Arabic 120, M123, 130, M148, Hebrew M113, C140, Jewish Studies M150A, 150B, 151B, M162, 175, Middle Eastern Studies C122, (3) politics—Political Science 120B, 132A, M132B, 157, (4) regional and historical setting—Geography 167, History 105A, 105B, 105C, Study of Religion 110, 120.

A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the department 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.

Middle Eastern Studies Minor

The Middle Eastern Studies minor is designed for students who wish to augment their major program in the College of Letters and Science with a group of related courses from various linguistic, literary, archaeological, and historical disciplines of the Near East, from ancient Egypt, Mesopotamia, and biblical studies to the modern Arabic, Armenian, Iranian, Jewish, and Turkish world.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Humanities Building, (310) 825-4165.

Required Lower Division Courses (9 to 10 units):
Two courses selected from Ancient Near East 10W, History 9D, Middle Eastern Studies M50A, M50B, 50C.
Ancient Near East

(Akkadian, Aramaic, Phoenician, Syriac, and Ugaritic are listed under Semitics.)

Lower Division Courses

10W. Jerusalem: Holy City. (5) Lecture; three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H. Develops as a Second Lan-
guage 36. 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 lit-
erary and archaeological evidence through examina-
tion of testimony of artifacts, architecture, and ico-
ography in relation to written word. Study of creation of mythic Jerusalem through present and experience. Satisfies Writing II requirement. Letter grading.

15. Women and Power in Ancient World. (5) Lecture; four hours; discussion, one hour. 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 positions 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 that they were so effective that their role could be unstable. 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 in midst of civil war when patrilineal successions were in disarray. Women were sometimes only effective in political and religious history. Background provided for understanding of social, po-
litical, and cultural development of Fertile Crescent, in-
cluding Palestine, from Late Urnu to neo-Babylonian period. P/N or letter grading.

M104B. Sumerians. (4) Formerly numbered 164A.) (Same as History M104B.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Sumer and re-
lated cultures of Greater Mesopotamia in 4th and 3rd millennia B.C.E., with focus on rich cultural history of region and integration of architectural, art historical, and written records. P/N or letter grading.

M104C. Babylonians. (4) Formerly numbered 164B.) (Same as History M104C.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Babylonian and cur-
temporary history of region of Sumer and Babylonia from 4th to 1st millennia B.C.E. to invasion of Cyrus in 539 B.C.E., with focus on history and archaeological of region, urban structure, literature, and legal practices. P/N or letter grading.

M104D. Assyrians. (4) Formerly numbered 164C.) (Same as History M104D.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Assyrian cul-
tural history from its origins to end of Neo-Assyrian period (circa 612 B.C.E.), with focus on rise, me-
chanics, and decline of Neo-Assyrian Empire, which at its peak ruled ancient Near East from Zags to Egypt. P/N or letter grading.

M105. Archaeology of Egypt and Sudan. (4) (Same as Anthropology M119E.) Lecture, two hours; labora-
tory, two hours. Ancient Egypt is well known for its im-
portant and significant archaeological sites such as Giza Pyramids and Tomb of Tutankhamun. From these and thou-
sands of less well-known sites, enormous variety of archaeological information can be gained. Through dis-
cussion of particular archaeological themes, re-
gions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological in-
fotainment contributes to understanding of ancient cul-
tural, and religious history. Background provided for development of group research projects—finding re-
sources, data gathering, analysis, interpretation, pre-
sentation, and training on how to embark on research in this field. Computer laboratory component included in which student research is performed and presented in time map. P/N or letter grading.

M110A-M110B-M110C. Iranian Civilization. (4-4-4) (Same as History M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). Overview of ancient Iranian rise from Elam to the end of Sasanian dy-
nasty—Elamite civilization and Mede, Achaemenid, Arsacid, and Sasanian Empires. Emphasis on ancient Iran, but may be offered for early Islamic period. P/N or letter grading.

Upper Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) (Same as Art History M101A.) Lecture, three hours. Study of ar-
chitectural, sculpture, painting, and minor arts during the Predynastic and Old Kingdom. May be re-
peated for credit with consent of instructor. Concur-
rently scheduled with course C267A. P/N or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) (Same as Art History M101B.) Lecture, three hours. Study of architecture, sculpture, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/N or letter grading.

M101C. Ancient Egyptian Temple and City of The-
bes. (4) (Same as Art History M101C.) Lecture, four hours; fieldwork, of ancient temples and city of Thbes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile's eastern and western banks through festival processions, chronological changes in function and form of Theban temples through time, and statuary program of individual temples. P/N or letter grading.

M103A-M103B-M103C. Ancient Egyptian Civilization. (4-4-4) (Same as History M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not requisite to M103B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/N or letter grading. M103A. Chronological discus-
sion of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until 332 B.C.

M104A. History of Ancient Mesopotamia and Sy-
ria, (4) (Formerly numbered M104.) (Same as History M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Politi-
cal and cultural development of Fertile Crescent, in-
cluding Palestine, from Late Urnu to neo-Babylonian period. P/N or letter grading.

M104B. Sumerians. (4) Formerly numbered 164A.) (Same as History M104B.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Sumer and re-
lated cultures of Greater Mesopotamia in 4th and 3rd millennia B.C.E., with focus on rich cultural history of region and integration of architectural, art historical, and written records. P/N or letter grading.

M104C. Babylonians. (4) Formerly numbered 164B.) (Same as History M104C.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Babylonian cul-
temporary history of region of Sumer and Babylonia from 4th to 1st millennia B.C.E. to invasion of Cyrus in 539 B.C.E., with focus on history and archaeological of region, urban structure, literature, and legal practices. P/N or letter grading.

M104D. Assyrians. (4) Formerly numbered 164C.) (Same as History M104D.) Lecture, three hours. De-
signated for juniors/seniors. Overview of Assyrian cul-
tural history from its origins to end of Neo-Assyrian period (circa 612 B.C.E.), with focus on rise, me-
chanics, and decline of Neo-Assyrian Empire, which at its peak ruled ancient Near East from Zags to Egypt. P/N or letter grading.

M105. Archaeology of Egypt and Sudan. (4) (Same as Anthropology M119E.) Lecture, two hours; labora-
tory, two hours. Ancient Egypt is well known for its im-
portant and significant archaeological sites such as Giza Pyramids and Tomb of Tutankhamun. From these and thou-
sands of less well-known sites, enormous variety of archaeological information can be gained. Through dis-
cussion of particular archaeological themes, re-
gions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological in-
fotainment contributes to understanding of ancient cul-
tural, and religious history. Background provided for development of group research projects—finding re-
sources, data gathering, analysis, interpretation, pre-
sentation, and training on how to embark on research in this field. Computer laboratory component included in which student research is performed and presented in time map. P/N or letter grading.

M110A-M110B-M110C. Iranian Civilization. (4-4-4) (Same as History M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled). Overview of ancient Iranian rise from Elam to the end of Sasanian dy-
nasty—Elamite civilization and Mede, Achaemenid, Arsacid, and Sasanian Empires. Emphasis on ancient Iran, but may be offered for early Islamic period. P/N or letter grading.

120A-120B-120C. Elementary Ancient Egyptian. (5-5-5) Lecture, five hours. Course 120A is requisite to 120B, which is requisite to 120C. P/N or letter grading. 120A, Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian. Basic rules of Middle Egyptian syntax, with focus on nom-
inal, adjectival, and adverbial sentences. 120B, Verbal system and syntax of verbal sentences of Middle Egyptian. 120C, Reading of authentic Egyptian texts

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/

Graduate Degrees

The Department of Near Eastern Languages and Cultures offers Master of Arts (M.A.), Can-
didate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Near Eastern Languages and Cultures.
to deepen knowledge of Egyptian grammar and to acquire familiarity with aims and methods of philology, study of ancient texts.

121A-121B-121C. Intermediate Ancient Egyptian Readings. (5-5-5) Lecture, three hours. Requisite: course 120C. Course 121A is requisite to 121B, which is requisite to 121C. Theme readings in ancient Egyptian historical, religious, and literary texts. May be repeated for credit. P/NP or letter grading.

C123A-C123B. Coptic. (5-5) (Formerly numbered 123A-123B) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which is attested from 300 to 1400 CE. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading.

C123D. 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 Gnostic Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Bohairic, Fayumic, Akhmimic).

124. Middle Egyptian Technical Literature. (4) Lecture, three hours. Requisite: course 121C. Reading of Middle Egyptian technical literature in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Core Course A: Place, Scale, and the World. (4) Lecture, three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and three-dimensional modeling are being utilized as new means of inquiry in the humanities and social sciences. Provides students with critical apparatus needed to effectively, responsibly, and heuristically use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reasoning, and argumentation to learn to critically assess map-representations of cultural phenomena. Tracing of historical mapping and spatial representation of place to learn how mapping has always been connected with societal structures, politics, economics, and culture because maps are more than just cartography. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypervolumes, and Timelines. (4) (Same as Architecture and Urban Design M125B) Laboratory, three hours; two hours, one hour. Enforced requisite: course 125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, including instruction in Web-based mapping applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, applying skills students learned in course 125A to real-world data sets in humanities and social sciences. By mastering emerging technologies in field of digital cultural mapping, students take part in evaluation and production of sophisticated visual representations of complex data, becoming active participants in development of new field. How does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and implementation of student-generated mapping projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

125C. Digital Cultural Mapping Core Course C: Summarizing the Project. (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 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 research design, 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 materials 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) (Formerly numbered 130.) (Same as Religion M132.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and sentiments of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as 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 B.C. to 300 C.E.). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M135. Religion in Ancient Israel, (4) (Formerly numbered 135.) (Same as Religion M135.) Lecture, three hours. Introductory survey of various ancient Israelite religious beliefs and practices, their origin, and development with management of religious practice in ancient Israel and Canaan during 1st millennium B.C.E. P/NP or letter grading.

140A-140B-140C. Elementary Sumerian. (4-4-4) Lecture, three hours. Requisites: Semiotics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from Ur III period, P/NP or letter grading.

150A-150B. Survey of Ancient Near Eastern Literatures in English. (4-4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. 150A: Mesopotamia; 150B: Egypt. Preparation: familiarity with Egyptian history. Enforced requisite: courses M130A, M130B. Survey of 3,000 years of ancient Egyptian literature. Reading of Egyptian texts in translation to study Egypt's intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, autobiography, wisdom texts, narratives, royal inscriptions, and hymns. Discussion of text analysis such as narratology.


162. Archaeology of Ancient Israel. (4) Lecture, three hours. Survey of Bronze and Iron Age archaeology of Canaan and Israel through coming of Alexander the Great, with emphasis on relationship between archaeology and historical texts, P/NP or letter grading.

C163. Archaeology of Iran, (4) (Formerly numbered 163.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Islamic times. Concurrently scheduled with course C259B. 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 C259B. P/NP or letter grading.

166. Art and Death in Ancient Egypt. (4) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East. Archaeological, historical, and literary materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

M167. Magic in Ancient World. (4) (Same as Classics M167) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Examination 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.

M168. Introductory Hititite. (4) (Same as Indo-European Studies M168) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of languages with case systems. Introduction to Hititite 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.

CM169. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM110Q) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement the ability to interpret and evaluate results of their use by others who have embedded them in their scholarly publications or theoretical models. Systematic instruction in digital data manipulation and management 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 CM126B. P/NP or letter grading.

M170. Introduction to Biblical Studies. (4) (Formerly numbered 170) (Same as Religion M172) Lecture, three hours; discussion, one hour. Variable topics; consult Schedule of Classes for topics to be offered in specific term. Concurrently scheduled with course C277. P/NP 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 religion of ancient Israel: varying concepts of divinity, hierarchies of deities, and reconstruction of religious thought and practice. Individual contract required. P/NP or letter grading.

197. Individual Studies in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating project or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) (Same as Anthropology M201) Lecture, three hours. Requisites: Archaeology M201A, M201B. How to design archaeological projects in preparation for M.A. thesis or Ph.D. phase. Students do exploratory research to select a project, 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. Prepa ration of at least two oral progress-report presentations, one on theoretical framework and one on prac-
263. Seminar: Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and hot deserts. Emphasis on description of temples and tombs, statuary and monuments, settlement and use history, text translation of appropriate documents, including stelae, monumental inscriptions, or pertinent socioeconomic texts. May be repeated. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; research group meeting, one hour. Ancient Egyptian museum collection around world, data sets, provenance and dating studies, collection history and agenda, museology, and exhibition history. May be repeated for credit with consent of instructor. S/U or letter grading.

265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("lives") which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such concepts as dating and pe- dology with help of specialists. S/U or letter grading.

266. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian archaeology. Topics vary each year. May be repeated with consent of instructor. Concurrently scheduled with course C165. S/U or letter grading.

267A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) 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 CM101A, S/U or letter grading.

267B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course CM101B. S/U or letter grading.

CM269. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM210G.) 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 theo- retical models. Students in detail data management and mining, scientific analysis of mate- rials (including geological and biochemical tech- niques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM169. S/U or letter grading.

270. Old Egyptian. (4) Seminar, three hours. En- forced 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 for indepen- dent research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 B.C.E.). Through close reading of texts in original language and original format, students learn grammar, orthography, and phrasing of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biogra- phies, royal edicts, and Pyramid Texts. Letter grading.

277. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topical coverage to be arranged. Topics to be offered in specific term. Concurrently scheduled with course C177. S/U or letter grading.

297. 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 with prior knowledge of Arabic. Introduction to formal Arabic (modern standard Arabic), including listening, speaking, reading, and writing. P/NP or letter grading.

8. Elementary Standard Arabic: Intensive. (12) Lecture, ten hours; discussion, ten hours. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Introduction to fundamentals of standard Arabic, including pronunciation, grammar, and Arabic script, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Standard Arabic. (5-5-5) Lecture, six hours. Enforced requisite: course 1C or 8. Course 102A is requisite to 102B, which is requisite to 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. P/NP or letter grading.

102D-103A-103B. Arabic Language Analysis. (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, in- cluding grammar, composition, and readings from classical and modern texts. P/NP or letter grading.

105. Introduction to Qur’anic and Islamic Arabic. (4) Lecture, three hours. Requisites: courses 1A, 1B, 1C. Introduction to Arabic language in relation to Islamic tra- di tions of Prophet Muhammad, and early Islamic lit- erature (biographies of Prophet and historical narra- tives). P/NP or letter grading.

M106. Qur’an. (4) (Same as Religion M106.) Lecture, three hours. How Qur’an as scripture shape Muslims’ doctrine, rituals, and culture, and how throughout his- tory Muslims have determined interpretations and ap- plications of Qur’anic doctrines and prescriptions. Content analysis and analysis of contemporary dis- courses on Islam. Letter grading.

M107. Islam in West. (5) (Same as Islamics M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understand- ing the 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.

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 more advanced courses. Intensive course equivalent to courses 102A, 102B, and 102C. Intermediate formal Arabic, including listening, speaking, reading, and writing. Offered in summer only. P/NP or letter grading.

M110. Thousand and One Nights/Alf Layla Wa- Layla. (4) (Same as Comparative Literature M110.) Lecture, three hours. Knowledge of Arabic not re- quired. Since its appearance in Europe in 1704, Thou- sand and One Nights is most well-known work of Arab- ic literature in West. Examination of cycle of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral perfor- mances of tales in Arabic-speaking world, literary and vernacular language in relation to clas-
logical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/NP or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4-4-4) Lecture, three hours. Enforced requisite: 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.


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 Dialectology. (4) Lecture, three hours. Introduction to one spoken dialect of Arabic, with emphasis on speaking and listening comprehension. Dialects vary from year to year based on student interest and instructor availability and may include Levantine, Egyptian, North African, or Gulf Arabic. May be repeated for credit. P/NP or letter grading.

116A-116B-116C. Elementary Arabic Arabic. (5-5-5) Lecture, five hours. Course 116A is requisite to 116B, which is requisite to 116C. Introduction to dialect of Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and production of sounds of Iraqi Arabic and basic vocabulary, grammar, idiomatic expressions, and relevant cultural background through dialogues and other conversational exercises. P/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.

M123. Conduct and Performance of Arab World. (4) Same as Comparative Literature M123.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of 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 and religious secondary literature. Topics include pre-Islamic poetry, Qur'an, Umayyad and Abbasid poetry, biography, geography, medicine, mathematics, oratory, Qur'an, Umayyad and Abbasid poetry. May be repeated for credit. Letter grading.


C141. Modern Arabic Literature. (4) Formerly numbered 141.) Lecture, three hours. Requisite: course 102C. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variably organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures, mixing thematic and formal analyses of literary and critical texts and making use of film, video, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C241. Letter grading.

142. Arabic Media. (4) Lecture, four hours. Requisite: course 103A. Development of facility with language of Arabic press and broadcasting. Activities include monitoring current materials via Internet; transcribing, translating, and commenting written and visual texts in Arabic; and oral presentations and discussions. May be repeated for credit. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) Same as Comparative Literature M148.) Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (Iltizam), with possible focus on specific genres such as realist/ neorealist 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 media genres such as Rai, Mizoued, and Hip-hop also examined in relation to emergence not only of national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academies, and YouTube. Focus on transnational and pan-Arab mass media. P/NP or letter grading.

150. Classical Arabic Literature in English. (4) Lecture, three hours. Readings in English; knowledge of Arabic not required. Survey of premodern Arabic cultural production in its political, religious, and social contexts. Coverage of pre-Islamic Arabia, rise of Islam, classical medieval Asian history along with significant figures and moments in literature and culture of premodern period. Consideration of selected modern responses to Arab tradition. P/NP or letter grading.

M151. Modern Arabic Literature in English. (4) (Same as Comparative Literature M167.) Lecture, three hours. Designed for upper division literature majors. Topics may include constrictions of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, expropriation of, and transformation by modern narrative. 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, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

M155. Al-Andalus: Literature of Islamic Spain. (4) Seminar. Conducted in English and Arabic, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Arab and Jewish cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

M171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M171P and History M108C.) Lecture, three hours. Designed for juniors/seniors. In traditional societies, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Maghreb. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender roles; and representation of Islam and religions in region's public spaces. 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 Arab 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 (at least three years of Arabic instruction or equivalent). Open to both native and non-native speakers of English and Arabic. Training of students in methodology of translation from Arabic into English, with focus on producing accurate and readable English versions of Arabic texts from variety of fields. Close reading and written translation of Arabic texts, with review of linguistic and cultural difficulties that arise in course of translation. Texts may include classical Arabic literature (religion, historiography), modern writing (literature, media), and spoken Arabic (television, radio), based on student interest. Letter grading.

188FL. Special Studies: Readings in Arabic. (2) Seminar. Two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. 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.

197. Individual Studies in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading in a tangibly enriching and subject-matter important text 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 hermeneutics of various schools of thought in Islam, such 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 topic with representative readings from various schools. Exploration of selected texts 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. Requisites: course 102C, Hebrew 102B. Download or translation of Judeo-Arabic texts by modern writers (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and deviations from norms of classical Arabic. S/U or letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three hours. Introduction to very large body of literature on medieval Islamic history. Selected readings in Arab that represent cross-section of Islamic historical writings, including Ibn Ishaq's Sira, Waqidi's Maghazi, Baladurah's Futuh, Tabari's Tanbih, digests of Ya'qubi and Mas'ud, Ibn Khaldun's Muqaddima, and Maghrib's toponography. Historians studied either to determine their reliability as sources or their view of history and its theoretical foundations. Exploration of sources, research tools, and medieval 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 and contemporary Islamic geographers. Selected readings in Arab that represent cross-section of medieval geographical writings distributed over number of disciplines and various aspects of geography, such as Surat al-ard, Kitab al-Buldan, al-Masalik wa'l-mamalik, and various aspects of geography, such as Surat al-ard, Kitab al-Buldan, al-Masalik wa'l-mamalik, and Maqrizi's toponography. Historians studied either to determine their reliability as sources or their view of history and its theoretical foundations. Exploration of sources, research tools, and medieval Islamic history. May be repeated for credit. S/U or letter grading.

C241. Modern Arabic Literature. (4) Lecture, three hours. Requisite: course 102C. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variably organized across or around particular 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, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C141. 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. Topics include pre-Islamic poetry, and contemporary Arab and Palestinian literature. May be repeated for maximum of 24 units. S/U or letter grading.
Armenian

Lower Division Courses

1A-B-1C. Elementary Modern Western Armenian. (5-5-5) Formerly numbered 101A-1018-101C. Course offerings are determined by student need and are scheduled to accommodate students in the Armenian Community. Concurrently scheduled with course 110 for credit. P/NP or letter grading.

1A-6B. Advanced Modern Western Armenian. (5-5-6) 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 Western Armenian in following areas of competency: fluency, literary, accuracy, and proficiency. Use of language to engage literary themes and cultural issues of historical and contemporary significance for Armenian speakers. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Modern Western Armenian. (5-5-5) Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Designed for students interested in editing and/or translating manuscripts. S/U or letter grading.

M288. Modern Arab Thought. (4) (Same as Comparative Literature M288.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam after collapse of ideology of secular nationalism and failure of Arab left to apprehend economic and 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 around 1980. Course will focus on understanding forthcoming religious and cultural changes. Participants collaborate on projects that investigate issues related to teaching different language skills, such as listening, speaking, reading, and writing. S/U 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 centuries as result of exposure to European 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, four hours. Preparation: reading 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.


C166. Armenian Film and Culture. (5) Lecture, six hours. Required: course 1C or 4C. Overview of development of Armenian cinematography from first talkie to present. Focus on work of most semidirectors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C266. P/NP or letter grading.
170. Armenian Poetry, 1880 to 1930. (4) Lecture, three hours. Required: course 1C or 4C. Examination of process behind creation of range and variety of poetic expressions that developed in new literary language, including texts from Arshak, Standard, and Late periods. Increased understanding of Armenian verbal system, including different speech acts in both formal and informal contexts, and various Armenian sociocultural issues to familiarize students with different aspects of Israeli daily life and popular culture, while teaching them multiple methods for both texts and enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B-111C. Conversational Hebrew. (3-3) Lecture, two hours; laboratory, one hour. Required: course 111B. Course 111B is required 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 Armenia, Internet, and newspapers. P/NP or letter grading.

112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours. Required: course 102C. In-depth reading and discussion of seminal scholarly articles in major fields for Hebrew disciplines: Bible study, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/NP or letter grading.

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (4) Formerly numbered 111 (Same as Jewish Studies M113) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine predeterminedness of modernist-Zionist narrative. Recycling and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning formative myths. They simultaneously display loss of faith in representative democratic language, including ability of texts to penetrate to its hidden meaning. Using periphrasis, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Required: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for maximum of 16 units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requi- sites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for credit.


C140. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in modern Hebrew poetry and prose. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C110, C110B.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requi- site: course 110C. Readings in Hebrew scrolls from Dead Sea, with focus on grammar, paleography, and biblical interpretation in Dead Sea Scrolls. May be re- peated for credit. P/NP or letter grading.

Graduate Courses

230A-230B-230C. Elementary Classical Armenian. (4-4-4) Lecture, three hours. Course 230A is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (5th to mid-19th century) and guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4-4-4) Lecture, three hours. Required: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Philiellenic School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

250A-250B. Seminars: Armenian Literature. (4-4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

C251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition has formed. May be repeated for credit. 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 Ar- menian Literature. (4) Lecture, four hours. Examination of role of literature in modern Armenian society in service to nation. May be repeated for credit. P/NP or letter grading.

C255. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Arme- nian. Theoretically informed exploration of some of most significant modern American works relating to American community as reflected in its literature and other cul- tural artifacts in interaction with its pluralistic Amer- can ambience. Concurrently scheduled with course C155. Letter grading.

C266. Armenian Film and Culture. (5) Lecture, six hours. Required: course 1C or 4C. Overview of develop- ment of Armenian cinematography from first talkie to present, with focus on work of most seminal direc- tors. Concurrently scheduled with course C166. S/U or letter grading.

C275. Individual Studies in Armenian. (2 to 4) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Hebrew

Lower Division Courses

1A1B-1B-1C. Elementary Hebrew. (5-5-5) Lecture, four hours; laboratory, one hour. Required: enrollment in Hebrew placement test. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to native speakers. Introduction to modern Hebrew, including listening, speaking, reading, and writing. P/NP or letter grading.

1A1B-1B-1C. Elementary Hebrew. (5-5-5) Lecture, four hours; laboratory, one hour. Required: enrollment in Hebrew placement test. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to native speakers. Introduction to modern Hebrew, including listening, speaking, reading, and writing. P/NP or letter grading.

188. Variable Topics in Armenian. (4) Lecture, four hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Armenian. (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.

197. Individual Studies in Armenian. (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.

197. Individual Studies in Armenian. (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.

Directed Research or Senior Project in Arme- nian. (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.

111B-111C. Conversational Hebrew. (3-3) Lecture, two hours; laboratory, one hour. Required: course 111B. Course 111B is required 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 Armenia, Internet, and newspapers. 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 Israel; Biblical Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic). P/N or letter grading.

188FL. Special Studies: Readings in Hebrew. (2 or 4) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Primary readings and advanced training in Hebrew are included on Second Temple Hebrew to enrich and augment work assigned in main course, including reading, writing, and other exercises in Hebrew. P/N 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/N or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/N or letter grading.

Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and role of Dead Sea Scrolls in formative Judaism. Reading in original manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Arabic M231.) Lecture, three hours. Requisites: course 102C, Arabic 102C. Reading of Judeo-Arabic texts by Malamodies (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and deviations from norms of classical Arabic. S/U or letter grading.

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 themes from onomatology, grammar, and syntax and to subsequent Rabbinic writings. Course builds following skills: reading unpointed texts, mastering distinctive elements of vocabulary, and analysis of Second Temple Hebrew, and analyzing relationships between biblical and postbiblical sources. May be repeated for credit. S/U or letter grading.

C240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major poets and prose writers of past 100 years. May be repeated for credit. Concurrently scheduled with course 1440. Letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Iranian Lower Division Courses

1A-1B-1C. Elementary Persian. (5-5-5) Lecture, six hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students with prior knowledge of Persian. P/N or letter grading.

5. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned from whom whatever, enough Persian to qualify for more advanced courses. Intensive course equivalent to courses 1A, 1B, and 1C. Intensive study of fundamentals of Persian, including pronunciation, grammar, and Persian script, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/N or letter grading.

20A-20B-20C. Accelerated Elementary Persian. (6-6-6) Lecture, four hours; discussion two hours; laboratory, 30 minutes per day. Preparation: some knowledge of Persian required. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Intensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. P/N or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, six hours. Requisite: course 1C or 20C. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. P/N 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/N 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 concepts in ontology, epistemology, psychology, and cosmology through texts, with study in detail. P/N or letter grading.

M105A-M105B-M105C. Bahá’í Faith in Iran. (4-4-4) (Same as Religion M105A-M105B-M105C.) Lecture, three hours. Readings in English. Each course may be taken independently for credit. P/N or letter grading. M105A. Historical and Sociological Survey. Historical record of birth and spread of Bahá’í Faith in Iran from beginning to present. M105B. Bahá’í Teachings that Transformed Iranian Community and Made it Open to Modernity. Progressive and transforming teachings and principles that broke mental and physical isola-

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169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sassanian period.

170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammadan conquest; Indo-Iranian background, Zoroastrianism, Manicheism, Mazdaism.

187. Variable Topics in Iranian Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

188FL. Special Studies: Readings in Iranian. (2 to 8) Tutorial, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and advanced training in different fields of Iranian literature are studied. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Iranian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Intensive individual 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 Iranian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or presentation required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


221. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requisite: course 220A or 220B. Study of life and works of Rumi in context of interaction of Sufism and poetic creativity. May be repeated twice for credit.

M222A-M222B. Vedic. (4-4) (Same as 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 216C. Course 231A is requisite to 231B, which is requisite to 231C. Further studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khotanese, Bactrian). May be repeated for credit with consent of instructor. S/U or letter grading.

250. Seminar: Classical Persian Literature. (4) Seminar, three hours. Requisites: courses 103A, 103B, 103C, 199. May be repeated twice for credit.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Jewish Studies

Lower Division Course

M10. Social, Cultural, and Religious Institutions of Judaism. (4) Formerly numbered 10.) (Same as Religious M10.) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of theology, prayer, sabbath, and the messian; history of Talmud and synagogue; evolution of folk beliefs and year-cycle and life-cycle practices. P/NP or letter 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) written in the 1980s that use, each to varying degree, postmodernist techniques to undermine predominance of modernist-Zionist narrativity. Recycling and reexamination of Israeli condition and Zionist urge and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning formative myths. They simultaneously display loss of faith in representational 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.

135. Jewish Law. (5) Lecture, three hours. Introduction to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern secular systems and discussion of ethical dimensions of legal systems. P/NP or letter grading.

140A-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 immigrants and development of institutions. P/NP or letter grading. 140A. 1654 to 1914; 140B. 1914 to the Present.

154. Modern Israel: Politics, Society, Culture. (4) Formerly numbered 152.) (Same as Middle Eastern Studies M154.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign politics, and dynamic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Tension between Israel’s conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups 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 democ- cracy, it contends with multiple strains on its democ- ratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

143. 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.

1544. Zionism: Ideology and Practice in Making of Jewish State. (4) Formerly numbered 144.) (Same as Middle Eastern Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of European, world, and Jewish histories from ideo- logical origins to political, cultural, and social founda- tions 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 inde- pendently for credit. M150A. Literary Traditions of An- cient Israel: Bible and Apocrypha. (Same as Compar-
ative Literature M101.) Study of literary culture of an- cient Israel through examination of principal compositonal strategies of Hebrew Bible and Apocrypha (read in Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. 151B. Israelite Literature. Study of translations from Hebrew literature written in Israel and reflecting cardinal facets of Israelite life: social issues, security problems, identity of the state, role of individual. Analysis of formal aspects of each work.


156. 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 back- grounds. P/NP or letter grading.


175. Modern Israeli Literature Made into Films. (5) [Formerly numbered 75.] Lecture, four hours; discussion, one hour. Reading, analysis, and discussion of modern Israeli literature that was made into films, including literary works of prominent Israeli authors (S. Yizhar, A.B. Yehoshua, Amos Oz, and Yitzhak Ben Ner) that were translated to English and had filmic ad- aptations. Letter grading.

177. Variable Topics in Jewish Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for specific term. May be repeated for credit. P/NP or letter grading.

M181. Topics in Jewish History. (4) [Same as History M181.] Lecture, three hours; discussion, one hour (when scheduled). Examination of major issues in Jewish history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M182A. Ancient Jewish History. (4) [Same as History M182A and Religion M182A.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) [Same as History M182B and Religion M182B.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M182C. Modern Jewish History. (4) [Same as History M182C.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Jewish history beginning with the enormously repercussive expulsion of Jews from Spain in 1492, followed by transformations in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) [Same as History M184A and Religion M184A.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia-old interaction of Jews with great world cultures. Creative adapta- tions that have lent Jewish culture its distinct and var- ious forms. P/NP or letter grading.

M184B. History of Anti-Semitism. (4) [Same as History M184B.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of anti-Semitism. P/NP or letter grading.

M184C. American Jewish Experience. (4) [Same as History M184C.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in America, both historical and contemporary. P/NP or letter grading.

M184D. History of Zionism and State of Israel. (4) [Same as History M184D.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to present. P/NP or letter grading.

M187. Holocaust in Literature. (4) [Same as Comparative Literature M165.] Lecture, three hours. Inves- tigation of how the Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

M188SL. Applied Jewish Studies and Social Ethics. (4) [Same as History M188SL and Religion M188SL.] Lecture, three hours; discussion, two hours. Introduction to history, theory, and practice of applied Jewish studies. Analysis of historical and contempo- rary texts on Jewish social ethics and justice (biblical, rabbinic, medieval, and modern) paired with service learning in Jewish social justice organizations that work with diverse populations in Los Angeles communities. P/NP or letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and develop- ment 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 seniors/juniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As- signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Jewish Studies. (4) Tutorial, one hour. Limited to ju- niors/seniors. Supervised research or inves- tigation under guidance of faculty mentor. Culmi- nating 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

M50A. First Civilizations. (5) [Formerly numbered 50A.] (Same as Ancient Near East M50A.) Lecture, three hours; discussion, one hour. Survey of great civili- zations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monolith, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) [Formerly numbered Near Eastern Languages M50B.] (Same as Ancient Near East M50B and Religion M50B.) Lecture, three hours; discussion, one hour. Survey of ancient Eastern cultures—Judaism, Christianity, and Islam—histori- cally and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and interesting divergences 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.

50C. Making and Studying Modern Middle East. (5) [Formerly numbered Near Eastern Languages 50C] Lecture, three hours; discussion, one hour. Survey of modern Middle Eastern cultures through readings and films from Arab countries, Iran, Turkey, and Israel. Letter grading.

Upper Division Courses

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M111D and Islamic M111D.) Lecture, three hours. Focus on Islamic civilization 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 Af- rica, and Spain. Profound cultural transformations oc- curred from birth of Islam in 7th century to early Ot- toman period in 16th and 17th centuries, which are traced in material remains and documentary records. Assessment of effec- tiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

C122. History, Memory, and Identity in Israel, (4) Seminar, three hours. Israeli society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and an- cient events, and how these are represented by his- torical scholarship as well as in popular media and public spaces. Strategies of history persist have been central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which strug- gles over past have shaped Israeli present. Examina- tion of historiographical debates and their reflections in range of media to make some sense of over- whelming past, ways in which people develop ideological, and cultural identities in present, and where meeting points are between popular discourse and work historians do. Examination of conflicting read- ings of past and its representation in historiogra- phy and in shaping of Israeli collective memory and identity. Concurrently scheduled with course C222. P/NP or letter grading.

M133. Bible and Quran. (4) [Same as Religion M133.] Lecture, three hours. Survey of Hebrew Bible/Old Tes- tament, New Testament, and Quran to familiarize stu- dents with content of scriptures of Judaism, Christi- anity, and Islam, and sociocultural background from which these multiform materials emerged, and to ex- plore major themes and consider variety of ap- proaches to scripture. Development of appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) (Same as Jewish Studies M142.) Lecture, three hours. Examination of evolution of modern Jewish state with concomitant changing socio- culture, volatile domestic and foreign politics, and dy- namic culture—from its foundation in 1948 to present, in context of global political and cultural change and changing Jewish world. Treatment of state’s con- ception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups and to great diversity of cultures; that it was envis- aged as safe haven for Jewish people but has also been characterized by insecurity and ongoing war; that, founded as democracy, it continues with multiple
strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M144. Zionism: Ideology and Practice in Making of Jewish State. (4) (Same as Jewish Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of European, world, and Jewish histories from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

177. Variable Topics in Middle Eastern Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered by specific term. May be repeated for credit. P/NP or letter grading.

M178. Variable Topics. (4) (Same as Religion 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.

Graduate Courses

200. Bibliography and Method of Near Eastern Languages and Literatures. (4) (Formerly numbered Near Eastern Languages 200.) Lecture, two hours. Required for M.A. degree. Introduction to bibliographical resources and training in methods of research in various branches of specialization offered by department. May be repeated for credit. S/U or letter grading.

201. Study of Religion: Theory and Method. (4) (Formerly numbered Near Eastern Languages 201.) Seminar, three hours. Preparation: familiarity with at least two of classical and/or modern religious traditions. Introduction to theories and methods used in academic study of religion. In attempt to demonstrate importance that historical, cultural, and social exigencies play in development of religious traditions, discussion of theories comparatively and in their historical context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

210. Survey of Afro-Asiatic Languages. (4) (Formerly numbered Near Eastern Languages 210.) 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.

C222. History, Memory, and Identity in Israel. (4) (Formerly numbered Near Eastern Languages 222.) Seminar, three hours. Israeli society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient. Theories and ideologies are presented and analyzed with historical scholarship as well as in popular media and public spaces. Struggles over image of past have become central (as in many other societies) to debates about identity in present and directions, goals, and hopes for future. Exploration of ways in which struggles over past have shaped Israeli present. Examination of historiographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cultural identities in present, and where meeting points are between popular discourse and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography and in shaping of Israeli collective memory and identity. Concurrently scheduled with course C212. S/U or letter grading.

241. Folklore and Mythology of Near East. (4) (Formerly numbered Near Eastern Languages 241.) 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 of after 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) (Formerly numbered Near Eastern Languages 290.) Seminar, three hours. Provides students with ability to cope with varieties of manuscripts. S/U or letter grading.

Near Eastern Languages

Lower Division Course

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies 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 B.C. 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. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/NP or letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Language and Literature in Near Eastern Languages and Cultures. (2) Seminar, two hours. Problems and methods of preparing literary texts as exemplary materials in teaching of language and literature in Near Eastern Languages and Cultures. Theory and classroom practice, with individual counseling and faculty evaluation of teaching assistant performances. May not be applied toward M.A. 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 graduate students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Semiotics

Upper Division Courses


140A-140B. Elementary Akkadian. (4-4) Lecture, three hours. Elementary grammar and reading of texts in standard Babylonian.

141. Advanced Akkadian. (4) Lecture, three hours. Advanced Akkadian syntax and grammar; reading of Akkadian historical and literary texts. May be repeated for credit. P/NP or letter grading.

142. Akkadian Literary Texts. (4) Lecture, three hours. Selected readings from Akkadian myths and epics, with introduction to historical tradition of works and literary structure. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Semiotics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty mentor and student. Assigned individual 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 Semiotics. (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

210. Ancient Aramaic Dialects. (4) Lecture, three hours. Requisite: course 130. Reading of surviving inscriptions and papyri. Texts include Old Aramaic inscriptions from Egyptian Aramaic texts, Qumran Aramaic, and Targumic Aramaic. May be repeated for credit. S/U or letter grading.

215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation of Bible and Syriac literature. May be repeated for credit. S/U or letter grading.


230. Seminar: Northwest Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (1) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

241X. Seminar: Akkadian Literature. (1) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. Course for students who participate regularly in class meetings but without the homework required in course 241. May be repeated for credit. S/U grading.

260A. Seminar: Comparative Semitics. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Turkic Languages

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.

102A-102B-102C. Advanced Turkish, (4-4-4) Lecture, three hours. Requisites: courses 101A, 101B, 101C. Continuing study of grammar, conversation, and composition. Readings in modern literature and social science texts. May be repeated for credit. P/NP or letter grading.

111A-111B-111C. Elementary Uzbek, (4-4-4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Uzbek, (4-4-4) Lecture, three hours; laboratory, two hours. Descriptive Uzbek grammar, reading, and analysis of Uzbek literary and folkloric texts. High-style composition and conversation.

M115A-M115B-M115C. Elementary Azeri, (4-4-4) (Formerly numbered 115A-115B-115C.) Same as Iranian M115A-M115B-M115C.) Lecture, five hours. Knowledge of Persian, Turkish, and Iranian helpful. Grammar, competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.

116A-116B-116C. Advanced Azeri, (4-4-4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: placement test. Proficiency-based course in descriptive Azeri grammar. Reading and analysis of Azeri literary and folkloric texts in new writing system. High-style composition and conversation. May be repeated for credit. Letter grading.

160. Turkish Tradition, (4) Lecture/discussion. Preparatory examination 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 literature.


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. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210A. Introduction to Ottoman, (4-4) Lecture, three hours. Introduction to literary language of Ottoman Empire from its foundation in 14th century to its overthrow in 20th century. For students of history, literature, and religion of Balkans, Near East, and Central Asia. Topics include Arabic script as applied to Ottoman; Arabic and Persian elements in grammar and vocabulary. Readings of historical and literary 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.

597. Examination Preparation, (2 to 8) Tutorial, to be arranged. S/U grading.


NEUROBIOLOGY

David Geffen School of Medicine

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Professors

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Nicholas C. Brecha, Ph.D.
Dean V. Buonomano, Ph.D.
Marie-Francoise Chesneau, M.D., Ph.D. (Charles H. Markham Professor of Neurology)
Jean S. de Velis, Ph.D. (Dr. George Tarjan Professor of Mental Retardation), in Residence
Jerome Engel, Jr., M.D., Ph.D. (Jonathan Sinay Professor of Epilepsy)
Jack L. Feldman, Ph.D.
Robert G. Frank, Jr., Ph.D. (Medical History Division)
Mark A. Frye, Ph.D.
David L. Greer, Ph.D.
Ronald M. Harper, Ph.D.
Carolyn R. Houser, Ph.D.
Baljit S. Khakh, Ph.D.
Mayank R. Mehta, Ph.D.
Paul E. Micevych, Ph.D.
Thomas S. Ottis, Ph.D. (Edith Agnes Plumb Endowed Professor of Neurobiology)
Darío L. Ringach, Ph.D.
Felix E. Schweizer, Ph.D.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Neurobiology offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Neurobiology.
Medical History

Upper Division Courses

107A-107B. Historical Development of Medical Sciences. (4-4) Lecture, three hours. Major contributions of medicine and medical personalities from earliest times. P/NP or letter grading. 107A. Contributions of medicine and medical personalities from earliest times through 1650. Subject in the period from 1650 through the 19th century. Illustrated lectures, class discussion, and required readings from selected texts.

M169. History of Neurosciences, (4) Same as Neurobiology M169. Lecture, one hour, discussion, two hours. Development of neurosciences, especially neuropathology and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advice and direction of instructor. Individual reports and conferences. S/U or letter grading.

Neurobiology

Lower Division Course

88. Lower Division Seminar: Special Topics in Neurobiology. (4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines problems and ways that professionals in neurobiology approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

Upper Division Courses


M168. Ideas and Experiments in History of Physiology. (4) (Same as Physiological Science M168.) Lecture, three hours. Interaction of concepts and experiments in physiology, from the early 19th to latter 20th centuries, including heart and circulation, hormones, nutrition and vitamins, brain, spinal cord, and peripheral nervous system, as well as development of physiology as a scientific discipline. Discussion of weekly readings and presentations by students. Letter grading.

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuropathology and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) Formerly numbered Biological Oceanography M171.) Seminar, two hours. Limited to undergraduate fellows in Howard Hughes Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contact 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 anatomy and related objects, including training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M200A.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcortical, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Molecular, Cell, and Developmental Biology M220 and Neuroscience M201.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. 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.

M200D. Motor Systems Neurobiology. (4) Lecture, four hours. Fundamental topics in motor systems neurobiology, including muscle, motor units, and motoneurons. Topics include motor control, reflexes, locomotion, basal ganglia, cerebellum, and eye movements. Letter grading.

M200E. Regulatory, Behavioral, and Cognitive Neurobiology. (6) Lecture, two hours; discussion, two hours; laboratory, two hours. Topics include hypothalamus, cardiovascular system, breathing, food intake and metabolism, water intake and body fluids, endocrine systems, circadian timing, sleep and dreaming, pain and perception, motivation and reward, addiction, cognitive development, object, face, and spatial recognition, learning and memory, language and communication, and thinking and problem solving. Letter grading.

M200F. Cellular Neurophysiology. (4) (Same as Neuroscience M202 and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Physiological Science 111A (or M180A or Physics 6B). Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neuroscience M220, and Psychology M200.) 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 brain circuitry, and imaging. Letter grading.

M220. 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 hemifascia, kain 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 processing and interpretation. Three round table discussions provide forum for further inspiration as well as tackling any questions or difficulties that may arise from laboratories and lectures. S/U grading.

225. Functional Organization of Visual System. (2) Seminar, three hours. Preparation: basic neuroscience course. Recommended: neuroanatomy, neurophysiology, and/or neural systems. 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.


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 functional properties of sensory and motor systems and coordination of motor activity, as well as generation and modulation of neural rhythms. Letter grading.

295. Culture of Neurobiology. (2) (Discussion, one hour. Outside readings, classroom discussions, short written papers, and student presentations on current issues in neuroscience. Topics include networking, mentoring, publishing, grant system, authorship, and career opportunities. S/U 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.

295A-295B. Advanced Topics in Neurobiology. (2-2-2) Seminar, one hour; discussion, one hour. Advanced seminar courses in neuroscience to be offered by different departmental faculty members. Topics are grouped thematically. S/U grading. 295A. Molecular, Cellular, and Developmental Neurobiology. 295B. Sensory and Motor Systems Neurobiology. 295C. Regulatory, Behavioral, and Cognitive Neurobiology.

405. Preparation for Teaching in Anatomical Sciences. (2 to 4) Seminar, to be arranged. Designed for graduate students. Observation and practice of methods of teaching in anatomy, including preparation of material, participation in laboratory instruction, and presentation of review sessions, all with peer and faculty criticism. Gross anatomy, microscopic anatomy, and neuroanatomy subject fields included. May not be applied toward degree requirements. S/U grading.
Neurology

David Geffen School of Medicine

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Scope and Objectives

Neurology is the medical science dealing with the normal and diseased nervous system. Neurological disorders are often associated with significant disability, morbidity, and mortality. Their higher incidence in association with greater longevity of the population, increased awareness, improved diagnostic methods, and other factors place neurological disorders among the major medical problems today. The Department of Neurology and the Reed Neurological Research Center provide means for a 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 further details on the Department of Neurology and a listing of the courses offered, see http://www.neurology.ucla.edu.

Neurology

Upper Division Course

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. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Neuroscience

Interdepartmental Undergraduate Program

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Ellen M. Carpenter, Ph.D., Chair

Faculty Committee

Ellen M. Carpenter, Ph.D. (Psychiatry and Biobehavioral Sciences)
Scott H. Chandler, Ph.D. (Integrative Biology and Physiology)
David L. Glanzman, Ph.D. (Integrative Biology and Physiology, Neurobiology)
Carlos V. Grijalva, Ph.D. (Psychology)
Patricia E. Phelps, Ph.D. (Integrative Biology and Physiology)
Joseph B. Watson, Ph.D. (Psychiatry and Biobehavioral Sciences)
Stephanie A. White, Ph.D. (Integrative Biology and Physiology)

Scope and Objectives

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.

Undergraduate Study

The Neuroscience major is a designated capstone major. Undergraduate students have the option of conducting two terms of independent research within a faculty laboratory 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.

Neuroscience B.S.

Capstone Major

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, 3C, 4BL, or 6A, 6B, and 6C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, 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 at http://www.admissions.ucla.edu/prospect/admissions Transfer Admission Guide for up-to-date information regarding transfer selection for admission.

The Major

The Neuroscience major consists of 11 courses (approximately 47 units). Consult respective departmental or program listings for course descriptions.

Required Core: Neuroscience M101A (with grade of C– or better for Neuroscience majors), M101B, M101C, 102, Chemistry and Biochemistry 153A, 153L. Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

Elective Options: One course from each of the following three options:


Molecular, Cell, and Developmental Neuroscience: Molecular, Cell, and Developmental Biology 162, Neuroscience M130, M145, M148, C177, 180, 181, 182, 186, 191C, Physiological
Science 126, M145, 146, 147, M148, M181, or Psychology M117J.


Capstone Research Options: (1) Neuroscience 101L, or (2) Neuroscience 198A and 198B, or 199A and 199B. Students who select the Neuroscience 101L capstone research option must take four upper division elective courses, with at least one from each of the three elective options. Students who select the Neuroscience 198A and 198B, or 199A and 199B option must take three upper division elective courses, one from each elective option.

No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper division courses taken for the major.

Honors Program

The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis. Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office and at http://www.neurosci.ucla.edu. 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.

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.

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.

Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are prerequisites to the upper division course requirements.

Required Upper Division Courses (approximately 31 units): Neuroscience M101A, M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 199A and 199B, and from any of the three elective options listed under the Neuroscience major.

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.

Neuroscience

See the Neuroscience Interdepartmental Graduates Program for the graduate course offerings.

Lower Division Course

10. Brain Made Simple: Neuroscience for the 21st Century. (4) Lecture, four hours. Preparation: high school background in either biology or chemistry. Not open for credit to students with credit for course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) 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.

Upper Division Courses


M101A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 2, Physics 1B or 1BH or 6B or 6BH. Not open for credit to students with credit for Psychological Science 111A. For Neuroscience and Psychological Science majors, grade of C– or better is required to proceed to Neuroscience M101B or Psychological Science 111B. 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. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A). Neuroscience majors must have grade of C– or better or Psychological Science 111A or Psychology 115. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.


M119N. Visual System. (4) Same as Psychology M119N.) Lecture, two hours. Recommended prerequisite: 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.

M130. Biological Bases of Psychiatric Disorders. (4) Same as Molecular and Developmental Biology M181, Psychological Science M181, Psychiatry M181, and Psychology M117J.) Lecture, three hours. Requisites: course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science 180A or Psychology M117A) or Psychological Science 111A or Psychology 115. Underlying brain systems involved in psychiatric symptoms and neurological disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders and rationales for pharmacological treatments. P/NP or letter grading.

M145. Neural Mechanisms Controlling Movement. (5) Same as Psychological Science M145.) Lecture, four hours. Requisite: course M101A or Psychological Science 111A or M180A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

M148. Neuronal Signaling in Brain. (4) Same as Psychological Science M148.) Lecture, three hours; discussion, one hour. Requisites: courses M101A (or Psychological Science 111A or M180A), M101B (or Psychological Science M180B or Chemistry M153A). Consideration of brain function, with focus on cellular and molecular aspects of brain function. Topics include neuronal excitability and synaptic transmission and function of specific neuronal circuits in auditory pathway, basal ganglia, cerebellum, hippocampus, and neocortex. Letter grading.


C177. Drugs of Abuse from Neurobiology to Policy and Education. (4) Lecture, four hours. Enforced prerequisite: course M101A. Course ranges from synapse to society. Provides intensive didactic on current neuroscience-based understanding of 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 these issues to general public. Concurrently scheduled with course C277. Letter grading.
178. Human Electroencephalography and Evoked Potentials in Research and Clinical Diagnosis. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for courses 191A, 191B. Emphasis on human electroencephalogram (EEG) and various forms of sensory-evoked potentials. Introduction to number of experimental paradigms that allow for recording different brain signals from brainstem to cortex. Letter grading.


180. Genetic, Molecular, and Genomic Approaches to Neural Development and Disease. (4) Seminar, three hours. Enforced requisite: courses M101A, M101B. Not open for credit to students with credit for course 191C, seminar 1. In-depth study of genetic, molecular, and genomic approaches to studying nervous system development and disease. Emphasis on current technologies used to generate mouse models for genetic and phenotypic analysis. Review of techniques for studying development and disease. Integration of genetic models for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organism considered as well. Letter grading.

181. Cellular and Molecular Mechanisms of Learning and Memory. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191C, seminar 2. Cellular models of learning and memory. Genetic and molecular approaches to learning and memory. Learning and memory deficits in neuropsychiatric diseases. LTP and LTD models. Letter grading.


186. Neural Stem Cells: Biology, Diseases, and Therapies. (4) Lecture, two and one-half hours. Preparation: background in biology and biochemistry. Enforced requisite: courses M101A, M101B. Designed for third- and fourth-year Neuroscience majors. Comprehensive coverage of stem cells of nervous system development and adulthood, involvement of stem cells in diseases (e.g., brain tumors, Alzheimer’s, Parkinson’s), and use of stem cells for therapy. P/NP or letter grading.

191A-191B-191C. Variable Topics Research Seminars: Neuroscience. (4-4-4) Seminar, three hours. Topics on one or more aspects of neuroscience. Reading, discussion, and development of culminating project. May be applied as elective only in specific area of group 2. Each course may be repeated once for credit. P/NP or letter grading. 191A. Behavioral and Cognitive Neuroscience. Requisite: courses M101A, M101B. Emphasis is both on mechanisms of neural function and the biological basis of disease. An emphasis is placed on current technologies used to generate mouse models for genetic and phenotypic analysis. Review of techniques for studying development and disease. Integration of genetic models for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organism considered as well. Letter grading. 191B. Practicum in Neuroanatomy for Undergraduate Assistants. (2) Formerly numbered 192. Seminar, three hours; laboratory, one hour. Requisites: courses M101A and 102, with grades of A, limited to senior Neuroscience majors. Training and supervised practicum in neuroanatomy for undergraduate assistants. Students assist faculty members and graduate teaching assistants in anatomy laboratory only. May not be applied toward elective requirements and may not be repeated for credit. P/NP or letter grading.

192B. Project Brainstorm: Neuroscience K-12 Outreach. (4) Tutorial, four hours. Enforced requisite: limited to juniors/seniors. Course by supervised by faculty and teaching assistant advisers. Project Brainstorm is K-12 science education outreach program of Brain Research Institute (BRI) and Neuroscience Institute. Preparation of classroom materials, science fair field trip, and contact with local schools. Letter grading.

192C. Drug Abuse and Society: Conveying Concepts to High School Students. (4) Seminar, four hours. Pre-requisite: courses M101A, M101B. Limited to seniors/juniors. Course by supervised by faculty. Preparation of students to give accurate, knowledgeable, and age-appropriate lectures and contribute to drug abuse to students at local high schools. Designed as follow-up to course C177 where students learned didactic material on mechanisms of action and transnational aspects of drugs of abuse. Students meet on regular basis with supervisors and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated twice for credit. P/NP grading.

193. Journal Club Seminars: Current Research in Brain Development and Regeneration. (1) Seminar, one hour. Requisite: course M101B. Limited to undergraduate who have taken courses 99, M101A. Preparation of students to give accurate, knowledgeable, and age-appropriate lectures and contribute to drug abuse to students at local high schools. Designed as follow-up to course C177 where students learned didactic material on mechanisms of action and transnational aspects of drugs of abuse. Students meet on regular basis with supervisors and provide periodic reports of their experience. May not be applied toward major requirements. May be repeated twice for credit. Letter grading.

198A. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisites: courses 99, M101A. Limited to neuroscience honors program students. Directed independent research involving extensive reading and development of honors thesis or comprehensive examination. Direct supervision of faculty member. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 198B). 198B. Honors Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Requisite: course 198A. Continued reading and research that culminate in honors thesis under direct supervision of faculty member. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 198B). 199A. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Enforced requisite: courses 99, M101A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B, 199C may be applied toward major. Individual contract required. Letter grading. 199C. Continued Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum in laboratory. Enforced requisite: course 198B or 199B. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued reading and research that culminate in report under direct supervision of faculty mentor. May not be applied toward major. May be repeated for credit. Individual contract required. Letter grading.

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Felix E. Schweizer, Ph.D. (Neurobiology, Psychiatry and Biobehavioral Sciences)

Scope and Objectives
The interdepartmental neuroscience Ph.D. 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 focusing at one or two analytical levels nevertheless learn to appreciate the methods and advantages of other levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.
Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Divisions, available at the Graduate Division website, http://grad.ucla.edu/gsasa.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Neuroscience Program offers the Doctor of Philosophy (Ph.D.) degree in Neuroscience.

Neuroscience
Graduate Courses

**M201. Cell Developmental, and Molecular Neurobiology:**
(Same as Molecular Cell, and Developmental Biology M220 and Neurobiology M200B.) 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 signaling. Letter grading.

**M202. Cellular Neurophysiology:**
(Same as Neurobiology M200F and Physiology Science M202.) Lecture, three hours; discussion, two hours. Requisites: Physiology Science 111A (or M180A or Physics 88B, 186). Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

**M203. Neuroanatomy: Structure and Function of Nervous System.**
(Same as Bioengineering M263.) Lecture, three hours; discussion/laboratory, three hours. Anatomy of central and peripheral nervous system at cellular histological and regional systems levels, with emphasis on contemporary experimental approaches to morphological study of nervous system in discussions of circuitry and neurochemical anatomy of major brain regions. Consideration of representative vertebrate and invertebrate nervous systems. Letter grading.

**M204. Synapses, Cells, and Circuits.**
(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.**
(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 nervous systems. Letter grading.

**M206. Neuroengineering.**
(Same as Bioengineering M260 and Electrical Engineering M255.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 6B. 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 recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation, and drug delivery) and computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

(Lecture, two hours. Designed for graduate students. Debates related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals and humans in biomedical research, conflicts of interest, 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 issues. The topic may be taken twice for credit and applied toward neuroscience graduate requirements. S/U grading.

M220. Biology of Learning and Memory.
(Same as Molecular, Cellular, and Integrative Physiology M200G, Neurobiology M200G, 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, cellular and integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neurobiology.
(Same as Neurobiology M200C.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory systems. S/U grading.

(Same as Physiological Science M210 and Physiology M210.) Lecture, four hours; discussion. Discussion of cellular and molecular mechanisms of functional connectivity, and how these mechanisms contribute to the function of neural ensembles. Letter grading.

M233. Mechanisms and Relief of Pain.
(Same as Oral Biology M204.) Lecture, two hours. Advanced treatment of neuroma, neuropathic pain, and biochemical bases of pain perception. Topics include classical pain theories, pain receptors and pathways, severity and frequency of pain modulating mechanisms, pharmacological basis for treatment of pain. S/U or letter grading.

240. Phenotypic Measurement of Complex Traits.
(Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding genetic behavior by examination of levels of phenotype expression across systems (cell, brain, organism), across species (invertebrate, fly, mouse, human), and throughout development across varying environmental milieus. Using examples from human disorders such as schizophrenia and Alzheimer’s disease, linking of conserved mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders. Letter grading.

250. Neural Development and Repair.
(Lecture, four hours. Specific brain regions, development and repair. Each module offers different research topic and provides perspective on its relevance to human diseases, treatments, and unmet needs for future research. Letter grading.

255. Functional Organization of Behavior.
(Lecture, two hours. Changes in neuronal properties supporting changes in learned behavior. Different types of learning. Role of neurotransmitters and second messengers in changing ion channels of neurons to support associative learning versus long-term potentialization of neurotransmission. S/U or letter grading.

M256. Advanced Magnetic Resonance Imaging.
(Same as Biomedical Physics M286 and Psychiatry M256.) Lecture, fifty hours. Start with basic principles, presentation of physical basis of magnetic resonance imaging (MRI), with emphasis on developing advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.


M273. Neural Basis of Memory.
(Same as Psychobiology M270.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurobiological 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 Neuroscience.
(Lecture, one hour; laboratory, one hour. Preparation: background in molecular and cellular biology. 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 from Neurobiology to Policy and Education.
(Formerly numbered CM277.) Lecture, four hours. Enforced requisite; course M101A. Course ranges from synapse to society. Provides intensive didactic on current neuroscience basis for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention, and public policy. Emphasis on communication of course materials to general public. Concurrently scheduled with course C177. Letter grading.

M284A-M284B. Principles of Neuroimaging I, II.
(Same as Psychobiology M284A-M284B, and Psychology M288A.) Lecture, four and one-half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requirements: Psychiatry 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 reso-
Neurosurgical disorders of the central, peripheral, and autonomic nervous systems, including their support structures and vascular supply, (2) the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis, and (3) 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 further details on the Department of Neurosurgery, see http://neurosurgery.ucla.edu.

Neurosurgery
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.

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Paul M. Macey, Ph.D., in Residence, Associate Dean for Information Technology and Innovations
Kris McLaughlin, D.N.P., A.P.R.N., F.A.A.N., Assistant Dean for Innovative Clinical Education

Professors

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Professors Emeriti

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Stacy E. Green, N.P.
M. Jill Jordan, R.N.C., M.S.N.
Kellie T. Keil, R.N., M.S.N., F.N.P.-C.
Amy S. Lohmann, R.N., M.S.N., N.P., C.N.S.
Laurie A. Love-Bibbero, R.N., M.S.N., F.N.P.
Young Kee Markham, R.N., M.N., G.N.P.-C.
Elizabeth A. McPharland, R.N., M.S., C.P.N.P.
Deborah A. Rice, R.N., M.N., F.N.P.-C.
Joan R. Schleper, R.N., M.S.N., G.N.P.
Jane T. Tokunow, R.N., M.N., A.C.N.M.
Inese L. Verzemnieks, R.N., Ph.D.

Adjunct Professors

Mary Lynn Brecht, Ph.D.
Mary K. Cadogan, R.N., Dr.P.H., G.N.P.
Janet C. Mentes, R.N., Ph.D., G.N.P.
Mary S. Woo, M.D.

NEUROSURGERY
David Geffen School of Medicine

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Chair
Neil A. Martin, M.D. (W. Eugene Stern Professor of Neurosurgery)

Scope and Objectives

Neurosurgery is a discipline of medicine that provides (1) 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 support structures and vascular supply, (2) the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis, and (3) the operative and nonoperative management of pain.
Adjunct Associate Professors
Catherine L. Carpenter, Ph.D.
Pamela L. Davidson, Ph.D.
Colleen K. Keenan, R.N.C., Ph.D., W.H.C.N.P.

Adjunct Assistant Professors
Nancy T. Blake, R.N., Ph.D.
Karabi Nandy, Ph.D.
Kris McLaughlin, D.N.P., A.P.R.N., F.A.A.N.
Mary M. Marfisee, M.D.

Nursing B.S. Prelicensure
Capstone Major
The focus of the preliminister 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.

Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for freshmen students and transfer students at the junior level. Freshman applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intermediate 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. Diversity life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated for all applicants. Consideration is also given to students who are socially, economically, and educationally disadvantaged. Completed applications should reflect clearly identified career goals and documentation of potential for nursing practice.

Preparation for the Major
Required: Chemistry and Biochemistry 14A, 14B, 14C, Communication Studies 1 or 10, Life Sciences 2, 3, Mathematics 3A or 31A, Microbiology, Immunology, and Molecular Genetics 10, Nursing 3, 10, 13, 20, 50, 54A, 54B, Psychology 10.

Transfer Students
Transfer applicants to the Nursing major with 80 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.

The Major
Required: Biostatistics 100A, Nursing 115, 150A, 150B, 152W, 160, 161, 162A through 162D, 164, 165, 168, 171, 173, 174, and completion of a capstone senior scholarly project (course 169). Transfer students must complete Nursing 10, 20, 50, 54A, and 54B on entry. Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit.

The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing. Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable).

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The School of Nursing offers the Master of Science in Nursing (M.S.N.) degree and the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Nursing. A concurrent degree program (Nursing M.S.N./Management M.B.A.) is also offered.

Nursing
Lower Division Courses
3. Human Physiology for Healthcare Providers. (S)
4. Introduction to Human Anatomy. (5)
5. Introduction to Nursing and Social Justice I. (2) Lecture, two hours. Within context of history of nursing, introduction to practice of nurses, including role of advocacy. Discussion of effective use of self as professional nurse in relation to ethics, cultural competence, and human diversity. Introduction to ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.

10. Introduction to Nursing and Social Justice II. (2) Lecture, two hours. Advanced discussion on history of nursing, 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.

50. Fundamentals of Epidemiology. (4) Lecture, three hours; laboratory, three hours. Epidemiology focuses on distribution and determinants of health-related states or events in specified populations. Fundamentally, epidemiology seeks to control health problems in communities and institutions. Letter grading.

54A. Pathophysiology I. (3) Lecture, three hours. Preparation: human physiology course taken within past five years. Designed to provide students with...
basic understanding of pathophysiological changes that occur within internal environments of individuals. Understanding these alterations is basic to providing quality nursing care and prevention of system variations across lifespan. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Requisite: course 54A. Designed to provide students with understanding of pathophysiological changes that occur within internal environments of individuals. Presence of dysfunction or disease of selected systems provided as rationale for nursing diagnosis and therapeutic interventions. Letter grading.

Upper Division Courses

105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlative approach to anatomy and physiology of human body. P/NP or letter grading.

150A. Theoretical Foundations of Nursing B.S. Role and Professional Nursing Practice, Lecture/Clinical Skills Practicum. (4) Lecture, three hours; laboratory, three hours. Introduction to practice of professional nursing as theory-based goal-directed method 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 as clinical decision-making strategies essential to practice of professional nursing. Characteristics and roles of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.

150B. Theoretical Foundations of Nursing B.S. Role and Functions of Professional Nursing Practice. (4) Lecture, four hours; laboratory, three hours. Requisite: course 150A. Continuation of course 150A. Expansion of student knowledge and 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 as clinical decision-making strategies essential to practice of professional nursing. Characteristics and roles of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.

152W. Human Development/Health Promotion in Culturally Diverse Populations. (5) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Limited to nursing students. Introduc tion to principles and theories of human health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Priorities in nutrition and reproductive health, including adolescent health, pregnancy, family planning, and parenting; well-child care, school-age health, and chronic illness prevention strategies for young- and middle-aged adults; elderly who live independently in communities. Analysis of influence of overarching political, societal, and government systems within U.S. Satisfies Writing II requirement. Letter grading.

C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Not the same as course C155 prior to Fall Quarter 2011.) 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 exploration and through analyzing historical and current issues, gain perspective on the role of nurses and nursing process as a global system for health promotion and disease prevention. P/NP or letter grading.

160. Continuation of course 150A. Expansion of clinical understanding of 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 as clinical decision-making strategies essential to practice of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.

160A. Continuation of course 150A. Expansion of student knowledge and 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 as clinical decision-making strategies essential to practice of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.

160B. Theoretical Foundations of Nursing B.S. Role and Professional Nursing Practice. (4) Lecture, three hours; laboratory, three hours. Requisite: course 150A. Continuation of course 150A. Examination of nursing assessment and management of common health problems that adults experience. Theory content in basic assessment, health history, and diagnostic reasoning for selected health problems. Letter grading.


162B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Enforced requisite: course 162A. Examination of pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of adult patients/clients with complex illness, including medical-surgical, health history, and diagnostic reasoning skills, with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, stress and adaptation, and diagnostic reasoning. Nursing process, ethical principles, clinical reasoning, and decision-making strategies essential to practice of professional nursing. Development of caregiver, teacher, and collaborator roles in learning experiences in nursing skills laboratory and clinical settings. Letter grading.


165. Pediatric Nursing. (5) (Formerly numbered 165B) Lecture, three hours; clinical, three, six hours. Enforced requisite: courses 162A, 162B, 162C. Nursing assessment and management for selected acute and emergent problems in infants, children, and adolescents, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to childbearing families, with application of nursing process, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience within setting of multidimensional team, with focus on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating care of infants, children, and adolescents. Intermediate-level assessment, health maintenance, and management of symptoms in this population. Letter grading.

sues in workplace. Emphasis on integration of all professional roles and behavior, application of research, and leadership-model development for transition to professional roles. Preparation for National Council Licensure Examination (NCLEX), Letter grading.


171. Public Health Nursing. (6) (Formerly numbered 171C.) Lecture, three hours; clinical, nine hours. Requisites: courses 161, 162D, 164, 165 (or 461), 462, 464, 465D. Theoretical content focuses on population-based approach to public health nursing in relation to health promotion and disease prevention at level of communities, other large population aggregates, and systems. Clinical practicum concentration on public-health-based public health in community, diverse settings, including health departments, health policy institutions, and public service agencies. Health promotion and disease prevention at level of community, focus on vulnerable populations, and systems, both domestically and internationally. Letter grading.

173. Introduction to Research. (4) Lecture, four hours. Introduction to planning research project based on simplified research design. Specific components of research activities analyzed: specific aims and study purposes, variables definition, sample selection, data collection tools, data analyses, and ethical concerns in research studies. Critique of research reports. P/NP or letter grading.

174. Physical Assessment. (4) Lecture, three hours; laboratory, three hours. Designed to provide in-depth review and synthesis of physical assessment skills and knowledge covering lifespan. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

175. Physical Assessment for Advanced Practice. (4) Lecture, three hours; laboratory, three hours. Comprehensive review and synthesis of physical assessment skills and knowledge covering lifespan and in diverse settings. Emphasis provided to general health status and specific complaints, as well as detailed physical examination techniques. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

188. Special Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Nursing majors. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

190. Research Colloquium in Nursing. (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.

193. Journal Club or Speaker-Seminar Series: Nursing. (1) Seminar, two hours; outside study, four hours. Limited to undergraduate students. Discussion of readings selected from current literature of field or of topics related to guest speaker series. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Nursing. (2 to 4) Tutorial, four hours per week per unit. Limited to jun-ior/senior Nursing students. Emphasis on research apprenticeship upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Nursing. (2 to 4) Tutorial, one hour. Limited to junior/senior Nursing majors. Indivi-dual 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 Study in Nursing. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project presented for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Health-Related Quality of Life. (4) Lecture, two hours. Theorizations of health-related quality of life as an outcome of disease, treatment, and style of care. Analysis of meaning, dimensions, predictors, measures, ethical dilemmas, cultural diversity issues, and foundations of health-related quality of life. Letter grading.

202. Philosophy of Nursing Science. (4) Lecture, four hours. Exploration of concepts of importance re-lated to history of philosophy, history of science, and philosophy of science as context for study of philos-ophy of nursing science. Genealogies of thought that underpin assumptions about knowledge and knowl-edge development in relation to discipline of nursing and of science. Contemporary schools of philosophy and scientific reasoning. Contemporary schools of thought (modern and postmodern) analyzed, with em-phasis on their philosophical and historical roots in re-lation to nursing scholarship and nursing science. Letter grading.

203A. Basic Statistics and Fundamentals for Analy-sis. (4) Lecture, four hours. Preparation: one upper division statistics course. Introduction to applied statis-tics, including design, analysis of variance, corre-la tion techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of designing management using statis-tical package programs. Letter grading.


204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 173 or equivalent upper division basic research meth-odology course. Complex research designs and analy-sis of multiple variables, and research utilization. Emph-asis on data techniques for control of variables, data analysis, and interpretation of results. Analysis in depth 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 how these apply to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Re-search. (4) Lecture, four hours. Requisite: course 200. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strate-gies for data collection (interviews, participant observa-tion, focus groups), data analysis, and data inter-pretation. Scientific rigor and ethical concerns for re-search with human participants critically examined. Letter grading.

205B. Advanced Qualitative Research Methodolo-gy I. (4) Lecture, four hours. Requisites: course 205A, submission of OPRS application for small pilot study in fall of second year. Analysis of symbolic inter-actionism and pragmatism as foundation for study of grounded theory methodology as guide to study design development, including sampling plan, inter-views strategies for data collection, and basic coding. Exploration of self-reflexivity and ethics in relation to en-trée to field, recruitment of pilot study participants, interviews, and preliminary data via ana-lytic, theoretic, and reflective memos based on pilot study data collected as part of course. Letter grading.

205C. Advanced Qualitative Research Methodolo-gy II. (4) Lecture, four hours. Requisite: course 205B. Advanced techniques for data collection and analysis of qualitative data. Expansion on traditional grounded theory analysis procedures by learning and applying situational analysis and constructivist grounded theory techniques to analysis of data. Devel-opment of conceptual formulation (or grounded theory) of student-selected phenomenon based on pilot study data collected and analyzed as part of course. Letter grading.

206. Nursing Theory Development. (4) Lecture, four hours. Critical examination of theoretical and concep-tual thinking in nursing and issues that continue to in-fluence development of nursing knowledge and nursing science. Focus on evaluation of qualitative and evalua-tive skills fundamental to development of theory in nursing and integral to use of theory in nursing re-search. Letter grading.

207. Quantitative Research Designs of Clinical Phenomena. (4) Lecture, three hours; discussion, one hour. Introduction to wide array of quantitative re-search designs for testing clinical nursing phe-nomena. Emphasis on dynamic interaction between research process and theory, as well as on appro-priate use of experimental, quasi-experimental, and correlational designs among diverse populations. Ap-proaches for evaluation of research designs, analysis of research designs, with analysis of related threats to validity of each design. Letter grading.


209. Human Diversity in Health and Illness. (4) (Formerly numbered C209) Lecture, four hours. Human diversity in response to illness that nurses di-agnostically and treat, especially those of human be-lief systems associated with diverse orientations re-lated to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210. Nursing Science. (4) (Formerly numbered 210A) Lecture, four hours. Designed for Ph.D. students. Ex-ploration of phenomena of interest to nurse scholars from past to present and future in relation to proposed domains of nursing (person, environment, health, and nursing). Investigation of state of science in nursing, with special focus on health service, biological, vul-nerable populations, and biobehavioral aspects of nursing re-search. Integration and synthesis of current and his-torical scholarly findings of particular phenomena in literature to identify meaningful gaps in knowledge and directions for future research. Letter grading.

211. Theoretical Foundations of Women's Health-care during Reproductive Years. (2 to 4) Lecture, three hours; discussion, one hour. Theory and re-search on assessment and management of women's health issues during reproductive years. Clinical topics include gynecology, family planning, preg-nancy, and postpartum care, with emphasis on health promotion of women during reproductive years in primary care settings. Letter grading.

212. Health-Related Family Theory. (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; consider-ation of cross-cultural views of families as well, identifi-cation of limitations of current theory and research related to family study and applicability of current knowledge to various problems encountered in care of families. Letter grading.


216A-218. Adult/Gerontology Concepts for Advanced Practice Nurses in Acute Care I, II, III. (4-4-4) Lecture, four hours. Requisite: courses 200, 231. Enrolled corequisite for course 216A: course 224. Course 216A is enforced requisite to 216B, which is enforced requisite to 216C. Assessment and management of health problems affecting adult/gerontology population from late adolescence to senescence in healthcare settings. Synthesis of knowledge from advanced courses in pathophysiology, pharmacotherapeutics, health promotion, and evidence-based psychosocial care and cultural con-straints. Letter grading.


218C. (4) Lecture, four hours. Requisite: course 218B. Project management, organizational communication, governance, development and change, diverse rela-tionships within organizations, risk management, lia- bility, and ethics of administration decision making. Emphasis on issues affecting local, national, and inter-national healthcare management. Letter grading.


219A. Essentials of Accounting and Budgeting in Healthcare Organizations. (4) Lecture, four hours. Theories of management, organization, and administra-tion presented in relation to techniques of account-ing, budgeting, finance, and healthcare econo-mics. Focus on definition of terms and concepts, followed by practical applications within variety of healthcare settings. Letter grading.


220. Theories of Instruction and Learning in Nurs-ing. (3) Lecture, two hours. Theories of learning, cur-riculum development, teaching methods, assessment and techniques of evaluation. Examination of edu-ca-tor role of advanced practice nurse in variety of set-tings and with diverse cultural and socioeconomic groups. Opportunities to develop advanced practice tech-niques in computer-based information systems and development of instructional aids. Letter grading.

221. Qualitative Research Design and Methodol-ogy for Indigenous Communities. (5) Same as American Indian Studies M202 and Health Policy and Management M202.) Seminar, three hours. Introduction to some key theoretical themes in American In-dian studies and exploration of methods that can be used to address critical healthcare issues in Can-canian societies, cultures, languages, and other issues. Quantitative methods (design, appropriate use), with emphasis on qualitative research methods, ethics, and critical issues. Coursework includes cross-cultural research in American Indian country. Design of research and explo-ration of feasibility of researching topics. Letter grading.


225A. Advanced Pharmacology I. (3) Lecture, two hours. Course 225A is enforced requisite to 225B. Basic principles of medication selection, safety and effica-cy, and advanced pharmacology for clinical prac-tice. Coursework is applicable to prescriptive author-ity. Letter grading.

225B. Advanced Pharmacology II. (2) Lecture, two hours. Requisite: course 225A. Knowledge of and skills in pharmacology necessary for care of cli-ents/patients with stable acute or chronic conditions. Focus on major drug classes and their mechanisms of action, pharmacokinetics, adverse effects, and clinical uses. Letter grading.

226. Seminar: Aging Research. (1 to 2) Seminar, two hours. Preparation: completion of first-year course-work. Discussion and conceptualization of gerontologi-cal nursing concepts within context of specialty areas of research (acute care, oncology, occupational health, and gerontological nursing). Provides opportu-nity for students to integrate gerontological nursing concepts into their evolving dissertation research and to examine state of science in their area of focus. Core faculty from all specialty areas participate in dis-cussions. May be repeated for maximum of 10 units. SU/G grading.

227. Ethnogeriatric Nursing. (4) Lecture, three hours. Requisite: course 209. Identification of unique content related to minority aging using Giger and Davidhizar frameworks of transcultural nursing viewed as culturally competent practice that is both client centered and research fo-cused. Exploration of difference between Eurocentric lens and ethnotheoretic lens in providing nursing care to ethnically and racially diverse elders. In-depth ex-amination of issues related to conducting research with elders who are racially and ethnically diverse in variety of healthcare settings. Study designs for conducting research, issues surrounding informed con-sent of minority elders, and data collection tech-niques, including critique and use of data collection instruments used in community and long-term care settings, behavioral observations, interviews, and sur-veys. Letter grading.

228. Research Methods for Aging Populations. (4) Lecture, three hours. Requisites: courses 204, 205A, 207. Corequisite: course 208. In-depth examination of issues related to conducting research for a variety of healthcare settings. Study designs for con-ducting research in community and long-term care settings, issues surrounding informed consent, plan-ning for mortality and morbidity data collection, tech-niques for frail elders, including use of assessment tools used in community and long-term care settings, behavioral observations, interviews, and surveys, and statistical analysis techniques related to missing data, longitudinal data analysis, clustering, and repeated measures. Letter grading.


230A-230B. Advanced Pathophysiology I, II. (3-2) Lecture, three hours (course 230A) and two hours (course 230B). Requisite: course 3 or equivalent taken within past five years. Course 230A is requisite to 230B. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of these in major body systems. Analysis of manifestations of and responses to pro cesses of cellular and molecular pathology at extra-cellular, systemic, and tissue levels. Letter grading.

231. Pathobiology for Advanced Practice Nurses. (4) (Not same as course 231 prior to Fall Quarter 2010.) Lecture, four hours. In-depth examination of pathophysiological processes that underlie human ill-ness and disease, with detailed study of these in major body systems. Analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, systemic, and human levels with implications for advanced practice nursing. Letter grading.

232. Human Responses to Aging and Chronic Ill-ness. (2 or 4) Lecture/discussion, four hours. Patho-physiologic 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 Ill-ness. (2 or 4) Lecture/discussion, four hours. Biopsys-chosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addres-sing pathophysiologic processes and common health problems. Implications for advanced practice in gerontological nursing. Letter grading.

234. Essential Theoretical Foundations of Primary Care of Children. (4) Lecture, four hours. Requisite: course 200. Preparation of family nurse practitioners to assume responsibility for health promotion and ill-ness prevention, and maintenance and management of common developmental, behavioral, acute, and chronic health problems of infants, children, and adoles-cents in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clin-ical findings, differential diagnosis, pharmacologic and treatment management, behavioral, and pre-ventive and patient education measures. Examination of primary child health delivery model reliant on evi-
models of research utilization. Emphasis on applica-
tion of relevant theories to clinical nurse specialty practice roles in healthcare systems through case-
study analysis, with focus on application to clinical
practice settings which include culturally diverse pop-
ulations. Letter grading.

249. Meeting Health-Related Needs in Under-
served Populations. (2) Examina-
tion of systematic barriers within healthcare set-
tings that limit access to those in greatest need of cul-
turally appropriate interventions. Unnet health needs issues in relation to the compromised qual-
ity of life among underserved, low income, uninsured, marginalized populations. Analysis of cur-
rent evidence-based strategies and interventions de-
signed to address these problems and to prove outcomes in culturally competent manner. Pre-
sentation of context of healthcare financing, limited access, and public policy. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (5) Emphasis on five key interrelated issues of culture, social, legal, and political forces in the U.S. form background for study of ethical issues related to role of nurses as advocates for social justice in contempo-
rary society today. Analysis situated within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of evolution of professional nursing within healthcare arenas in re-
lation to ethical issues related to social, cultural competence, and human diversity. Letter grading.

252. Health Promotion/Risk Reduction Systems: Population Level. (4) Lecture, four hours. Introduc-
tion to primary prevention strategies as they pertain to health and wellness across lifespan, using popula-
tion-based approach to nursing care of diverse pop-
ulations. Priorities in nutrition; reproductive health, in-
cluding issues related to contraception and prevention; well-child care, school-age health, and chronic illness prevention strategies for young- and middle-aged adults and elderly who live independently in commu-
nities or within institutions. Analysis of influence of overarching political, societal, and governmental sys-
tems within U.S. Letter grading.

254A. Theoretical Foundations of M.S.N./MECN Role and Fundamentals of Professional Nursing Practice/ Clinical Skills Practicum I. (4) Lecture, three hours; laboratory, three hours. Practice of pro-
fessional nursing as theory-based goal-directed method for assisting patients to meet basic human needs. Emphasis on practice concepts with em-
phasis on application of relevant theories to master’s entry clinical nurse (MECN) practice roles in health-
care systems. Introduction to concepts of communi-
cation, documentation, and collaborative leadership, interpersonal relationships, cultural compe-
tence, and nursing process as clinical decision-
making strategy essential to practice of professional nursing. Learning experiences in nursing skills labora-
tory and in clinical settings. Letter grading.

254B. Theoretical Foundations of M.S.N./MECN Role and Fundamentals of Professional Nursing Practice/Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Enforced requi-
site: course 254A. Expansion of student knowledge of practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs. Emphasis on application of relevant theo-
ries to master’s entry clinical nurse (MECN) practice roles in healthcare systems. Expansion of concepts of communication, documentation, and collaboration, interpersonal relationships, cultural competence, and nursing process as clinical decision-
making strategy essential to practice of profes-

tional nursing. Learning experiences in nursing skills labora-
tory and in clinical settings. Letter grading.

255. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Not the same as course C255. Lecture, 12 hours. Emphasis on application of theories, issues, debates, and pedia-
gy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Con-
currently scheduled with course C155. Letter grading.


Corequisite: course 225A. Screening and early detec-
tion of illness to prevent chronic or acutely deterio-
rating illness. Expanding on concepts of health and health promotion within the framework of the pro-
cession of nursing role in providing care to individ-
uals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or progression of mortality. Discussion of problems of individuals within context of family, social and com-
munity systems, and interdisciplinary healthcare sys-

264. Professional Issues in Nursing. (3) Lecture, three hours. Emphasis on clinical reasoning and decision making, specifically how to formulate healthcare policy, how to affect po-

titical process, and stakeholder involvement in policy decision making and implementation. Development of understanding of increased levels of public, govern-
mental, and third-party participation in and scrutiny of shape and direction of healthcare system. Current mandated assembly bills and their effect on nursing. Concepts associated with escalating healthcare costs and cost containment efforts instituted by private and government sectors, as well as by individual health-
care institutions. Letter grading.

266. Healthcare Systems/Organizations. (3) Lect-
ture, three hours. Analysis of evolving healthcare de-

delivery systems in terms of effects of policy, economic factors, structure and financing of organizations, characteristics of patients/populations, and services provided, all of which shape reform in relation to role and practice of clinical nurse leaders. Letter grading.

267. Healthcare Policy. (3) Lecture, three hours. Analysis of healthcare policies and how policies im-
pact clinical practice and healthcare delivery. Discus-
sion of concepts related to policymaking, specifically how to formulate healthcare policy, how to affect po-

titical process, and stakeholder involvement in policy decision making and implementation. Development of understanding of increased levels of public, govern-
mental, and third-party participation in and scrutiny of shape and direction of healthcare system. Current mandated assembly bills and their effect on nursing. Concepts associated with escalating healthcare costs and cost containment efforts instituted by private and government sectors, as well as by individual health-
care institutions. Letter grading.

268. Systems (Hospital Unit): Individual Level. (4) Lecture, four hours. Emphasis on systems and concepts of changing healthcare delivery models, delegation, and team strategies.

269. Quality Improvement and Population-Based Quality of Practice. (4) Lecture, four hours. Emphasis on systems and concepts of changing healthcare delivery models, delegation, and team strategies. Emphasis on quality management, ad-
verse outcomes, evidence-based clinical and cost-
control decision making, patient safety and risk reduc-
tion, resource management, and external impacts on
quality control. Letter grading.

2M273. Advanced Seminar: Medical Anthropology.
(2 to 4) (Same as Anthropology M263Q, Community
Health Sciences M244, and Psychiatry M273.) Sem-
inar, three hours. Limited to 15 students. Examination
of interrelationships among society, culture, ecology, 
health, and illness. Bases for written critical analysis 
and class discussion provided through key theoretical 
works. S/U or letter grading.

288. Variable Topics in Nursing. (4) Lecture. 
Three hours; discussion and seminar. Variable topics; consult
Schedule of Classes for topics to be offered in spe-
cific term. May be repeated for credit. S/U or letter 
grading.

2M290A-M290B-M290C. Child Abuse and Neglect.
(2-2-1) (Same as Community Health Sciences
M245A-M245B-M245C, Dentistry M300A-M300B-
M300C, Education M217G-M217H-M217I, Law 
M281A-M281B, Medicine M290A-M290B, and Social
Course M290A is requisite to M290B, which is requi-
ted to M290C. Intensive interdisciplinary study of child 
physical and sexual abuse and neglect, with lectu-es by faculty of Schools of Dentistry, Law, Medicine, 
Nursing, and Public Health and De-
partments of Education and Psychology, as well as by 
relevant public agencies. Letter grading.

295A. Nursing Science Seminar. (1) Seminar, one 
hour. Introduction to nursing research methods, activ-
ties, and programs within specialty strands at UCLA 
School of Nursing: biobehavioral sciences, biologic 
sciences, health services, and health economics. 
Exemplar work of UCLA nurse scholars highlighted. 
Overview of nursing research at UCLA and potential research opportunities for doc-
torates. S/U grading.

295B-295C. Nursing Science Seminars. (2-2-2) 
Seminar, one hour. Enforced requisite: course 295A. 
Introduction to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements and strategies for extramural and specialty orga-
nization funding sources, and evaluation criteria identified. 
Role of external funding to facilitate doctoral and postdoctoral research, research activities, and professional development. S/U grading.

M296. Interdisciplinary Response to Infectious Disease 
Emergencies: Nursing Perspective. (4) 
(Same as Community Health Sciences M256, Medi-
cine M256, and Oral Biology M256.) Lecture, three 
hours; discussion and seminar. Designed to instill in pro-
fessional students ideas of common emergency 
health problems and coordinated response, with spe-
cific attention to bioterrorism. Examination of tools 
to help students detect and intervene in infec-
tious disease emergencies. Interdisciplinary sessions 
also attended by students in Schools of Dentistry, 
Medicine, and Public Health during weeks two 
through five. Letter grading.

299A. Nursing Research Seminar. (2) Seminar, two 
hours. Seminar to assist students who are beginning 
careers in scientific research to understand issues of 
responsible conduct of research and protection of re-
search subjects. S/U grading.

299B-299C. Nursing Research/Laboratory Experi-
ences. (4-4) Seminar/discussion, one hour; research/ 
laboratory, three hours. Requisites: courses 202, 206. 
Lectures and research/laboratory-based experiences 
to assist students to prepare for careers as scientists, 
with focus on research methodology and mentorship. 
S/U grading.

299D. Nursing Education Seminar. (2) Seminar, two 
hours; discussion, one to two hours. Seminar to as-
sist students to prepare for careers in academic set-
gings, with focus on teaching. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inar, to be used for apprenticeship, apprenticeship per-
sonal employment as teaching assistant, associate, 
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member 
responsible for curriculum and instruction at UCLA. 
May be repeated for credit. S/U grading.

414A-414B. Clinical Practicum: Adult/Gerontology 
Acute Care Oncology Nurse Practitioners. (6-8) 
Clinic practicum, 16 hours (course 414A) and 22 
hours (course 414B). Emphasis on role of primary 
healthcare provider for patients with oncological problems. Emphasis on health promotion, mainte-

429A. Family Nurse Practitioner Practicum I. (4) 
Clinic practicum, 12 hours. Requisites: courses 200, 
440. First 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 trau-
tas. Preparation in variety of clinical settings to imple-
ment evidence-based practice guidelines and to critically analyze and adapt health-
care interventions based on individualized assess-
ments of individual/family needs. Focus on context of 
community, cultural awareness, and practice in inter-
disciplinary teams. Students complete minimum of 80 
direct clinical hours. Letter grading.

429C-429D-429E. Family Nurse Practitioner Practi-
cum III, IV, V. (6-6-6-9) Clinic practicum, 18 hours 
(courses 429C, 429D) and 27 hours (course 429E). 
Requisites: courses 429A, 429B, and 429C. For 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 in 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 trau-
tas. Preparation in variety of clinical settings to imple-
ment 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. For courses 429C and 429D, students complete min-
imum of 160 direct clinical hours; for course 429E, 
they complete minimum of 240 direct clinical hours. 
Letter grading.

438A. Pediatric Nurse Practitioner Clinical Practi-
cum I. (4) Clinic practicum, 12 hours. Corequisite: 
course 238A. Comprehensive assessment and anti-
pediatric guidance for children and families to pro-
mote child wellness. Clinical practicum, seminar, and at least 
activity to demonstrate application and evaluation of evidence-based research and clinical guidelines in 
common pediatric illnesses. Students complete minimum 
of 160 direct clinical hours. Letter grading.

438B. Pediatric Nurse Practitioner Clinical Practi-
cum II. (6) Clinic practicum, 18 hours. Corequisite: 
course 238B. Advanced comprehensive assessment, 
diagnosis, and management of common pediatric ill-
nesses and developmental and/or behavioral prob-
lems. Clinical practicum, seminar, and other learning 
activities to demonstrate application and evaluation of evidence-based research and clinical guidelines in 
common pediatric illnesses. Students complete minimum 
of 160 direct clinical hours. Letter grading.

438C. Pediatric Nurse Practitioner Clinical Practi-
cum III. (6) Clinic practicum, 18 hours. Corequisite: 
course 238C. Advanced comprehensive assessment, 
diagnosis, and management of chronic and acute pe-
idiatric illnesses in ambulatory setting. Clinical 
practicum, seminar, and other learning activities to 
demonstrate application and evaluation of evidence-based research and clinical guidelines in 
common pediatric illnesses. Students complete minimum 
of 160 direct clinical hours. Letter grading.

438D. Pediatric Nurse Practitioner Clinical Practi-
cum IV. (6) Clinic practicum, 12 hours. Corequisite: 
course 238D. Advanced comprehensive assessment, 
diagnosis, and management of chronic and acute pe-
idiatric illnesses in ambulatory setting. Clinical 
practicum, seminar, and other learning activities to 
demonstrate application and evaluation of evidence-based research and clinical guidelines in 
common pediatric illnesses. Students complete minimum 
of 160 direct clinical hours. Letter grading.

438E. Pediatric Nurse Practitioner Clinical Practi-
cum V. (6) Clinic practicum, 18 hours. Corequisite: 
course 238E. Advanced comprehensive assessment, 
diagnosis, and management of chronic and acute pe-
idiatric illnesses in ambulatory setting. Clinical 
practicum, seminar, and other learning activities to 
demonstrate application and evaluation of evidence-based research and clinical guidelines in 
common pediatric illnesses. Students complete minimum 
of 160 direct clinical hours. Letter grading.
tion and evaluation of evidence-based research and clinical guidelines in pediatric health problems. Students complete minimum of 220 direct clinical hours. Letter grading.


439B. Adult/Gerontology Primary Care Nurse Practitioner Practicum II. (4) Clinic practicum, 18 hours. Requisites: course 439A. Corequisite: course 239B. Continuation of course 439A for advanced practice nurses, with emphasis on nursing management of acute and chronic health problems in selected populations. Developmental needs of clients in relation to family, social, and cultural structures. Students complete minimum of 80 direct clinical hours. Letter grading.

439C. Adult/Gerontology Primary Care Nurse Practitioner Practicum III. (6) Clinic practicum, 18 hours. Requisite: course 439B. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on nursing assessment and intervention in complex illness-related symptoms and complex patient/family presentations. Analysis, evaluation, and integration of current theory and research to provide basis for development of interventional and treatment for acute and chronic problems across lifespan. Students complete minimum of 160 direct clinical hours. Letter grading.

439D. Adult/Gerontology Primary Care Nurse Practitioner Practicum IV. (6) Clinic practicum, 18 hours. Requisites: courses 239C, 439C. Residency in advanced practice role where students assume primary responsibility for planning, managing, and evaluating comprehensive, client-centered care in settings, focused on application and integration of theory, research, and clinical knowledge in advanced practice role. Students complete minimum of 160 direct clinical hours. Letter grading.

439E. Adult/Gerontology Primary Care Nurse Practitioner Practicum V. (9) Clinic practicum, 18 hours. Enforced requisites: courses 439A through 439D. Designed to prepare adult/gerontology primary care nurses with knowledge and skills necessary to assume role of primary healthcare providers for young adults, adults, and older adults. Use of patient-centered framework of care is emphasized as applied to chronic illness, disability, and developmental transitions. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments, with emphasis on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 240 direct clinical hours. Letter grading.


450. Advanced Practice Nursing: Clinical Elective Independent Study. (2 to 6) Clinic practicum, eight hours. Elective 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. S/U grading.


464. Pediatric Nursing. (5) Lecture, three hours; clinical, six hours. Requisite: course 465C. Corequisite: course 462. Nursing assessment and management for selected acute and emergent problems in infants, children, and adolescents, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, diagnosis, pharmacology, therapeutic interventions, and communication concepts as applied to care of infants, children, and adolescents. Application of nursing process, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised practicum experience with children and adolescents in clinical setting and Care of Medical-Surgical Patients and Nursing / 545


467. Clinical Internship. Integration. (12) Clinical, 36 hours. Requisites: courses 461, 462, 464, 465D. Supervised practicum experience within setting of
multidimensional team, with focus on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Advanced-level assessment, health maintenance, and management of symptomatology across lifespan. S/U 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.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA assistant dean and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward M.S.N. degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 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 M.S.N. degree requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 12) Tutorial, to be arranged. Individualized faculty supervision of Ph.D. dissertation research by student’s chair. May be repeated for credit, but only 8 units may be applied toward Ph.D. degree requirements. S/U grading.

The Department of Ophthalmology provides instruction to medical students during the first, second, third, and fourth years. 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 further details on the Department of Ophthalmology and a listing of the courses offered, see http://www.jsei.org/education/.

**Ophthalmology**

**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**

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Fariba S. Younai, D.D.S., Vice Chair

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Francesco Chiappelli, Ph.D.
Robert H. Chiu, M.S., Ph.D.
Dean Ho, Ph.D.
Anahid Jewett, M.P.H., Ph.D.
Mo K. Kang, M.S., Ph.D., D.D.S. (Jack A. Weichman Professor of Endodontics)
Diana V. Messadi, M.M.Sc., D.D.S., D.M.S.
Ichiro Nishimura, D.D.S., D.M.D.
Wenyuan Shi, Ph.D.
Igor Spigelman, M.S., Ph.D.
Sotirios Tetraxis, Ph.D., D.D.S.
Cun-Yu Wang, Ph.D., D.D.S. (Dr. No-Hee Park Professor of Dentistry)

Associate Professors
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Reuben Kim, D.D.S.
Renate Lux, Ph.D., D.D.S., In Residence
Kenneth T. Miyasaki, M.S., Ph.D., D.D.S.

Assistant Professors
Yeumin Christine Hong, M.D.
Ting-Ting Wu, Ph.D.

Adjunct Professor
Carl A. Maida, M.A., Ph.D.

Adjunct Associate Professors
Yong Kim, Ph.D.
Ki-Hyuk Shin, M.S., Ph.D.
Craig D. Woods, D.D.S.

Adjunct Assistant Professor
Xyesong He, Ph.D., D.D.S.
Scope and Objectives

Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, morphology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or research career.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gsas.html. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Section of Oral Biology in the School of Dentistry offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Oral Biology. A combined D.D.S./Oral Biology M.S. or Ph.D. or advanced certificate training/Oral Biology M.S. or Ph.D. is also offered.

Oral Biology

Graduate Courses

201A, 201C. Advanced Oral Biology. (3-3) Lecture, three hours. S/U or letter grading.

201A. Ontogeny. (3) Lecture, three hours. Evolu- tionary 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 human, S/U or letter grading.

201C. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbially mediated demineralization of hard tissues, soft tissue infections, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or letter grading.


205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate students, this course bridges the gap between 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. Required for courses: 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared mechanism in comparative effectiveness and evidence-based research. Specialized topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regression, and Bayesian-derived decision making following utility analysis. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. 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 from genomics and proteomics, and application 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 M.S. and Ph.D. programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lecture, two hours. Anatomy, histology, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Proseminar: Oral Biology Research. (2) Seminar, one hour; discussion, one hour. Introductory course for graduate M.S. students. Guest seminars on topics of research in oral biology (pain pathways, immunology, bone biology, microbiology, cancer, and salivary genomics), followed by discussions led by course chair. Letter grading.

214. Current Research in Osteoimmunology. (2) Seminar, one hour; discussion, one hour. Exploration of oral bone biology and immunology and how both systems talk to each other. Topics include immune modulation in bone, osteoblastic niches for hematopoietic progenitors, adult bone marrow stem cell changes, and osteoimmunology in at-risk populations. Letter grading.

215A. Fundamentals of Immunology. (2) Lecture, two hours. Basic cellular and molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes. Letter grading.

215B. Current Advanced Research Topics in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very important field of immunology. Directed and student-led discussions discuss current cutting-edge research developments in immunology. Letter grading.

226. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in human anatomy. Examination of key developmental landmarks acquired from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of craniofacial growth and development. Focus on craniofacial region. Students required to present seminars on assigned topics that aid their understanding and analysis of course content that has application to specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Description and interpretation of important stages in development of orofacial apparatus and historical 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 dentistry. 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, biological, and linguistic anthropology to understand factors that influence health and well-being, experiences and distribution of illness, prevention and treatment of sickness, and social sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. What factors determine the course of disease in global context, including political economy of infectious diseases, child health issues, women’s health and reproductive health, global trade in illegal and illegal drugs, demographic and health transition, structural adjustment, problems associated with globalization of pharmaceutical industry; antibiotic resistance, and globalization and health equity. Letter grading.

234. Seminar: Developmental Neuroendocrineimmunology. (2) Seminar, two hours. Designed for graduate students. Psychological and physiological processes intertwine, and one important aspect of psychological immunological 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 M238.) Lecture, three hours; discussion, one hour. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Medicine, Nursing, and Public Health during weeks two through five. Letter grading.


273. Research in Clinical Immunology and Lymphology. (2) Lecture, one hour; discussion, one hour. Forum for discussion of cutting-edge topics in immunology and lymphology from clinical perspective. Emphasis on immune surveillance and lymphatic drainage of oral pathologies associated with AIDS and other diseases. Letter grading.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecules, with emphasis on applications in dental research. Letter grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

599. Preparation for Ph.D. Qualifying Examination. (4 to 8) Tutorial, to be arranged. S/U or letter grading.

PATHOLOGY AND LABORATORY MEDICINE

David Geffen School of Medicine

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Michael C. Fishbein, M.D., in Residence (Frances and Albert Piansky Professor of Anatomy)
Samuel Wheeler French, Jr., M.D., Ph.D., in Residence
Tomas Ganz, M.D., Ph.D.
Ben J. Glasgow, M.D. (Wasserman Professor of Ophthalmology)
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Nora Rengsengt, D.V.M., Ph.D.
Jonathan W. Said, M.D.
Robert H. Schiestl, Ph.D.
Michael A. Teitel, M.D., Ph.D. (Lya and Harrison Latta Endowed Professor of Pathology)
Peter J. Tontonoz, M.D., Ph.D.
Harry V. Vinters, M.D.
Hamil L. Wang, M.D., Ph.D.
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Professors Emeriti
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Judith A. Berliner, Ph.D.
Pasquale A. Cancilla, M.D.
Michael J. Cecka, Ph.D.
Walter F. Coulson, M.D.
Rita B. Effros, Ph.D.
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Madhuri Wadehra, Ph.D.
Xiaohai Zhang, Ph.D.

Scope and Objectives

Pathology is the branch of medicine concerned with the causes and development of disease. The goal of the cellular and molecular pathology (CMP) graduate program is to provide students with the knowledge to integrate findings at the molecular, cellular, and systemic levels to understand the causes and progression of disease. Coursework is designed so that students gain an in-depth knowledge of cell and molecular biology, genetics, and disease mechanisms. Didactic instruction is complemented by participation in seminars and training in the design and execution of original laboratory research. As a result, graduates obtain the expertise to translate and answer questions defined in the clinical area to the laboratory bench and vice versa. See http://pathology.ucla.edu/body.cfm?id=398 for more information.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Pathology and Laboratory Medicine offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Cellular and Molecular Pathology.

Pathology and Laboratory Medicine

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 cytogenetics, including fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and array CGH to diagnose constitutional syndromes and cancer. Journal club sessions include discussion of two journal articles per meeting (one clinical and one basic/translational presentation at least one journal article and leading of one group discussion required. Letter grading.

199. Directed Research in Pathology, (2 to 4) Tutorial, 10 hours. Limited to juniors/seniors. Supervised individual 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


M215. Interdepartmental Course: Tropical Medicine, (2) (Same as Medicine M215 and Pediatrics M215.) Lecture, two hours; laboratory, one and one half hours. Gross and Developmental Anatomy for Graduate Students. Basic concepts 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 or letter grading.

222. Hematopoiesis: Basic Biology and Clinical Implications, (4) Lecture, three hours; discussion, one hour. Senior undergraduate students considered on case by case basis. In-depth study of concepts and paradigms in hematopoietic development. Mammalian hematopoiesis and normal development, with focus on molecular regulation of cellular development and equal emphasis on conceptual and experimental aspects of knowledge in field. Discussion of important pathological states within hematopoietic system, as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hematopoiesis, B- and T-lymphocyte development, myeloid, erythroid, and platelet development, immune responses, myeloid and lymphoid neoplasia, and bone marrow transplantation/gene therapy. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction, (4) (Same as Microbiology M229.) Lecture, two hours; discussion, two hours. Requisites: Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organs. Letter grading.

M257. Introduction to Toxicology, (4) (Same as Pharmacology M257.) Requisites: Pharmacology M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organs. S/U or letter grading.

M258. Pathologic Changes in Toxicology, (4) (Same as Pharmacology M258.) Designed to give students experience in learning normal histology of tissues which will lead to the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).

M259. Molecular Nutrition and Genetics Epidemiology of Obesity and Diabetes, (4) (Same as Epidemiology M259.) Lecture, four hours. Preparation: Basic biochemistry, epidemiology, molecular biology, physiology, and statistics courses. Survey of entire landscape of obesity and diabetes, and genetic aspects of obesity and diabetes and their microvascular and macrovascular complications. Review of descriptive and analytical epidemiology of these seemingly distinct yet clearly clustered disorders, including so-called metabolic syndrome. Study of distributions and determinants of these disorders in Westernized populations to appreciate how and why these epidemics occurred. Through case studies students learn process of generating etiologic hypotheses that can be tested using modern molecular epidemiologic methods. Techniques and principals of molecular genetics and genomics. Analysis of real data sets that include both genotype and phenotype information, with emphasis on examination of various gene/environment interactions. S/U or letter grading.

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, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmune. Letter grading.

262. Cytogenetics and Genomics, (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in conventional and state-of-art cytogenetic and genomic principles and techniques and their utility in clinical and research applications. Focus on relationships between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluorescence in situ hybridization (FISH), chromosomal microarrays, array CGH, and next-generation sequencing (NGS). All aspects of molecular cytogenetics and cytogenomics through didactic teaching sessions, journal clubs, and interactive discussions. S/U or letter grading.

270. Basic and Clinical Aspects of Developmental Hematology, (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics in both basic and clinical aspects of developmental hematology. Ursodiol / Ursodeoxycholic acid (UDCA) and related metabolites provide important paradigm to study other developmental systems. Subjects include hematopoiesis, basic stem cell biology, angiogenesis, alternative models to study developmental hematology (zebrafish and Drosophila), basic physiology of normal stem cells and normal red cells and white cells, leukemogenesis and novel therapeutics to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology, and paradigms in hematopoietic development. Design of clinical trials, and biomathematical modeling and of development. Letter grading.

272. Stem Cell Biology and Regenerative Medicine, (4) (Same as Molecular, Cell, and Developmental Biology M272.) Lecture, two hours; discussion, two hours. Designed for graduate students. Preparation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and development. Major emphasis on how advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

280. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes, (4) Lecture, two hours. Limited to graduate students. Coverage of broad range of topics on both clinical aspects and molecular pathogenesis of bone marrow failure syndromes. Studies provide important paradigms to understand fundamental mechanisms of human disease in addition to normal and abnormal blood cell development. Topics include basic biology and clinical features of aplastic anemia, myelodysplastic syndromes, Diamond Blackfan Anemia, Schwachman Diamond Syndrome, Fanconi Anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Journal club sessions include discussion of two journal articles per meeting—one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U or letter grading.


296. Research Topics in Pathology, (1 to 2) Research group meeting, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current research. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298A-298D. Current Research in Disease Mechanisms, (2 each) Lecture, 90 minutes. Preparation: one course each in molecular biology, cell biology, and biophysical chemistry. Designed for graduate experimental pathology students. Current research in disease mechanisms, with strong emphasis on experimental approaches in pathology. Topics include genetic and metabolic disorders, tissue necrosis, inflammation, and autoimmunity. Letter 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.


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

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Gavin Lawrence, D.Phil.
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Professors Emeriti

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Robert Merrihew Adams, Ph.D.
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Assistant Professors

Joshua D. Armstrong, Ph.D.
Katrina J. Elliott, Ph.D.
Gabriel J. Greenberg, Ph.D.
Alexander J. Julius, Ph.D.

Lecturer

Andrew Hsu, Ph.D.

Undergraduate Study

Philosophy B.A.

Preparation for the Major

Required: Four lower division courses, including Philosophy 7 or 21, 22, 31, and one other lower division philosophy course.

Transfer Students

Transfer applicants to the Philosophy major with 80 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.

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; logic, semantics and philosophy of science; ethics and value theory; and metaphysics and epistemology. Students should take two courses in each of the three of the groups and one course in the remaining group.

Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. No course used to satisfy the major or preparation requirements may be taken on a P/NP basis.
Students intending to do graduate work in philosophy should consult both the graduate and undergraduate advisers.

## 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 by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper division philosophy courses supervised by the instructors of those courses; and (3) receive a grade of A– or better in each course applied toward satisfaction of the honors requirement.

Students may substitute Philosophy 191 for either course 198A or 198B or, alternatively, may complete up to two philosophy graduate seminars in lieu of courses 198A and/or 198B. For an undergraduate or graduate seminar to be applied toward the honors directed study requirement, the consent of both the seminar instructor and the faculty honors adviser is required in advance. Students may also substitute up to one 4-unit Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

Exceptional work done to satisfy the honors requirement may be submitted to the department chair for consideration for highest honors.

### Philosophy Minor

To enter the Philosophy minor, students must have an overall grade-point average of 2.0 or better.

#### Required Lower Division Courses (8 units): Philosophy 7 or 21, and 22 or 31.

#### Required Upper Division Courses (24 units):
Five courses, including at least one from each of three of the four groups into which the undergraduate and graduate courses are divided (Philosophy 100A, 100B, 100C apply toward Group I; one additional upper or lower division philosophy 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. Successful completion of the minor is indicated on the transcript and diploma.

## Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees available at the Graduate Division website, http://grad.ucla.edu/gasasa/lib/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

### Graduate Degrees

The Department of Philosophy offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Philosophy. A concurrent degree program (Philosophy Ph.D./Law J.D.) is also offered.

### Philosophy

#### Lower Division Courses

1. **Beginnings of Western Philosophy.** (5) Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the 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 religious belief, relation between religion and ethics, nature and existence of God, problem of evil, and what can be learned from religious experience. P/NP or letter grading.

3. **Historical Introduction to Philosophy.** (5) Lecture, three hours; discussion, two hours. Historical introduction to Western philosophy based on classical texts dealing with major problems, related thematically and studied in chronological order: properties of rational argument, existence of God, problem of knowledge, nature of causality, relation between mind and body, possibility of justice, and others. P/NP or letter grading.

4. **Philosophical Analysis of Contemporary Moral Issues.** (5) Lecture, three hours; discussion, one hour. Critical study of principles and arguments advanced in discussion of current moral issues. Possible topics include revolutionary violence, rules of warfare, sexual morality, right of privacy, punishment, nuclear warfare and deterrence, abortion and mercy killing, experimentation with human subjects, rights of women. P/NP or letter grading.

5. **Philosophy in Literature.** (5) Lecture, three hours; discussion, one hour. Philosophical inquiry into such themes as freedom, responsibility, guilt, love, self-knowledge and self-deception, death, and meaning of life through examination of great literary works in Western tradition. P/NP or letter grading.

6. **Introduction to Political Philosophy.** (5) Lecture, three hours; discussion, one hour. Study of some classical or contemporary works in political philosophy. Questions that may be discussed include What is justice? Why obey the law? Which 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. Introductory study of philosophical issues about nature of the mind and its relation to the body, including materialism, functionalism, behaviorism, determinism and free will, nature of psychological knowledge. P/NP or letter grading.

8. **Introduction to Philosophy of Science.** (5) Lecture, three hours; discussion, one hour. Study of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at nontechnical level of episodes from history of science. P/NP or letter grading.

9. **Principles of Critical Reasoning.** (4) Nature of arguments: how to analyze them and assess soundness of the reasoning they represent. Common fallacies that often occur in arguments discussed in light of what counts as a good deductive or inductive inference. Other topics include use of language in argumentation to arouse misunderstanding, accompanied by 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).

21. **Skepticism and Rationality.** (5) Lecture, four hours; discussion, one hour. Can we know anything with certainty? How can we justify any of our beliefs? Introduction to study of these and related questions through works of some great philosophers of modern period, such as Descartes, Hume, Leibniz, or Berkeley. P/NP or letter grading.

22. **Introduction to Ethical Theory.** (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22W. Recommended or required for many upper division courses in Group III. Systematic introduction to ethical theory, including discussion of egoism, utilitarianism, justice, responsibility, meaning of ethical terms, relativism, etc. P/NP or letter grading.

22W. **Introduction to Ethical Theory.** (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22. Introduction to major ethical theories in Western thought. Examination of works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, obligation, egoism, relativism, and foundations of morals. Four papers required. Satisfies Writing II requirement. Letter grading.

31. **Logic, First Course.** (4) Lecture, three hours; discussion, one hour. Recommended for students who plan to pursue more advanced studies in logic. Elements of symbolic logic, sentential and quantification; forms of reasoning; deductive structure of language.

97. **Freshman Seminar.** (4) Variable topics; consult Schedule of Classes or “Department Announcements” for topics to be offered in a specific term. May be repeated for credit with consent of instructor.

## Upper Division Courses

100A. **History of Greek Philosophy.** (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of origins of Greek metaphysics from pre-Socratics through Plato and Aristotle.

100B. **Medieval and Early Modern Philosophy.** (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended prerequisite: course 100A. Introduction and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes.

100C. **History of Modern Philosophy, 1650 to 1800.** (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended prerequisite: course 100B. Courses 100A, 100B, and 100C should be taken in immediately successive terms if possible. Survey of development of metaphysics and theory of knowledge from 1650 to 1800, including Locke and/or Berkeley, Malebranche and/or Leibniz, and culminating in Hume and Kant. Topics may include views of these (and perhaps other) philosophers of the period on mind and body, causality,
existence of God, skepticism, empiricism, limits of human knowledge, and philosophical foundations of modern science.

Group I: History of Philosophy

M101A. Plato—Earlier Dialogues. (4) (Same as Classics M146A) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M101B. Plato—Later Dialogues. (4) (Same as Classics M146B) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M102. Aristotle. (4) (Same as Classics M147) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.

M103A. Ancient Greek and Roman Philosophy. (4) (Same as Classics M145A) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) (Same as Classics M145B) Lecture, three hours. Preparation: one course from 1, 100A, M101B, M102, or M103A. Study of a major text in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

104. Topics in Islamic Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Development of Muslim philosophy in its great age (from Kindo to Averroes, 850 to 1200), considered in connection with Muslim theology and mysticism.


106. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and ethics of several major texts from Aquinas through Ockham, with less full discussion of other authors from the 13th through early 15th century. Selected texts read in English translation.

107. Topics in Medieval Philosophy. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Recommended requisite: course 105 or 106. Study of philosophy and theology of one medieval philosopher such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham, or study of one single area such as logic or theory of knowledge in several medieval philosophers. Topic announced each term. May be repeated for credit with consent of instructor.

C108. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes’ political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C208. P/NP or letter grading.

C109. Descartes. (4) Lecture, four hours; discussion, one hour. Preparation: one or two philosophy courses. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209. P/NP or letter grading.

C110. Spinoza. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of philosophy of Spinoza. May be concurrently scheduled with course C210 in weeks of discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C111. Leibniz. (4) Lecture, three hours; discussion, one hour. Preparation: course 210. 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 metaphysical, epistemological, 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. Preparation: one or two philosophy courses. Study of Kant’s views on related topics in theory of knowledge, ethics, and political theory. 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. Study of philosophers in work of one or more of following philosophers: Bolzano, Frege, Hegel, Hume, Kant, Mill, Peirce, 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.

C119. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in one or more phases of modern philosophy. 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. Preparation: course 31 or 124. Introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selection 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). May be concurrently scheduled with course C217A. P/NP or letter grading.

C127A. Philosophy of Language. (4) (Formerly numbered 127A) Lecture, four hours; discussion, one hour. Preparation: 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 C228A, P/NP or letter grading.

C127B. Philosophy of Language. (4) (Formerly numbered 127B) Lecture, four hours; discussion, one hour. Preparation: course 31. Course C127A is not required. Concurrently scheduled with course C228B. P/NP or letter grading.

C127C. Philosophy of Language. (4) (Formerly numbered 127C) Lecture, four hours; discussion, one hour. Preparation: 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.

128A. Philosophy of Mathematics. (4) Lecture, four hours. Preparation: courses 31, 137, and preferably one additional logic course. Philosophy of mathematics; logicism of Frege and Russell, arithmetic reduced to logic; ramified type theory and impredicative definition (Russell, Poincare, early Weyl). P/NP or letter grading.


129. Philosophy of Psychology. (4) Lecture, three hours; discussion, one hour. Preparation: one 4-unit psychology course, one philosophy course. Selected philosophical issues arising from psychological theories. 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 alternativists; physiology and psychology.

130. Philosophy of Space and Time. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses or one philosophy course and one physics course. Selected philosophical problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include nature of geometry, space-time conventions, and relativist views of space and time, philosophical impact of relativity theory.

131. Science and Metaphysics. (4) Lecture, four hours; discussion, one hour. Preparation: two philosophy or one science course. Recommended: some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

132. Logic, Second Course. (4) (Formerly numbered 137.) Lecture, three hours; discussion, one hour. Preparation: course 31 (preferably in preceding term). Symbolic logic: extension of systematic development of course 31. Quantification, identity, definite descriptions. P/NP or letter grading.

133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Preparation: one or two philosophy courses. May be concurrently scheduled. Some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

134. Introduction to Set Theory. (4) (Same as Mathematics M114S.) Lecture, three hours; discussion, one hour. Preparation: course 135 or Mathematics 110A or 131A. Axiomatic set theory as framework for mathematical concepts; relations; functions; numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.
135. Introduction to Metalexic. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Metalexic setential logic and first-order logic. Intro-duction to formal languages, their syntax, semantics, and models. Compactness and completeness theorems that concern complexity of notion of logical consequence. Letter grading.

136. Topics in Logic. (4) Lecture, four hours. Requisite: course 31. First course in two-term sequence (also see course 176). Topics include various normal modal systems, derivability within the systems, Kripke-style semantics, and generalizations. Lemmon/Scott com-pleteness, incompleteness in tense and modal logic, quantificational extensions. Letter grading.

137. Philosophy of Biology. (4) Formerly numbered 132.) Lecture, four hours. Preparation: one philosophy course. In this intensive study of one or two current topics in philosophy of biology, which may include structure of evolutionary theory, fitness, taxonomy, reductionism, concept of biological species, and biological explanation. P/NP or letter grading.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Critical study of ethical theories and arguments advanced in dis-cussion of current moral and social issues. Topics similar to those in course 4, but familiarly with some basic philosophical concepts and methods presup-posed. May be repeated for credit with consent of in-structor.

151A-C151B-151C. History of Ethics. (4-4-4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Each course may be taken independently for credit. P/NP or letter grading. 151A. Selected Classics in Ancient Ethical Theories: Plato, Aristotle. C151B. Modern. Intensive study of Kant’s ethical theory. May be repeated for credit with con-sent of instructor. May be concurrently scheduled with course C245. 151C. Selected Classics of Medi-eval Ethics.

153A. Topics in Ethical Theory: Normative Ethics. (4) Lecture, three hours; discussion, one hour. Requi-site: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, vir-tues and vices, principles of culpability and praise-worthiness (criteria of right action). May be repeated for credit with consent of instructor, P/NP or letter grading.

C153B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Critical analysis of logic of basic concep-ted problems, and contemporary issues in meta-ethics. Topics may include analysis of moral lan-guage, justification of moral beliefs, moral realism, skepticism, free will, motivation, etc. May be re-peated for credit with consent of instructor. May be concurrently scheduled with course C253B. P/NP or letter grading.

154. Topics in Value Theory: Rationality and Ac-tion. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 7 or 22. Selected topics con-cerning normative issues in practical rationality or phi-losophy of action. Topics may include moral and practical reasoning, nature of reasons for action, ratio-nality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor, P/NP or letter grading.

154B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Ex-amination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in attempt to better understand kind of freedom required for moral agents. May be re-peated for credit with consent of instructor, P/NP or letter grading.

155. Medical Ethics. (4) Lecture, three hours; discus-sion, one hour. Examination of philosophical issues raised by problems of medical ethics, such as abor-tion, euthanasia, and medical experimentation. P/NP or letter grading.

C156. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C247. P/NP or letter grading.

157A-C157B. History of Political Philosophy. (4-4) Lecture, three hours; discussion, one hour. Prepara-tion: two philosophy courses. May be repeated with consent of instructor. 157A. Reading and discussion of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. C157B. 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 philo-sophy course. Philosophical theories about nature and importance of art and art criticism, aesthetic experi-ence, and aesthetic values. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philo-sophical writings, of such topics as nature of law, rela-tionship of law and morals, legal reasoning, punish-ment, and obligation. May be repeated for credit. P/NP or letter grading.

Group IV: Metaphysics and Epistemology

170. Philosophy of Mind. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant phi-losophy courses. Analysis of various problems con-cerning nature of mind and mental phenomena, such as relation between mind and body, and our knowl-edge of other minds. May be repeated once for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Lecture, three hours; discussion, one hour. Requi-sites: philosophical logic and/or theories of meaning and communication; how words refer to things; limits of meaningfulness; analysis of speech acts; relation of everyday language to scientific discoveries. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 182 or 183. Intensive investigation of one or two se-lected topics or works in theory of knowledge, such as a priori knowledge, induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

175. Philosophy of Religion. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. 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, Nietzsche, Heidegger, Scheler, Sartre, Merleau-Ponty, or Ormuz. Emphasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology. (4) Lecture, three hours; dis-cussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, or Ormuz. Topics in-clude ontology, epistemology, and particularly philos-ophy of mind.

179. Asian Philosophy. (4) Lecture, three hours; dis-cussion, one hour. Examination of central concepts and arguments in Buddhist or Chinese philosophy. Appropriate parallels to social concepts in Western tradition. May be repeated for credit with consent of department. P/NP or letter grading.

180. Philosophy of Action. (4) Lecture, four hours. Preparation: two philosophy courses. Study of var-iouos concepts employed in understanding human ac-tion. Topics may include rational choice, desire, inten-tion, weakness of will, and self-deception. P/NP or letter grading.


182. Elements of Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of basic metaphysical questions: nature of physical world, of minds, and of universals; and an-swers provided by alternative systems (e.g., phenom-enalism, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Analysis of concept of empirical knowledge. 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: two philosophy courses. Critical investigation of one or two topics or works in metaphysics, such as personal identity, nature of disposi-tions, possibility and necessity, universals and partic-u-lars, 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 one or more major modern philosophers (e.g., Russell, Moore, Wittgenstein, Carnap, Quine). May be re-peated for credit with consent of instructor, P/NP or letter grading.

Special Studies

M187. Philosophical Analysis of Issues in Feminist Theory. (4) Formerly numbered 1110C.) Lecture, three hours. Preparation: one gender studies ma-jor; Gender Studies 10; for other students: one phi-losophy course. Examination in depth of different the-oretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that arise in discussion of women’s rights and liberation. Philosophical approach to feminist the-oories. May be repeated for credit with consent of in-structor. Letter grading.

191. Variable Topics Research Seminars: Philoso-phy. (4) Seminar, one hour; discussion, three hours. Preparation: Philosophy 21. Variable topics; consult Schedule of Classes or “Depart-ment 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.
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. S/U or letter grading.

Group I. History of Philosophy


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

204. 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 Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

205. 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.

206. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one 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.

207. Descartes. (4) Lecture, four hours; discussion, one hour. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C109. S/U or letter grading.

208. Spinoza. (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

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: the 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 21 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C115. S/U or letter grading.

216. 19th-Century Philosophy. (4) Seminar, four hours. Topics in nineteenth-century philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Selected topics in one or more philosophies of early modern period, or study in single area such as knowledge, metaphysics in several philosophers. 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

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, continuum hypothesis, inaccessible numbers. Formalization of set theory; Zermelo/Fraenkel; von Neumann/Gödel axiomatic theory. May be repeated for credit with consent of instructor. S/U or letter grading.

221B. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory. Focus on seminal writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of certain key ideas, such as set theory as logic, axiomatic set theory as reaction to paradoxes, formal first-order axiomatic set theory as opposed to informal axiomatics, type theory and rank hierarchy, ramification and predicativity, proper classes and sets as small classes, and particular Zermelo/Fraenkel axiomatic theory. Emphasis on actual expressed ideas and views of various influential authors. S/U or letter grading.


224. Philosophy of Physics. (4) Seminar, three hours. Selected philosophical questions related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

225. Probability and Inductive Logic. (4) Lecture, three hours. Requisite: course M134 or Mathematics M114S. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. S/U or letter grading.

226. Topics in Mathematical Logic. (4) Lecture, four hours. Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relations between social processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest and advanced preparation in social sciences encouraged to enroll. May be repeated for credit with consent of instructor, S/U or letter grading.

228A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantic concepts of truth, sense and denotation, synonymy and antonymy, modalities and tenses. Examination of course includes indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127A. S/U or letter grading.

228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 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.

229C. 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.

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 context, paradoxes, conditionals, inconsistent semantics, intensional logic of Principia Mathematica, possible worlds semantics. May be repeated for credit with consent of instructor. S/U or letter grading.

232. Philosophy of Science. (4) Seminar, three hours. 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.

Group III. Ethics and Value Theory

241. Topics in Political Philosophy. (4) Seminar, four hours. Requisites: course 150 or C165 or 157A or 157B. May be a two-philosophy course. 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.

245. History of Ethics: Modern. (4) Lecture, three hours; discussion, one hour. Intensive study of Kant's ethical theory. May be repeated for credit with consent of instructor. 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.
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.

275. Human Action. (4) Preparation: two upper division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions; determinism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Seminar, three hours. Selected topics in 20th-century continental philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

281. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

282. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

283. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

284. Seminar: Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

285. Philosophy of Psychoanalysis. (4) Seminar, three hours. Examination of topics such as the unconscious, ego, id, super-ego, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.

286. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semantic theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

287. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

289. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

290. Workshop: Philosophy of Language. (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.

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.

299. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candidacy. Presentation of ongoing research by graduate students. Participants may present papers on their own 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 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 College Philosophy. (2 to 4) Seminar, to be arranged. Seminars, workshops, and apprentice teaching. Selected topics, including evaluation scales, various teaching strategies and their effects, and other topics in college teaching. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Properly qualified graduate students who wish to pursue one problem through reading or advanced study may do so if their proposed project is acceptable to one staff member. May be repeated for credit. S/U or letter grading.


Physics and Astronomy

Affinity has existed between astronomy and...
The Major


Honors Program

Senior majors in Astrophysics with a 3.5 grade-point average in all astronomy, mathematics, and physics courses are eligible for the honors program in astrophysics. In addition to completing all courses required for the major, students must complete two terms of Astronomy 199. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively, and work in course 199 must reflect original research and be accepted by the departmental honors committee.

Biophysics B.S.

The goal of the Biophysics major is to provide students with the undergraduate background to enable them to enter very good graduate programs in biophysics, molecular biology, and physics. As the molecular biophysics field emerges as an important and rapidly developing area of scientific research and knowledge, the major is designed to provide both the scientific/technical training and the immersion in physics and molecular biology necessary to enable students to understand and integrate these fields intellectually and to have the opportunity to become leaders in bringing the analytic and experimental techniques of both fields to bear on the complicated behavior of microbiological macromolecular systems.

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 1B; Chemistry and Biochemistry 20A, 20B, 30A, 30B; Life Sciences 2, 3 or 3H, 4, 23L; Mathematics 31A, 31B, 32A, 32B, 33A. Recommended: Life Sciences 1, Mathematics 33B, Physics 18L.

Transfer Students

Transfer applicants to the Biophysics 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 Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131. The remainder of the course of study consists of a plan, to be worked out by students in consultation with their designated departmental adviser, that details which courses they take to complete the degree. There are four overall requirements: (1) the plan must be worked out five terms before students expect to graduate; (2) the plan must include two courses from Physics 118 and 180A through 180Q, which should be taken in the senior year; (3) there must be three additional upper division courses in the plan, preferably selected from Physics 108, 114, 117, M122, 123, 124, 126, 127, 128, 132, 140A, 140B, 144, 150, C186, 187, 188A; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic committee.

Preapproved plans of study are available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

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The Major

Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131. Transfer students are eligible after completing the preparation for the major and four upper division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

Physics B.A.

The Physics B.A. major is intended to provide 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 Ph.D. in Physics are advised to work for the B.S. in Physics as described earlier.

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

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Refer to the UCLA Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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Refer to the UCLA Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Physics and Astronomy offers the Master of Arts in Teaching (M.A.T.) degree in Astronomy, Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Astronomy, Master of Arts in Teaching (M.A.T.) degree in Physics, and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Physics.

Astronomy

Lower Division Courses

3. Nature of Universe. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intended to major in physical sciences, on develop-
ment of ideas in astronomy and what has been learned of nature of universe, including recent discoveries and developments. P/NP or letter grading.

4. Black Holes and Active Galaxies. (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general UCLA students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate lives of stars and are associated with some of most energetic and explosive phenomena in astronomy. Basic equations of fluid dynamics with applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.

5. Life in Universe. (4) Lecture, four hours; discussion, one hour. Preparation prior to introduction to astronomy. Life on Earth and prospects for life elsewhere in context of evolution of universe from simple to complex. Historically, currently, and possibly an ongoing search for extraterrestrial life. Investigation of forces that influence scientific reporting. P/NP or letter grading.


7. Astronomy and Media. (4) Lecture, three hours; discussion, one hour. Laboratory, one hour. Designed to help nonmajors develop skills to continually learn about science through media. Detailed study of research currently in media, including meteor impacts, greenhouse effect, NASA, cosmology, and extraterrestrial life. Investigation of forces that influence scientific reporting. P/NP or letter grading.

8. Cosmology I: Stars and Nebulae. (4) Lecture, three hours; discussion, one hour. Laboratory, one hour. Required: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper division students. Survey of our knowledge about stars: their distances, masses, luminosities, and spectral types. Basic concepts of stellar evolution. Planetary nebulae. P/NP or letter grading.


10. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Designed for seniors in Astrophysics, Physics, or related field. Laboratory covers statistical methods in astrophysics, one- and two-dimensional random processes, and numerical methods. Laboratory experiments involve radio astronomy, interferometry, nanoband imaging, and visual photometry. Emphasis on use of computer for automatic collection of data and for processing two-dimensional astronomical images. P/NP or letter grading.

11. Research Colloquium 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 relevant work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

12. Research Group Seminars: Astrophysics. (1) Seminar group meeting, one hour. Designed for senior and graduate students who are part of research groups. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

13. 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.

14. Individual Studies in Astronomy. (2 to 4) Tutorial, three hours per week per unit. Limited to seniors with overall 3.0-grade point average. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assignment and reading and evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP grading.

15. Honors Research in Astrophysics. (2 to 4) Tutorial, two 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.

16. Directed Research or Senior Project in Astronomy. (2 to 4) Tutorial, two hours. Limited to junior/senior Astrophysics and Physics majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


277A-277B. Astronomy Research Project. (6-9) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned in conjunction with faculty advisor 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, to be arranged. Informal course with lecture/seminar format, focusing on one of set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.
Physics

Lower Division Courses

1A. Physics for Scientists and Engineers: Mechanics. (5) Lecture/demonstration, four hours; discussion, one hour. Recommended preparation: two years of high school physics, one year of high school calculus or Mathematics 31A. Enforced requisites: Mathematics 31A, 31B. Enforced corequisite: Mathematics 32A. Motion, Newton laws, work, energy, linear and angular momentum, rotation, equilibrium, gravitation. P/N or letter grading.


1BH. Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: course 1AH or 1A, Mathematics 31B, 32A. Enforced corequisite: Mathematics 33A. Enriched preparation for upper division physics courses. Same material as course 1B but in greater depth; recommended for Physics majors and other students desiring such coverage. P/N or letter grading.


1CH. Physics for Scientists and Engineers: Electricity, Magnetism, and Transport (Honors). (5) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1AH or 1A, 1B or 1BH. Enforced corequisite: Mathematics 33A. Enriched course: Mathematics 33B. Enriched preparation for upper division physics courses. Same material as course 1C but in greater depth; recommended for Physics majors and other students desiring such coverage. P/N or letter grading.

1Q. Contemporary Physics. (2) Review of current problems in physics, with emphasis on those being studied at UCLA. Significance of the problems and their historical context. P/N or letter grading.

4AL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, three hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: Mathematics 32A or 32B. Experiments on electric forces, fields, and potentials. Magnetic fields. Linear and nonlinear devices. Resis- tors, capacitors, and inductors. Modern circuits. Geometrical and physical optics. P/N or letter grading.

4BL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, three hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced course: Mathematics 32A or 32B. Experiments on electric forces, fields, and potentials. Magnetic fields. Linear and nonlinear devices. Resistors, capacitors, and inductors. Modern circuits. Geometrical and physical optics. P/N or letter grading.
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ativity, cosmology (Big Bang), quantization of light, nucleus and radioactivity, origin of elements, and quantum mechanics. P/NP or letter grading.

17. Elements and Functions of Statistical Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH), Mathematics 32A, 32B. Corequisite: Mathematics 33A. Boutillier's development of integrated circuits, applications of statistical mechanics to the organization, growth, and function of living systems. P/NP or letter grading.

18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH), 3A, 4B, 17. Experiments on radioactivity, scattering, Platonic constant, superconductivity, superfluidity. Letter grading.

87. Introduction to Biophysics. (4) (Formerly numbered M88.) Seminar, three hours. Enforced requisites: courses 1A, 1B, and 1C, or 1A, 1B, and 1CH, or 6A, 6B, and 6C, Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C, or 3A, 3B, and 32A. Special problems in biophysics, such as the energy transfer between DNA molecules and protein molecules, or the reactions in a living cell, or the development of the cell, or the function of biological systems. P/NP or letter grading.

88. Lower Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular topic or topic based on current research. Consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading.

98A. Workshop: Numerical Computational Physics. (1) Laboratory, one hour. Introductory presentations on three most common mathematical software packages—Mathematica, Mathcad, and MATLAB. After some familiarization with most common software functions, development of student personal software. Enforced requisites: student preference and assessment of advantages and strong points of each by solving problems in computational physics. P/NP grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in physics for life sciences majors. 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.

98XB. 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. 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. Students must be in good academic standing and enrolled in one of the required courses 1A, 1B, or 1C or 1A, 1B, and 1CH). Mathematics 32B, 33A. Corequisite: Mathematics 33B. Newtonian mechanics and conservation of energy. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH), 105A, 105B, 105C, 105D. P/NP grading.

Upper Division Courses

105A. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Mathematics 32B, 33A. Corequisite: Mathematics 33B. Newtonian mechanics and conservation of energy. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Mathematics 32B, 33A. P/NP grading.

105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Special topics in modern physics. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Interaction of light with matter: dispersion theory, oscillator strength, line widths, and multiple 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. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Introduction to electromagnetic theory. P/NP or letter grading.

110B. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Faraday law and Maxwell equations. Fundamental principles of electromagnetic radiation. Multipole radiation and radiation from an accelerated charge. Special theory of relativity. P/NP or letter grading.


114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Vibration systems and wave propagation in gases, liquids, and solids, including elements of hydrodynamics and elasticity. Applications in ultrasonics, low-temperature physics, solid-state physics, architectural acoustics, and electronic physics. P/NP or letter grading.


115B. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Corequisite: course 115C. Introduction to physics of elementary 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. Elementary Particle Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Mathematics 32B, 33A, 33B. Corequisite: course 115C. Introduction to physics of elementary 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.


131. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 105A, 115A, 115B, 115C. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. Extensive discussion of unsolved problems and future prospects to help students determine their opportunities in future. Letter grading.

132. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1A, 1B, and 1CH). Mathematics 32B, 33A, 33B. Functions of a complex variable, including Riemann surfaces, analytic func-
140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 112. Introduction to basic theoretical concepts of solid-state physics with applications. Crystal lattice energy; diffraction of electron, neutron, and electromagnetic waves in a lattice; reciprocal lattice; phonons and their interactions; free electron theory of metals; energy bands. Letter grading.


144. Polymer Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 105A, 110A, and 112 or Chemistry 110A. How physical properties of polymers can be derived from mathematical models of chains and coils. Comparison of these models to observations on polymers and to the solution problem and used to predict mechanical characteristics of large molecules. Study of networks of polymers and polymer products, with focus on their structure and their role in the function of individual polymers within 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, 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 motion in electromagnetic fields, transverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including gain and broadening mechanisms, laser physics principles such as mechanics, quantum mechanics, physics of large molecules. Study of networks of polymeric fluids, with focus on their viscoelastic properties. Study of networks of polymers, with focus on their viscoelastic properties 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 CM286. P/NP or letter grading.

180G. Soft Matter Laboratory. (4) Same as Chemistry M120G.) Laboratory, four hours. P/NP or letter grading.

180Q. Quantum Optics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisite or corequisite: course 115C. Limited to junior/senior Astrophysics and Physics majors. Use of techniques of quantum optics to study the interaction of quantum-mechanical systems, including superposition, quantum measurement, hidden variable theories, and Bell's inequality. Examination and use of modern optics, including lasers, optics, fibers, polarization manipulation, and photon counting. Letter grading.


190. General Atomic Structure. (4) Lecture, three hours; laboratory, six hours. Study of underlying physics of energy. Energy systems are based on well-known undergraduate-level physics principles such as mechanics, including quantum mechanics, quantum optics, and their interactions; diffraction of electron, neutron, and electromagnetic waves in a lattice; reciprocal lattice; phonons and their interactions; free electron theory of metals; energy bands. Letter grading.

191. Variable Topics Research Seminars: Physics and Astronomy. (4) Seminar, three hours. Participating research seminar on advanced topics in physics and astronomy. Reading, discussion, and development of research in the culminating project. Content varies from year to year. May be repeated for credit. P/NP or letter grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. May be repeated for credit. P/NP or letter grading.

193. Journal Club Seminars: Physics. (2 to 4) Seminar, one hour. Limited to undergraduate students. Seminars are linked to speaker-series seminars offered by department on weekly basis. Supplemental reading from literature on speaker's topic, as well as active participation and discussion to understand what kind of questions modern-day physicists actually ask and how they go about answering them. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Physics and Astronomy. (2) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or those taught by visiting faculty members. 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/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 Physics. (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. As 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 Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 grade-point average. May be repeated for credit. Individual contract required. P/NP grading.

199. Directed Research or Senior Project in 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

201. Modern Physics Research Areas. (2 to 4) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


213B. Advanced Atomic Structure. (4) N\textsubscript{2} symbols, continuous groups, fractional parentage coefficients, n electron systems.


215C. Quantum Statistical Mechanics and the Many Body Problem. (4) Lecture, three hours. Classical methods for interacting systems; quantum field theory techniques in statistical mechanics; Green’s function approach; Coulomb gas; imperfect Bose gas; electron/phonon interaction; superconductivity; phase transitions; theory of Fermi liquid. S/U or letter grading.


221A-221B-221C. Quantum Mechanics. (4-4-4) Lecture, three hours. S/U or letter grading. 221A. Fundamentals of quantum mechanics, operators and state vectors, equations of motion. 221B. Requisite: course 221A. Rotations and other symmetry operations, perturbation theory. 221C. Formal theory of collision processes, quantum theory of radiation, introduction to relativistic quantum mechanics.


223. Advanced Classical Mechanics. (4) Requisite: course 220. Topics such as nonlinear mechanics, ergodic theorems, and chaotic dynamics.

224. Introduction to the Strong Interaction. (4) Evidence concerning the strong interaction, particularly as exemplified in nucleon/nucleon and pion/nucleon systems. Isospin, scattering matrix, density matrix and polarization, properties of pions, pion exchange potential, phase shift analysis.


226E. Particle Astrophysics: Exploring Earliest and Extreme Universe. (4) Lecture, three and one half hours. Requisites: courses 210A, 210B, 221A, 221B. Receptive knowledge of high-energy astrophysics and discussion of latest developments in both experimentation and theory. Special emphasis on unified picture of universe that emerges from particle astrophysics, astronomy, and cosmology. S/U or letter grading.

230A-230B-230C. Quantum Field Theory. (6-6-6) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Modern quantum field theory, including free and interacting field quantization, operator and path integral formulation, renormalization theory and renormalization group methods, gauge theories, quantum electrodynamics and quantum chromodynamics, spontaneous symmetry breakdown, mass generation, and anomalies. S/U or letter grading.

230D. Quantum Field Theory. (4) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Topics in modern quantum field theory, including solitons, instabilities, and other topological defects, large N methods, finite temperature field theory, lattice field theory, effective field theory methods and chiral Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266A. Linear operators, review of integral calculus, integral transforms, partial differential equations. S/U or letter grading.


232A-232B-232C. Relativity. (4-4-4) Special and general theories, with applications to elementary particles and astrophysics.

232C. Special Topics in General Relativity. (4) Lecture, four hours. S/U or letter grading.


236. Geometry and Physics. (4) (Same as Mathematics M217.) Lecture, four hours. Interdisciplinary course on topics at interface between physics quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supersymmetry, Seiberg/Witten theory, conformal field theory, Calabi/Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.


237B. String Theory. (4) Lecture, four hours. Requisite: course 237A. Topics may include toroidal compactification, t-duality and d-branes, supersymmetric strings, orbitifolds, Kaluza/Kaluza and string compactifications of the bosonic string. Topics in strong coupling and dualities. S/U or letter grading.


243M. Condensed Matter Physics of Cells. (4) (Same as Biomechanics M243.) Seminar, four hours. Designed for graduate students. Basic paradigms of condensed matter physics and applications to biophysical modeling. S/U or letter grading.


266. Seminar: Propagation of Waves in Fluids. (2 to 4) Seminar, three hours. S/U or letter grading.

268. Seminar: Spectroscopy. (2 to 4) Seminar, three hours. S/U or letter grading.

269A. Seminar: Nuclear Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269B. Seminar: Elementary Particle Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269C. Seminar: Accelerator Physics. (2 to 4) Seminar, three hours. Physics principles governing design and performance analysis of particle accelerators, using existing accelerators as examples and emphasizing interplay among design goals, component performance, and operational experience. S/U grading.

CM286. Neurophysiology: Brain-Mind Problem. (4) (Formerly numbered C286B) (Same as Molecular, Cellular, and Integrative Physiology M286.) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, 1C, 4AL, 6A, 6B, 8C, Chemistry 14A or 20A, Mathematics 31A, 32A, 32B, 33A. How does mind emerge from brain? Provides summary of basic biophysics 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 weakness and use of them to understand link between neural circuits, their emergent neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write computer code to quantify neural activity patterns. Concurrently scheduled with course C186. S/U or letter grading.

290. Research Tutorial: Plasma Physics. (2 or 4) Three terms required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students directed toward problems of current research interest in plasma physics group, both experimental and theoretical. May be repeated for credit. S/U grading.

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.

292. Research Tutorial: Spectroscopy, Low-Temperature, and Solid-State Physics. (2 or 4) Required of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest in spectroscopy, low-temperature, and solid-state physics. May be repeated for credit. S/U grading.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff and students on problems of current research interest in physics, both experimental and theoretical (topics not limited to one field of physics). Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in accelerator physics. May be repeated for credit. S/U grading.

295. Research Tutorial: Soft Matter/Biological Physics. (2 or 4) Tutorial, one hour. Required of each graduate student doing research in this field. Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical. Topics include mathematical, physical, biochemical, and engineering sciences, as well as with other branches of biology. May be repeated for credit. S/U grading.

296. Research Topics in Physics. (2 or 4) Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students on current problems in experimental elementary particle physics. May be repeated for credit. S/U grading.

297. Research Tutorial: Nuclear Physics. (2 or 4) Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion on current topics in nuclear physics. May be repeated for credit. S/U grading.

298. Research Tutorial: Experimental Elementary Particle Physics. (2 or 4) Limited to six students. Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students on current problems in experimental elementary particle physics. May be repeated for credit. S/U grading.

299. Research Tutorial: Nuclear Physics. (2 or 4) Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion on current topics in nuclear physics. May be repeated for credit. S/U grading.

305. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Earth, Planetary, and Space Sciences M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparatory: one introductory lower division course (including laboratory) each of chemistry, life sciences, and physics and at least two Earth Science courses, preferably one with field experience. Classroom management, lesson design, assessment, history of science education. S/U or letter grading.

307. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Earth, Planetary, and Space Sciences M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: course M370A or Chemistry M370A or Earth and Space Sciences M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar- or workshop-style teaching 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.

490. Scientific Writing. (2) Seminar, 90 minutes. Practical guidelines for improved scientific writing and oral presentation. Writing of several short papers with subsequent analysis in class. Short blackboard and/or viewgraph presentations. Topics vary. S/U grading.

495. Teaching College Physics. (2) Seminar/discussion five or more one-hour meetings during term, plus intensive training week at beginning of Fall Quarter. Preparatory: all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques of teaching college physics. Ideas and techniques learned are applied and evaluated in the sections of each teaching assistant. May be repeated for credit. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Master's Comprehensive Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

598. Master's Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U or letter grading.

599. Ph.D. Research and Writing. (4 to 12) Tutorial, to be arranged. May be repeated for maximum of 18 units. S/U grading.

Scope and Objectives

Physiology is the science of the functional activities of the human body. This covers a wide range, including observations on humans and experiments on animals and model systems in order to understand principles. Physiology is the science most directly relevant to human medicine in all its specialties and to understanding all environmental factors affecting human life. It is also a pure science of great challenge because of the complexity of its problems and its extensive interaction with mathematical, physical, biochemical, and engineering sciences, as well as with other branches of biology.

Within the prescribed curriculum, students may specialize in cellular and molecular physiology, theoretical and mathematical physiology, and organ systems and integrative phenomena, including neuroscience and behavioral physiology.

The Department of Physiology offers postdoctoral training in research and welcomes students interested in articulated M.D./Ph.D. programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology Ph.D. Program. See http://www.mcip.ucla.edu.

Physiology

Upper Division Courses

100. Elements of Human Physiology. (6) Lecture. Designed for first-year dental students. Major organic body functions. With special supplementation, suitable for an introduction for general graduate students for whom 201A, 201B course sequence was too extensive. P/NP or 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

M210. Molecular and Cellular Mechanisms of Neuronal Integration. (5) (Same as Neuroscience M220 and Physiological Science M210) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

220. Methods in Cell Physiology. (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 cable properties, nonlinear conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

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 M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


Undergraduate Study

Political Science B.A.

Political Science Premajor

All students intending to major in Political Science must enroll as Political Science premajors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

Preparation for the Major

Required: Four lower division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Statistics 10 or 12 may be substituted for course 6 or 6R.

Students must complete all premajor courses with a 2.0 grade-point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower division requirements.

Transfer Students

Transfer applicants to the Political Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, game theory, American politics, or comparative politics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten upper division courses (40 units) selected from Political Science M105 through 199, each taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper division political science courses.

Upper division political science courses are organized into six fields: (I) political theory, (II) international relations, (III) American politics, (IV) comparative politics, (V) methods and models, and (VI) race and ethnic politics.

In fulfilling the requirement of 10 upper division political science courses, students must satisfy the following:

1. A concentration in one field consisting of at least three upper division courses in that field
2. A distribution requirement of at least one upper division course in each of three different fields outside the field of concentration; multfield courses from the concentration field may not satisfy a distribution field
3. Four additional political science courses to comprise the total of 10

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.

Students wishing to qualify for graduation with departmental honors must complete courses 191H and 196, in which a senior thesis is written. Successful completion of the honors program is indicated on the transcript and diploma.

Political Science Minor
The Undergraduate Council of the UCLA Academic Senate voted to suspend admissions to the Political Science minor effective Winter Quarter 2012. Students currently in the minor are not affected by the admissions suspension.

The Political Science minor introduces students to political processes and institutions.

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, 4269 Bunche Hall.

Required Lower Division Courses (10 units):
Any two lower division political science courses.

Required Upper Division Courses (20 units):
Any five upper division political science courses. At least three of the five courses must be taken in residence at UCLA.

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.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmqrintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Political Science offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Political Science.

Political Science
Lower Division Courses
6. Introduction to Data Analysis. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Not open for credit to students with credit for course 6R. Introduction to collection and analysis of political data with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from various fields of political science, among them comparative politics, international relations, American politics, and public administration. P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three hours; discussion, one hour. Exposition and analysis of key political theorists and concepts from Plato to the present. 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 study of 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 institutions and processes of democratic politics. Treatment of themes such as constitutionalism, representation, participation, and leadership coupled with particular emphasis on the American case. P/NP or letter grading.

50. Introduction to Comparative Politics. (5) Lecture, three hours; discussion, one hour. 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 50. 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.

60. Diversity and Disagreement: How to Succeed in Politics without Really Trying. (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, dissent, and democracy in fact work. Game play, to understand under what conditions diversity feeds productively or counterproductively into group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciation of the power, role, and impact of group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciating how different kinds of social organization promote or undercut social cognition and collective action. Such understanding needs to develop bottom-up through experiential and interactive learning, active and analytical learning, systems thinking, and real-world application. P/NP or letter grading.

Upper Division Courses

M107. Women and Politics. (4) (Same as Gender Studies M117.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to rapidly growing body of research and theory on women and politics in both national and international contexts. Topics may include women’s movement in U.S. and globally; women’s electoral participation; representation of women in Congress and in legislatures worldwide; women as heads of government and state; feminist critiques of political science; women and human rights; ERA; struggle for suffrage; mothers as political actors; women and military; women and development, and globalization. P/NP or letter grading.

Field I: Political Theory
M111A. Ancient and Medieval Political Theory. (4) (Same as Classics M121.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, St. Augustine, Aquinas, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion, and power. P/NP or letter grading.

M111B. Early Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Machiavelli, Montesquieu, Hobbes, Locke, Rousseau, Smith, Condorcet, and Kant and questions such as representation, property, autonomy, and political economy. P/NP or letter grading.

M111C. Late Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Bentham, De Tocqueville, Hegel, Mill, Marx, Nietzsche, Arendt, and Foucault and questions such as alienation, power, participation, and difference. P/NP or letter grading.

M112A. Problems in 20th-Century and Contemporary Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of selected major authors, issues, and arguments in contemporary democratic theory.

M112B. Invention of Democracy. (5) (Same as Classics M125.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and divergent interests. Examination of history and theory of ancient democracy. P/NP or letter grading.

M113A. Problems in 20th-Century and Contemporary Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of 20th century. P/NP or letter grading.

M113B. Politics, Theory, and Film. (4) Seminar, three hours. 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.
114. American Political Thought. (4) (Formerly numbered 114A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of critical analysis of American political thinkers from Puritan period to present. P/NP or letter grading.

M115A. Ethics and Governance. (4) (Same as Public Policy M115A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of applied ethics and governance, taking case-based approach, mixing normative and positive perspectives. Is action X morally right or wrong? How do people reason about whether action X is morally right or wrong? How do governance structures influence how people reason about whether action X is morally right or wrong? How can we design governance structures that encourage people to act ethically, contribute to public goods, and lead productive and fulfilled lives? May be applied toward Field I or III. P/NP or letter grading.

M115B. Political Ethics. (4) (Same as Public Policy M126.) Lecture, three or four hours; discussion, one hour (when scheduled). Course M115A is not requisite to M115B. Designed for juniors/seniors. Study of major issues in morality, or lack thereof, of political life. Coverage of both readings in moral and political theory and real-world examples such as Watergate, terrorism, civil rights politics, and presidential campaigns. Topics: Ethical theory; role of political ethics; Machiavellian amorality; democratic responsibility and representation; ethics of compromise, dirty hands problems, international ethics. P/NP or letter grading.

M115C. Citizenship and Public Service. (4) (Same as Civic Engagement M115.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of ideas of citizenship and public service, how these ideas have changed over time, and frameworks for thinking about place in market and globalization. P/NP or letter grading.

115D. Diversity, Disagreement, and Democracy: Can't We All Just Get Along? (4) (Formerly numbered M115D.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Exposition and critical analysis of American political theory, with special emphasis on contemporary problems. P/NP or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition of U.S. foreign policy for forces entering into formation and implementation of American foreign policy, with special emphasis on contemporary problems. P/NP or letter grading.

120C. U.S. Intelligence Agencies in Theory and Practice. (4) (Same as Public Policy M118.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors.s. Study of the evolution of the U.S. intelligence community from Cold War to present. Particularly in light of 9/11 and Iraq war, few organizations are more important and less understood. Course sequences from fiction, comparing how intelligence agencies are portrayed in popular entertainment to how they operate in practice. Fundamentals of intelligence collection (from satellites to spies) and analytic tradecraft; key challenges such as role of ethics in intelligence; performance of U.S. intelligence agencies during Cold War; and intelligence community's ability to adapt to rise of terrorism. Application of general concepts to specific case studies of nuclear proliferation, 2003 Iraqi crisis, and September 11, 2001, terrorist attacks. P/NP 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 formulation of American foreign policy with respect to individual cases. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

121B. Crisis Decision Making in U.S. Foreign Policy. (4) (Same as Public Policy CM117.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: courses 120A, 137A, 137B. In-depth look at theory and practice of U.S. foreign policy-making. Assessment of competing theories of international relations and application to specific case studies. Weekly role plays of foreign policy-makers and final crisis simulation exercise. Letter grading.

122. 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 created through cooperation and development. P/NP or letter grading.

M122B. Global Environment and World Politics. (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Required prerequisite: course 20. Global environmental issues such as climate change, integration law, policy, and political science perspectives. P/NP 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. Letter grading.

123B. International Organizations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promotion of international cooperation. Required readings include both statistical and formal models. P/NP or letter grading.

124A. International Political Economy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of political aspects of international economic issues. P/NP 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/NP or letter grading.

125. 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/NP or letter grading.

M125B. U.S. National Security Policy. (4) (Same as Public Policy CM125.) Lecture, three or four hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Examination of contemporary U.S. national security challenges and how policymakers develop strategies to address them. Exploration of Cold War policy development of American national security strategic doctrine, and U.S. foreign policymaking process from 1945 to present. Examination of broad spectrum of issues confronting today's foreign policy leaders, from threats to vital U.S. interests (WMD proliferation and terrorism), to regional security and economic challenges (Iraq, China), to humanitarian intervention and nation-building (Darfur, Afghanistan). Students draft analytic options memos and deliver oral presentations on how to handle six current national security mini-cases. Provides overview of current challenges and hones student analytic skills to examine these challenges from strategic policy perspective. Letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Theorizing 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 regard to European security in context of Atlantic Alliance. P/NP or letter grading.

128A. U.S./Soviet Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors.
Survey of relations between the U.S. and former Soviet Union from Revolutions of 1917 to collapse of the U.S.S.R. in 1991.

128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: courses 20, 128A. Designed for juniors/seniors. Survey of foreign policy of the Russian Federation, with special emphasis on Russia's relations with NATO, the former communist states of East Central Europe, China, and the Commonwealth of Independent States.

129. Diplomacy and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: courses 20, 128A. 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/NP or letter grading.

132A-M132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of modern Middle Eastern governments and politics, with particular attention to inter-Arab politics, Arab-Israeli problem, and Persian Gulf area. M132B. (Same as Honors-Collegium M137.) Role of great powers in Middle Eastern policies, including U.S., Soviet, and West European policies since 1945.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of modern decision-making tools and processes in foreign policy planning. P/NP or letter grading.

135. International Relations of China. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 120A. Designed for juniors/seniors. Contrasts purposive and process models of individual and group decision making. Impact of strategic interaction and situational factors on foreign policy decision making. Implications for policy choice of tools of statecraft (i.e., threats/promises, military/economic/diplomacy). P/NP or letter grading.

137A. International Relations Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Relations of China with its neighbors and other powers, with emphasis on contemporary interests and policies of China vis-à-vis U.S. P/NP or letter grading.

137B. International Relations Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of various theoretical approaches to international relations. P/NP or letter grading.

138A. International Politics, 1815 to 1914. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of European great power politics, beginning with peace settlement at end of Napoleonic wars and ending with coming of World War I. P/NP or letter grading.

138B. International Politics, 1914 to the Present. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. First World War, failure of peace settlement, origins of Second World War, Cold War, and post-Cold War period. P/NP or letter grading.

139. Special Studies in International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: two courses in Field II, or consent of instructor. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to international relations. Sections offered on regular basis, with topics announced in advance. May be repeated for credit with topic change. P/NP or letter grading.

Field III: American Politics

140A-140B-140C. National Institutions. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. 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 policy-making. 140C. Supreme Court, Introduction to American constitutional development and role of Supreme Court as interpreter of the U.S. Constitution. Requisite: Supreme Court cases as well as various historical and current commentaries.

M141A-141E. Electoral Politics. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading: M141A. Political Psychology. (4) Same as Psychology M138.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of political behavior, political socialization, personality and politics, racial conflict, and psychological analysis of public opinion on these issues. P/NP or letter grading.

141B. Public Opinion and Voting Behavior. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of public opinion in elections, relationships of political attitudes to the vote decision, and influence of public opinion on public policy formulation. P/NP or letter grading.

141C. 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/NP or letter grading.

M141D. Mass Media and Elections. (4) Same as Communication Studies M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Assessment of manner in which Americans’ political beliefs, choices, and actions are influenced by mass media presentations, particularly during election campaigns. Topics include processes of political attitude formation and change, different types of media “effects,” and role of the media in the American political process. P/NP or letter grading.

141E. Elections, Media, and Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis, Downs spatial model of elections, media and political 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/NP 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 strategies, political parties, membership problems and party activists, political finance, and policy formulation practices. P/NP or letter grading.

M142D. Understanding Public Issue Life Cycle. (4) (Same as Public Policy M127.) Lecture, three or four hours; discussion, one hour (when scheduled). Focused on the recommended preparation: courses 10, 40, and one course from Economics 1, 2, 5, 11, or 101. Examination of how public issue life cycle is shaped by (1) economic and political incentives of various actors—business, news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.


143B. Subnational Government: Metropolitan Government. (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 government policies in central cities and suburban areas. Study of some major issues in metropolitan governance through classic and contemporary readings on political power, political and economic cities, and segregation, as well as political incorporation and racial/ethnic coalitions. P/NP or letter grading.

143C. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of political, social, and economic evolution of American suburbs, particularly in post-WWII era. Dominant themes focus primarily on historical patterns and implications of suburbanization, with an emphasis on inclusion and exclusion; class conflict and gender roles; classic and contemporary theories of metropolitan governance; and civic/political implications of American suburbanization. Selected topics include housing, schools, and taxes; immigrant and ethnic minority suburbanization; suburban sprawl and uneven growth; suburban decline; and regionalism. P/NP or letter grading.

145A-145E. Public Law and Judicial Process. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading: 145A. Anglo-American Legal System. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Evolution of English common law courts and their legal system with emphasis on development of basic concepts of law which were received from that system in U.S. and remain relevant today. P/NP or letter grading.


145C. Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional questions concerning civil liberties and liberties under constitution. P/NP or letter grading.

145D. Judicial Oversight of Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Legal controls of administration action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within these limits. P/NP or letter grading.

145E. Constitutional 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 suspected, accused, and convicted of crimes, with attention to how protections have changed through history. P/NP or letter grading.

146B-146D. Organization Theory, Public Policy, and Administration. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

146B. Bureaucracy and Public Management. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: familiarity with American government. Requisite: course 40. Designed for juniors/seniors. Nature of bureaucracy in modern gov-
151A. Government and Politics of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government and politics in contemporary Africa, with special attention to state/society relations, interaction of politics and economic development, political institutions, and conflict and conflict resolution. Letter grading.

151B. Political Economy of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interactions of shared identities, evidence across time and space of association between variation in discursive distance and transformation of dictatorship into democracy. Letter grading.

154A. Roots of Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of democracy around world from its beginnings in ancient Greece to present day. Techniques of comparative politics used to evaluate major arguments about why different countries become democratic at different times, and why some remain authoritarian. P/ NP or letter grading.

154B. Fascism and Right-Wing Extremism: Historical Past and Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical rise of Fascism in Germany, Italy, and Eastern Europe; its social foundations; ideological foundations, including Nazi economic policy (Tooze, *Wages of Destruction*). Do today's xenophobic movements in Europe and U.S. resemble earlier Fascism in ideology and social balance? P/ NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of political environment in major Southeast Asian states, with special attention to legacy of Soviet Union. P/ NP or letter grading.

157. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government in the Arab States, Turkey, Israel, and Iran. P/ NP or letter grading.

155. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government, political parties, and institutions in Southeast Asia. Use of comparative analysis to address major problems confronting region, including democracies in transition, authoritarian rule, civil war, democratic movement, legitimation of political parties, and ideologies; political strategies of Islamic activism. P/ NP or letter grading.

159C. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive study of institutions and political development in Russia, with special attention to legacy of Soviet Union. P/ NP or letter grading.

156. Comparative Analysis of Government Institutions. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of major institutional structures such as presidentialism vs. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, federal vs. unitary systems, plurality vs. proportional electoral systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their results given institutional frameworks and actions 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 M100B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political economy approach to puzzle of why some countries are rich and others are poor and why, among other things, they are not 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 in rates and levels of economic development. 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). Preparation: 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 how governments and political institutions affect economic development. May be applied toward either Field IV or V Letter grading.

169A. Chinese Revolution and Age of Mao Zedong. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socio-economic foundations and political dynamics of revolution in modern China.

169B. China in Age of Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of China’s political and ideological transformation in post-Mao era. Assessment of impact of changing socioeconomic conditions on institutions and policies of Chinese Communist Party. Exploration of evolution of 1989 Tiananmen crisis and consequences for China of collapse of Communist in East Asia and the Soviet Union.

160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Structure and operation of contemporary Japanese political system, with special attention to domestic political forces and problems.

164A. Human Rights. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Interaction between how language is used (discourse) to talk or write about politics and whether dictatorship or democracy prevails. Problems of collective action in voting, protest, and 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 variation in discursive distance and transformation of dictatorship into democracy. Letter grading.

149. Special Topics in American Government and Politics. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for topics to be of specific term. P/ NP or letter grading.

147A. American Political Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to comparison of American political ideas and institutions that drive durable change over time. Examination of theories, concepts, and analytical tools at center of developmental inquiry. P/ NP or letter grading.

147B. Period Inquiry. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for course 40. Requisite: course 40. Designed for juniors/seniors. Introduction to one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods, Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/ NP or letter grading.

147C. Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for course 40. Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods, Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/ NP or letter grading.

149. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Two courses in Field III. Designed for juniors/seniors. Intensive examination of one or more complex problems of 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) (Formerly numbered 118) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one or several different uses of violence in revolutionary process: demonstrations, mass uprisings, coup d’etat, assassination, and terrorism. P/ NP or letter grading.

151A-151B-151C. African Politics. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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. Intensive 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.

M180B. African American Freedom Narratives, (4)
(Formerly numbered M114D.) (Same as African American Studies M114D.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course (when scheduled). Historical, psychological, and thematic interpretation of selected narratives and storytelling in African American culture and politics. P/NP or letter grading.

M180C. Malcolm X and Black Liberation, (4)
(Formerly numbered M114E.) (Same as African American Studies M114E.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of black radicalism in mid-20th century, with special attention to contribution of Malcolm X and black nationalism to African-American liberation movement. P/NP or letter grading.

181. Ethnic Politics: Chicano/Latino Politics, (4)
(Formerly numbered 144A.) 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, sociology, and political science. Requisite: course 40. Designed for juniors/seniors. Study of the political consequences of incomplete information and information asymmetries. P/NP or letter grading.

182. Ethnic Politics: African American Politics, (4)
(Formerly numbered M144B.) (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, sociology, and political science. Requisite: course 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in the U.S., touching on conditions facing racial and ethnic groups, with black Americans being primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

183. Equal Rights and Unequal Education, (4)
(Formerly numbered M154A.) Lecture, three or four hours; laboratory, 24 hours. Limited to CAPPP Program students. Seminars 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. Exploration of features of solid and significant research; intensive writing. Letter grading.

191H. Research Design Seminar for Honors Thesis, (4) Seminar, four hours. Preparation: one course in 191 series, 3.5 grade-point average in upper division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors thesis. Students define their research topic, select suitable research method, determine appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Various sessions to consist of constructive discussions of students’ topics, methods, and problems in research, as well as general considerations of political science research topics and methodology. May be repeated for credit. P/NP grading.

191H. Research Design Seminar for Honors Thesis, (4) Seminar, four hours. Preparation: one course in 191 series, 3.5 grade-point average in upper division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors thesis. Students define their research topic, select suitable research method, determine appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Various sessions to consist of constructive discussions of students’ topics, methods, and problems in research, as well as general considerations of political science research topics and methodology. May be repeated for credit. P/NP grading.

191H. Research Design Seminar for Honors Thesis, (4) Seminar, four hours. Preparation: one course in 191 series, 3.5 grade-point average in upper division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors thesis. Students define their research topic, select suitable research method, determine appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Various sessions to consist of constructive discussions of students’ topics, methods, and problems in research, as well as general considerations of political science research topics and methodology. May be repeated for credit. P/NP grading.

192. Asian American Thought, (4)
Lecture, three hours; laboratory, 24 hours. Limited to CAPPP Program students. Seminars 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. Exploration of features of solid and significant research; intensive writing. Letter grading.
195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues relevant to the internship. May be repeated for credit with consent of Center for Community Learning. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NC or letter grading.

M195DC. CAPPP Washington, DC, Internships. (4) (Same as History M195DC and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NC or letter grading.

198. Honors Research in Political Science. (1 to 4) Tutorial, three hours. Requisite: course 191H. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NC or letter grading.

Graduate Courses

Formal Theory and Quantitative Methods


200CL. Statistical Methods Laboratory III. (4) Laboratory, three hours. Requisites: courses 200A, 200B. Corequisite: course 200C. Study of theory and application of linear regression analysis in political and social sciences. Starting with basic knowledge of probability and statistics, investigation of computational and interpretation of regression results, their statistical justifications, diagnostics for violations of assumptions, stability of results under perturbations of data and models, and extensions into nonstandard situations. Topics may include classical linear model, statistical inference and hypothesis testing, vector geometry of regression, diagnostics, weighted least squares, cross validation and model selection, resampling, outliers, missing data, errors in variables, transformations, robust regression, and modern computing packages. Letter grading.

200D. Quantitative Methods in Politics. (4) Seminar, three hours. Preparation: knowledge of calculus and matrix algebra. Recommended requisite: course 200C. Designed to build on foundations set in course 200C. Focus on logical and mathematical structure underlying some statistical methods that are frequently used in political science. Emphasis on understanding structure of the models rather than on gaining added experience using them to analyze data. Applied data analysis. Letter grading.

200E. Advanced Quantitative Methods. (4) Seminar, three hours. Topics vary each year and have included instrumental variables principal components and scaling, models of selection, models of duration, ecological models, and architectural models. Student-led presentations on recent statistical theory and applications. Monte Carlo simulations and replications of well-known studies used to demonstrate how various models work and how they are applied in practice. S/U or letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without presupposing mathematical background. Model building, collective goods, unannity 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, mathematics, and mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic approach applied to politics and public economy, concept of rationality, and agenda strategy, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major topics in formal political economy. Investigation of models of regulation, trade protection, collective bargaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Requisite: course 203A. Corequisite: course 203A, course 215. Microeconomic techniques used in formal political science, with focus on market failures and on modeling individual choice in normmarket situations. Specific topics include exteriors, public goods, incentive mechanisms, collective action, spatial models, structure-induced equilibrium, and information asymmetries.

204A. Game Theory in Politics I. (Formally numbered 204.) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucratic interests, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical literature in political science. S/U or letter grading.

204B. Game Theory in Politics II. (4) Seminar, three hours; fieldwork, eight hours. Requisite: course 204A. Intermediate game theory course. Topics include games of incomplete information, cheap talk games, and bargaining. Topics concern political participation, public goods, legislatures, bureaucracies, conflict, and communication. Designed to help students use game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; fieldwork, eight hours. Requisites: courses 204A, 204B. Advanced game theory course, with emphasis on new and/or advanced techniques. Topics include timing games, stochastic games, and mechanism design. Applications concern bureaucracies, conflict mediation, and political transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

205E. Bayesian Econometrics. (4) (Same as Economics M215E.) Lecture, three hours. Preparation: knowledge of calculus or introductory probability. Designed for graduate economics and political science graduate students. S/U or letter grading.

M208D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257 and Statistics M224.) 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 struc-tured-means factory analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.

M208E. Bayesian Econometrics. (4) (Same as Economics M215E.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simplification of models, and causal modeling. May be repeated for credit. S/U or letter grading.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours. S/U or letter grading.

Political Theory

210A-210B. Introduction to Political Theory. (4-4) Lecture, three hours. Exploration of major texts and issues in political theory. 210A. Classical and Medieval Formulations from Plato through Aquinas; 210B. Early Modern Period from Machiavelli through the Enlightenment.


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 democracy. S/U or letter grading.

215. Liberalism and Its Critics. (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, 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.

M216. Toleration, Pluralism, and Diversity. (4) (Same as Public Policy M216B.) Seminar, three hours. Prior experience in political or legal theory helpful. Exploration of both abstract concepts of toleration and contemporary disputes. S/U or letter grading.

217. Selected Texts in Political Theory. (4) Seminar, three hours. Critical examination of major texts in political theory, with particular attention to their philosophical system, their relations to contemporary political and intellectual currents, and importance of system for present-day political analysis. S/U or letter grading.


International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international relations theory: main schools of thought, methods of analysis, and research styles. Letter grading.

220B. International Relations Core Seminar II. (4) Seminar, three hours. Further analysis of academic work in international relations and introduction to design of research project in this area. Letter grading.

220C. International Relations Research Seminar. (4) Seminar, three hours; tutorial meetings, to be arranged. Design, implementation, and presentation of research project in international relations within combination of seminar and tutorial settings. Letter grading.

222. Seminar: Strategic Interaction. (4) Seminar, three hours. A strategic move often influences the other person's choice by affecting his expectations of how we will respond. Discussion of theories of deterrence, coercive diplomacy, crisis management, war termination, and negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.

223. Strategies of Modern War. (4) Seminar, three hours. Analysis of various national security problems in both their military/technical and political dimensions. Letter grading.

225. American Foreign Policy. (4) Discussion, three hours. Course 220A and 220B. Students will discuss foreign policy-making at the individual, small group, bureaucratic, and domestic political levels. Application to selected cases in American foreign policy.


231. International Political Economy I. (4) Seminar, three hours. Interaction between international trade and investment and domestic political economies of both industrialized and industrializing societies.

232. International Political Economy II. (4) Seminar, three hours. Designed to develop Ph.D. students’ skills in setting up and solving simple institutional design, political economy macro, signaling, and participation models, as well as two-level game models of domestic politics and international conflict and cooperation, with emphasis on applications in international political economy and comparative politics.

233A-233B-233C. Political Economy Workshops (4-4-4). Discussion, two hours. Preparation: successful completion of major field examinations. Workshops for students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper of publishable length and quality required. S/U or letter grading.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0-0-12). Discussion, two hours. Preparation: successful completion of major field examinations. Course 234A is required for 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 required. In Progress (234A, 234B) and letter (234C) grading.

239. Selected Topics in International Relations. (4) Seminar, three hours. S/U or letter grading.

Comparative Politics

240A-240B. Seminars: Comparative Politics. (4-4) Seminar, three hours. Course 240A is not requisite to 240B. Letter grading. 240A. Survey of ideas and approaches that have been historically important in the study 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 practitioners in the field.


244. Latin American Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Western European politics. S/U or letter grading.

246B. Political Development of Modern Europe. (4) Seminar, three hours; discussion, one hour (when scheduled). Principal phases of political development from high feudalism to the present, together with theories of causation.


247A. Evolution of Soviet and Russian Politics. (4) Seminar, three hours; discussion, one hour (when scheduled). Discussion seminar surveying political evolution of Soviet and post-Soviet transformation.

247B. Domestic Context of Russian Foreign Policy. (4) Seminar, three hours. Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.


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 consequence of structural reform in Communist systems; theories of post-Leninist political pluralization and convergence.

254A-254B. Institutions and Comparative Politics. (4-4) Seminar, three hours; discussion, one hour (when scheduled).

255. 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. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and pluralist vs. proportional electoral systems.

254B. 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 these delegations are made and controlled.

255. Seminar: Political Economy of Developing Countries. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization. S/U or letter grading.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of international economic developments, national foreign economic policies. S/U or letter grading.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics. S/U or letter grading.

258. Comparative Politics Proseminar. (2) Seminar, 90 minutes. Biweekly speaker series featuring presentation of unpublished research papers by comparative politics faculty members and as well as external scholars. Required participation and written assignments. S/U grading.


American Politics


M261A. Proseminar: Political Psychology. (4) (Same as History M236A and Psychology M228A.) Seminar, three hours. Introductory to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

261B. Mass Attitudes and Political Behavior. (4) Seminar, three hours. Requisite: course 141B or 260A. Analysis of development and 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.

M261D. Seminar: Political Psychology. (4) (Same as Psychology M228B.) Discussion, three hours. Requisite: course M261A or Psychology 220A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

M261E. Critical Problems in Political Psychology. (4) (Same as Psychology M228C.) Discussion, three hours. S/U or letter grading.

262. Political Parties. (4) Seminar, three hours. Critical examination of literature on party systems and organizations. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.


266. Group Theories of Politics. (4) Discussion, three hours. Critical appraisal of “group theory” approaches to study of political decision making, with special attention to empirical research problems and findings. S/U or letter grading.


M268B. Electoral Democracy: Theory and Behavior. (4) Same as Public Policy M246. Seminar, three hours. Examination of both democratic theory and study of American politics—public opinion; nature and purpose of elections; representation; parties; and purpose of democracy as whole—through critical reappraisal of theories and modern research in American political behavior. Letter grading.

269. Seminar: Political Behavior. (3) Seminar, three hours. 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. Discussion of implications for understanding politics of thinking of bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macromodels, modes of political participation, state, government regulation, growth of government, bureaucratic elections, public policy, inflation. 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 bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macromodels, modes of political participation, state, government regulation, growth of government, bureaucratic elections, public policy, inflation. 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. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be repeated only three times toward minimum course requirement in first two years. May be repeated. S/U or letter grading.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.


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Associate Professors

Julienne E. Bower, Ph.D.
John D. Brooks, Ph.D., in Residence
Giovanni Coppola, M.D., in Residence
Jamie D. Feusner, M.D., in Residence
Sherrel G. Howard, Ph.D.
Megan D. Johnson, M.D., Ph.D., in Residence
Sheryl H. Katsakoa-Endo, M.D., M.S.H.S., in Residence
Patricia E. Lester, M.D., in Residence (Jane and Marc Nathanson Endowed Professor)
Gerald S. Lipshutz, M.D.
Sandra K. Loo, Ph.D., in Residence
Katherine L. Narr, Ph.D., in Residence
Juan Quintana, M.D., Ph.D., in Residence
Lara A. Ray, Ph.D.
Catherine A. Sugar, Ph.D., in Residence
Jeffrey J. Wood, Ph.D.

Assistant Professors

Elizabeth A. Bromley, M.D., Ph.D., in Residence
Bowen Chun, M.D., Ph.D., in Residence
Warren S. Comulada, Ph.D., in Residence
Andrew C. Dean, Ph.D., in Residence
Scott C. Fears, M.D., Ph.D., in Residence
Todd S. Hale, Ph.D., in Residence
Shafail S. Jeste, M.D., in Residence
Erika L. Numri, M.D., Ph.D., in Residence
Tara S. Peris, M.D., in Residence
Jesse A. Rissman, Ph.D.
Dallas T. Sweeney, Ph.D., in Residence
April D. Thames, Ph.D., in Residence

Professors of Clinical Psychiatry

Brenda A. Bursch, Ph.D.
Mark DeAntonio, M.D.
David T. Feinberg, M.D., M.B.A.
Michael J. Gittin, M.D.
Charles S. Grob, M.D.
Barry H. Guze, M.D.
Bruce L. Kagan, M.D., Ph.D.
James J. McGuire, M.D.
James E. Spar, M.D.
Thomas B. Strouse, M.D. (Maddie Katz Endowed Professor of Palliative Care Research and Education)

Scope and Objectives

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 department training program, must also meet required course requisites determined by specific educational programs.

Clinical Psychology Internship

The department offers a 12-month Clinical Psychology Internship. Students enrolled in clinical psychology doctoral programs at APA-approved universities are eligible to apply. Applications are accepted through November 1. The primary goals of the internship are to provide a year of intensive exposure to a wide variety of clinical and human services experiences and to maximize the personal growth of each professional. Students interested in this certificate program should contact David Crawford, 37-356 Semel Institute, (310) 794-5715, e-mail: dcrawford@mednet.ucla.edu, or see http://www.semel.ucla.edu/psychology/internship.

Information on clinical practicums that are offered in conjunction with other educational institutions and UCLA departments may be obtained from the department office.
actions, reinforcement learning, meditation, neurofeedback, and time management. Critical appraisal of tools to help students distinguish scientifically validated procedures. Offered in summer only. Letter grading.


199. Directed Research in Psychiatry and Biobehavioral Sciences. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Editorial Board Apprenticeship. (2) (Same as Health Policy and Management M249D.) Seminar, two hours. Hourly supervised research and advanced Ph.D. students. Participation in peer review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor on suitability for full review. S/U or letter grading.

M214. Cross-Cultural Studies of Socialization and Children. (4) (Same as Anthropology M238P) Seminar, three hours. Selected topics in cross-cultural study of socialization and child training. Methods, ethnographic data, and theoretical orientations. Emphasis on current research. Weekly seminar covering basic clinical aspects of child psychology. Discussion of issues with respect to current systems of care. Topics vary from term to term. May be repeated for credit.

M226. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M226 and Neurosurgery M227.) Lecture, four hours. Starting with basic principles of magnetic resonance imaging (MRI), with emphasis on developing advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.

M270. Neural Basis of Memory. (4) (Same as Neuroscience M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurochemical data interpreted into model of memory. Use of phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

M272. Psychological Anthropology. (4) (Same as Anthropology M234Q.) Lecture, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such topics as culture and theory of memory, sociocultural and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be repeated for credit.

M273. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M236Q, Community Health Sciences M244, and Nursing M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.


M230. Communication of Science. (2) (Same as Biomatics M262.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writings and their good practice. Details of writing specific articles: methods, results, discussion. Writing of review article. Grant submissions: aims, background, results, design. Role of appendices. Communicating with lay public. S/U or letter grading.


M234. Affective Disorders. (2 or 4) (Same as Psychology M238.) Lecture, two hours. Preparation: completion of professional health sciences degree (M.D., D.D.S., D.N.Sc., or Ph.D.). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medi cal and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

M236. Clinical Pharmacology. (2) (Same as Biomatics M262 and Medicine M262.) Lecture, two hours. Discussion of recent developments in pharmacology, epidemiology, pharmacy, pharmacology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper.


243A-243B-243C. Mental Retardation and Chronic Medical Illness Interdisciplinary Core Curriculum. (1-1-1) Lecture, 90 minutes. Survey series on major topics of mental retardation and chronic medical illness, covering epidemiology, nosology, assessment, healthcare delivery systems, basic genetics, nutrition, direct care, disabilities. Progress of students for 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.

253. Seminar: Child Development. (1) (Same as Psychology M246.) Lecture, 90 minutes. Discussion of psychological aspects of mental retardation, including classification, description, etiology, theory, prevention, treatment, assessment, modern and future developments, and input from other disciplines (ethics, law, religion, welfare systems). S/U or letter grading.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one-half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); legal principles, ethics, legal codes, issues, and how to resolve them. Use of videotapes and discussion of cases.

261. Advanced Seminar: Child and Adolescent Psychopharmacology. (2-2) Seminar, five hours. Reading, class discussion, and one half hour seminar. Laboratory, teaching methods and critical reviews of medical literature as basis for rational pharmacotherapy in children and adolescents. Major focus on development of a clinical decision-making process, given the limited scientific evidence supporting pharmacological practice in the field. S/U grading.

263. Clinical Pharmacology. (2) (Same as Biomatics M262 and Medicine M262.) Lecture, two hours. Preparation: completion of professional health sciences degree (M.D., D.D.S., D.N.Sc., or Ph.D.). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine in children and adolescents. Focus on development of a clinical decision-making process, given the limited scientific evidence supporting pharmacological practice in the field.

264. Health and Mental Health Disparities from Psychosocial and Cultural Perspectives. (4) Seminar, three hours. Discussion of recent developments in psychology, mental health, and education, and the challenges faced by African American students, resident physicians, and juniors/seniors (with consent of instructor) interested in learning about cultural, social, and mental health disparities. Survey course to introduce students to health disparities that exist for ethnic minorities and factors that may contribute to disproportionate prevalence rates. Review and discussion of research literature, with focus on specific diseases such as HIV/AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of stereotypes and myths about healthcare of ethnic populations. Examination of psychosocial and cultural contexts as potential or controlling factors. S/U or letter grading.

266. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M226 and Neurosurgery M227.) Lecture, four hours. Starting with basic principles of magnetic resonance imaging (MRI), with emphasis on developing advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.

270. Neural Basis of Memory. (4) (Same as Neuroscience M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurochemical data interpreted into model of memory. Use of phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

272. Psychological Anthropology. (4) (Same as Anthropology M234Q.) Lecture, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such topics as culture and theory of memory, sociocultural and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be repeated for credit.

273. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M236Q, Community Health Sciences M244, and Nursing M273.) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.


277. Cognitive Behavior Therapy with Children: Treatment and Systems of Care. (2 or 4) (Same as Psychology M285.) Seminar, 90 minutes. Designed for graduate students. Cognitive/behavioral approaches to prevention and treatment of mental health problems in children. Examination of service delivery systems for treating troubled youth and discussion of issues with respect to current systems of care. Major problems include detention, and how to resolve them. Use of videotapes and discussion of cases.

281A-281B-281C. Behavioral Therapy in Educa tion. (4-4-4) Seminar, 12 hours. Seminar, 90 minutes. 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.

282. Anthropological Perspectives on Human Body. (2 to 4) (Same as Anthropology M234T.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

288A-288B. Principles of Neuroimaging I, II, (4-4) (Formerly numbered 284A-284B.) (Same as Neuroscience M288A-B.) Lecture, four and one-half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: course 202. Course 288A is requisite to M288B. 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 imaging. Letter grading.

M285. Functional Magnetic Resonance Imaging: Techniques and Applications. (3) (Same as Bioengineering M284, Biomedical Physics M285, Neuroscience M285, and Psychology M278.) Lecture, three hours. In-depth examination of techniques involving magnetic resonance imaging, including electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding how to design and analyze paradigms, and how to interpret results. Labatory visits and design and implementation of functional MRI experiments. S/U or letter grading.


287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Programing of small group intervention for adults and children at risk for suicide, depression, conduct problems, and HIV, with didactic and experiential techniques. M288. 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 course. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.


292. Functional Neuroanatomy for Neuropsychologists. (2) Lecture, two hours. Preparation: graduate-level neuroanatomy course. Designed for neuropsychology and radiology postdoctoral fellows and neuropsychology graduate students. Human functional anatomy from systems perspective, integrating results from lesion research and functional neuroimaging, students learn to identify gyri and sulci on MR images and memorize associated Brodmann's region. Letter grading.

293. Professional Development: Presentations and Preparation for Academic Interviews. (2) Seminar, two hours. Exposure range of professional development skills essential to academic career development. Hands-on skills and practice in preparing and delivering presentations for various audiences, and preparing research and/or teaching statements for job applications. S/U grading.

294. Essentials 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.


296. Research Group Seminar: Practicum. (2) Research group seminar. Designed for graduate students who plan to conduct research studies. Coverage of (1) publishing process—submitting manuscripts to journals, selecting appropriate journals, frequent 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, criteria by which applications are reviewed and what to emphasize in each section, (4) grant mechanisms specifically designed for new investigators, (5) human subjects section for grant applications and IRB issues, and (6) preparation of budgets (clear and detailed) and budget justification for NIH submissions. S/U or letter grading.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants' current research. Topics include current research interests, presentation of didactics on methodologies, and presentation of research group meeting, three hours. Designed for new investigators, (5) human subjects training, (2) seminar, two hours; discussion, one hour. Data analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding how to design and analyze paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

405. Individual Case Supervision. (1 to 4) Preparation: submission of written proposal to be instructed by instructor and student prior to enrollment; additional information and proposal forms available in Office of Medical Education. 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.

406. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours; discussion, one hour. Sponsored for graduate and medical students and residents familiar with the DSM-IV TR diagnostic criteria for posttraumatic stress disorder (PTSD), as well as biopsychosocial sequelae. Examination and application of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

405A. Fundamentals of Trauma and Sexual Abuse Research. (4) Seminar, three hours; discussion, one hour. Designed for graduate and medical students and residents familiar with the DSM-IV TR diagnostic criteria for posttraumatic stress disorder (PTSD), as well as biopsychosocial sequelae. Examination and application of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

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 genetics, 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.
Scope and Objectives

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 UCLA 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 UCLA Psychology Department is ranked as one of the top departments in the country.

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, etc.
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. A choice of three undergraduate majors is offered: a B.A. degree in Psychology and B.S. degrees in Cognitive Science and 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 new and valuable insights into the understanding of human behavior, including their own.

At the graduate level, the department offers training leading to the Ph.D. degree with emphases in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, developmental, health, learning and behavior, social, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and professional psychologists.

### Undergraduate Study

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.

### Psychology B.A.

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 an 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 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, 1531 Franz Hall.

### Psychology Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology premajor. Psychology premajors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as freshmen) or file a petition to declare the Psychology major (for students who entered UCLA as transfers).

### Preparation for the Major

Each of the following required courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses): Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A or Physics 10 or 1A or 6A; one course from Computer Science 2, Mathematics 2, 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, 31; Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology premajor before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

### Freshman Students

Students may declare the Psychology premajor once they have established a 2.5 grade-point average in at least one preparation for the major course.

Students must petition to declare the Psychology major and can do so once they complete all seven preparation for the major courses and submit an application to enter the major by the end of the Fall Quarter of their third year at UCLA. Admission into the major is based on student academic performance in the preparation courses. Students who have a grade-point average of 2.9 or higher in the preparation coursework and have met all other Psychology premajor requirements are guaranteed entrance into the major after they submit the application by the above deadline. Students with a grade-point average between 2.5 and 2.89 in the preparation coursework enter a competitive application pool and are admitted only if there is space available in the major. Students with a grade-point average below 2.5 in the preparation coursework are not eligible to apply for admission to the major.

### Transfer Students

Transfer applicants to the Psychology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course equivalent to Life Sciences 1 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 at [http://www.admissions.ucla.edu/prospect/adm_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

### The Major

**Required:** (1) Five core courses, with at least two from each category and a fifth course from either category: (a) Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133L or 161), 135, 150; (2) one laboratory/fieldwork course from 101, 111, 116, 121, 126, 131, 136A, 136B, 136C, 151, 186A through 186D; (3) four additional upper division elective courses (16 units) in psychology.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper division psychology electives. All three courses must be completed to receive psychology elective credit.

Each upper division course must be taken for a letter grade. A C– or better is required in each core course and in at least one laboratory/fieldwork course. Students must have a 2.0 grade-point average in all upper division courses selected to satisfy major requirements.

### Cognitive Science B.S.

#### Capstone Major

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. Under special circumstances, graduate-level courses can be taken by undergraduate students, although such courses may not be applied to-
ward degree requirements for the major. For additional information, contact the Undergraduate Advising Office, 1531 Franz Hall.

**Cognitive Science Premajor**

Students need to file a petition in the Undergraduate Advising Office to declare the Cognitive Science premajor. They are then identified as Cognitive Science premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major. Questions about the major should be directed to the Undergraduate Advising Office, 1531 Franz Hall.

**Preparation for the Major**

Each of the following required courses must be taken for a letter grade (C or better in each course and a 2.5 overall grade-point average in the preparation courses) before students reach 140 total units: Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A or Physics 10 or 1A or 6A; Mathematics 31A, 31B; Philosophy 7 or 8 or 9; Program in Computing 10A, 10B, and one course from 15 or 20A or 40A; Psychology 10A, 85, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Cognitive Science premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

**Transfer Students**

Transfer applicants to the Cognitive Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course, one general chemistry or general physics course, two calculus/analytical geometry courses, one general physics course, one philosophy course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, one computer programming course in C++, and one other computer programming course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tchr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office. **Required:** (1) Psychology 115 (or M117A, M117B, and M117C), 120A or 120B, and one course from 124A through 124J; (2) one course from 186A through 186D and one course from 121, 186A through 186D, or Computer Science 161; (3) three upper division elective courses (12 units) from Psychology 110, 112A through 116, M117 through M119X, 124A through 124J (if taken for the major, may not be applied as an elective), 130, 133B, 133E, 135, 137G, 142H, 160, 161, 187A, 191CH (if content is approved by the Undergraduate Advising Office and course has not been applied toward the Psychology 195B or 196B requirement), Computer Science 111 through CM186, Ethnomusicology 172A, Linguistics 103 through 185B, Mathematics 110A through 171, Neuroscience 102, Philosophy 124 through 136, Statistics 100A, 100B, 100C, 101B, 101C; and (4) in the junior or senior year, two capstone terms of Psychology 195B or 196B (may be fulfilled by taking any two courses from 195B or 196B or 196B/194C, provided content is approved by the Undergraduate Advising Office).

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course M117 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.

**Psychobiology B.S.**

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 additional advanced courses in psychology and related sciences as well as other types of research and fieldwork experiences. 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, 1531 Franz Hall.

**Psychobiology Premajor**

Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology premajor. They are then identified as Psychobiology premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

**Preparation for the Major**

**Life Sciences Core Curriculum**

**Required:** Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 1, 2, 3, 4, 23L; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Also required are Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Psychobiology premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Each of the preparation for the major courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C or better in the remaining courses) with a 2.0 overall grade-point average. Student must complete all preparation for the major courses by the end of the Summer Quarter of their third year to be eligible to petition to declare the Psychobiology major.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

**Transfer Students**

Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, one introduction to psychology course, one psychological statistics course, and one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admtchr.htm for up-to-date information regarding transfer selection for admission.

**The Major**

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office. **Required:** (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133L, 135, 150, 161, (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112D, M117A, M117B, M117C, M117J, 119A through M119X, 137G, 152, 160, 161, 162, 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, 135, 164, 170, Microbiology, Immunology, and Molecular Genetics 185A, Molecular, Cell, and Developmental...
tial Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Science C144, 146, 147, M148, 166, 173.

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
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. Consult the College of Letters and Science for information on requirements for College Honors.

Honors Program
Psychology, Cognitive Science, and Psychobiology majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Students work for one year with a 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. Consult the Undergraduate Advising Office during Spring Quarter for further information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or highest honors.

Computing Specialization
Majors in Psychology, Psychobiology, and Cognitive Science 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 at least one course from 10C, 15, 20A, 30, 40A, or 60, and (3) completing at least three 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 consult the Undergraduate Advising Office.

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.

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 further information about applying to the minor, contact the ADP academic coordinator by e-mail, ADPMminor@psych.ucla.edu, or see http://www.psych.ucla.edu/undergraduate/services/majors-minors/applied-developmental-psychology-minor. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office, 1531 Franz Hall, (310) 825-2730.

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, 121, 132, Psychology 127C, 129F, 130, 131, 132A, 132B, 133B through 133I, 133J, 134G, 134J, 161, 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.

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. Successful completion of the minor is indicated on the transcript and diploma.

Cognitive Science Minor
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 a primary cluster from four clusters of upper division courses that have been organized to reflect different aspects of cognitive science. Students take three courses within their primary cluster and two additional courses from the remaining clusters (secondary clusters).

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. Students must make an appointment with a counselor in the Undergraduate Advising Office, 1531 Franz Hall, (310) 825-2730, to enter the minor and receive counseling on how to select a primary cluster.

Required Courses (28 units): Psychology 85 and one course from 15, 100B, Computer Science 2, Linguistics 1, 20.

The computer programming experience requirement is satisfied by petition based on coursework (e.g., completion of Program in Computing 10A) or other relevant programming experience.

Students must also select and complete one of the following four primary clusters: (1) biological basis of cognition cluster—three courses from Linguistics C135, Neuroscience 102, Psychology 115, 116, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C), 119B, 119C, 119F, M119L, M119N, 137G, 160, 161; (2) computation and modeling cluster—three courses from Biophysics 108, Computer Science 161, Psychology 186A through 186D; (3) human cognition cluster—Psychology 121 and two courses from 120A, 120B, 124A through 124J, 133B, 133C, 133E; (4) mind and language cluster—three courses from Linguistics 120A, 120B, 120C, 130, 132, C135, 185A, Philosophy 124, 125, 126, C127A, C127B, 129, 170, 172, Psychology 124A.

Students must also fulfill a secondary cluster requirement of two additional courses from one or more of the clusters not selected as the primary cluster.

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.
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 194D, 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, 1531 Franz Hall.

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 designed as a teaching and research facility for the department and is set up to accommodate both cross-sectional and longitudinal investigation of infants, toddlers, their families, and caregivers. In addition, the program provides an opportunity for undergraduate students in developmental psychology and other areas to acquire firsthand experience working with infants and toddlers on an individual basis or in a group setting. The program 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 has two locations (1611 Franz Hall and Fernald Center at 320 Young Drive North) and accommodates children from three months to three years old. Students in the Applied Developmental Psychology minor may complete their fieldwork at one of the IDP locations.

UCLA Psychology Clinic

The UCLA Psychology Clinic in the Department of Psychology is a major training center for students in the clinical psychology Ph.D. 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Psychology offers Master of Arts (M.A.), Master of Science in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Psychology.

Psychology Lower Division Courses

10. Introductory Psychology. (4) Lecture, four hours. General introduction including topics in cognitive, experimental, personality, developmental, social, and clinical psychology; six hours of psychological research and a grade of C or better required of all departmental premajors. P/NP or letter grading.


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.

Upper Division Courses

100A. Psychological Statistics. (4) Lecture, four hours. Requisites: course 10 with a grade of C or better; and one course from Computer Science 2, Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus. Designed for premajors. Basic statistical procedures and their application to research and practice in various areas of psychology. Letter grading.

100B. Research Methods in Psychology. (6) Lecture, two hours; laboratory, four hours. Enforced requisites: courses 10 and 100A, with grades of C or better. Introduction to research methods and critical analysis in psychology. Letter and laboratory topics include experimental and nonexperimental research methods, statistical design and analysis as applied to a broad range of basic and applied research issues. P/NP or letter grading.

101. General Psychology Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 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 atmosphere to learn how mind works. Letter grading.

110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Experimental findings on animals and human conditioning; retention and transfer of training; relation of learning and motivation. Intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for departmental majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as feeding, 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/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisites: courses 10, 100A, 110. Recommended: course 115. Designed for juniors/seniors. Presentation of biological and behavioral ap-
proaches 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 occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112C. Principles of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requisites: courses 110 and 115, or Neuroscience M101A, M101B, and M101C. Limited to junior/seniors. Designed for juniors/seniors. Consideration of principles of 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 occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, recognition and learning, and computational, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/NP or letter grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100A, Life Sciences 2 or 15. Not open to students with credit for course M117A. Designed for juniors/seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/NP or letter grading.


117A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: courses 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychological Science M180A; Neuroscience majors must have grade of C– or better) or Psychological Science 111A. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

117B. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Psychological Science M181, and Psychiatry M181.) Lecture, three hours. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychological Science M180A; Neuroscience majors must have grade of C– or better) or Psychological Science 111A. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.


119A. Neuropsychopharmacology of Emotion and Cognition. (4) Lecture, three hours; discussion, one hour. Requisite: course 115 or M117C. Limited to juniors/seniors. Basic pharmacologic principles, with emphasis on neurotransmitters and neuromodulators, and the role of these substances in defining cognitive processes and behavior. P/NP or letter grading.

119B. Human Neurophysiology. (4) Lecture, three hours; discussion, one hour. Requisites: course 115 and M117C. Designed for juniors/seniors. Exploration of biological basis of human cognitive processing, with emphasis on function of cerebral cortex.

119C. Cognitive Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisite: course 115 of M117C. Understanding complex mental functions depends on interplay of cognitive psychology and behavioral neuroscience. Designed to provide advanced undergraduate students with current perspectives on how complex processes of mind may be understood using neuroscience techniques. P/NP or letter grading.

119D. Behavioral Neuropharmacology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115 of M117C. Quantitative analysis of behavioral responses to drugs emphasizes mechanisms of action, the role of reward, and the potential for abuse. P/NP or letter grading.

119E. Stress and Bodily Disease. (4) Lecture, three hours; discussion, one hour. Requisite: course 115. Designed for seniors. Examination of psychological, neurochemical, and neurobiological mechanisms underlying stress-related conditions. P/NP or letter grading.

119F. Neural Basis of Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: course 115. Designed for seniors. Psychological processes as they pertain to development of normal behaviors and disease states. Consideration of stress-related topics, including behavioral and pharmacological variables in stress and stress management.

119G. Brain, Mind, and Motion Pictures. (4) Lecture, 90 minutes; screenings/discussion, two and one half hours. Requisite: course 115. Limited to juniors/seniors. Exploration of cognitive neuroscience of film from three perspectives: how advanced brain reasoning is represented in film; how modern cognitive neuroscience explains the phenomena of watching movies, and neurophysiology of doing so. P/NP or letter grading.

119H. Integrating Brain and Brain. (4) Seminar, three hours. Requisites: course 115 or M117C. Focuses on the role of social interactions in the development of both the brain and the mind. Topics include social cognition, perception, and communication.


119J. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Designed for seniors. Introduction to classical and current literature on mechanisms of learning and memory from individual brain systems to circuits. P/NP or letter grading.

119N. Visual System. (4) (Same as Neuroscience M119N) Lecture, three hours. Requisite: course 115 or Neuroscience M101A or Psychological Science 111A. Ability to image and process visual information in the nervous system. P/NP or letter grading.

119O. Psychology of Aging. (4) (Same as Gerontology M119O) Lecture, three hours. Requisite: course 115. Designed for seniors. Aging refers to developmental changes occurring at ends of life. Some alterations that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.


119T. Neural Basis of Emotion and Motivation. (4) Lecture, three hours. Requisite: course 115 or M117C. Limited to seniors. Neurobiological basis of primary emotions, emotional regulation, and stress. Im-
pact of emotion, stress, and arousal on motivated behaviors and cognitive processes. P/NP or letter grading.

119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Gerontology 119X) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminal phase, death, have been 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.

120A. Cognitive Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Survey of cognitive psychology; how people acquire, represent, transform, and use information; verbal and nonverbal information. Perception, attention, imagery, memory, representation of knowledge, language, action, decision making, thinking. P/NP or letter grading.

120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Acquisition of information about physical world through basic sensory mechanisms and perceptual processes. Perception of objects, events, motion, and events. Con- nections between information, computations, and biological mechanisms in vision, audition, and other systems.

121. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for Psychology and Cognitive Science majors. Laboratory experience with methods and phenomena from research on human perception, memory, and cognition. P/NP or letter grading.

124A. Advanced Topics in Sensation and Perception. (4) Lecture, three hours. Requisites: courses 10, 100A, 120A or 120B. Exploration of issues in visual information processing; contemporary research and theory about visual and auditory perception. Topics include physiological mechanisms, psychophysical studies and models, and computational approaches. P/NP or letter grading.

124B. Visual Information Processing. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A, 120A or 120B. Exploration of issues in visual information processing; contemporary research and theory about visual and auditory perception. Topics include physiological mechanisms, psychophysical studies and models, and computational approaches. P/NP or letter grading.

124C. Human Memory. (4) Lecture, two hours; discussion, one hour. Requisite: course 120A or 120B. Designed for psychology majors. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion topics include practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.

124D. Principles of Human Performance. (4) Designed for Psychology majors. Investigation into laboratory-based methods and principles of human performance. Major topics include research methods for human performance, central control of movements, anticipation and timing, automaticity, sensory involvement in action such as vision and kinesthesis, role of reflexes, speed-accuracy trade-offs, and individual differences and abilities. Principles discussed should have relevance for numerous real-world situations in which complex perceptual-motor skills are required, such as in industrial settings, musical performances, vehicle control, and sport.

124E. Language and Cognition. (4) Lecture, three hours. Requisites: courses 10, and 120A or 120B. Designed for junior/senior. Recent theories of language and cognition; nature of categories, feedback, and error detection in language and cognition; modularity; ambiguity; knowledge acquisition; processes and representations underlying perception, production, attention, and awareness in language and cognition. P/NP or letter grading.

124F. Thinking. (4) Lecture, three hours. Requisite: course 120A or 120B. Analysis of experimental studies of human categorization, reasonings, decision making, and cognitive processes and representations underlying perception, production, attention, and awareness in language and cognition. P/NP or letter grading.

124G. Cognitive Aging. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 120A or 120B. Designed for juniors/seniors. Recent facts and theories on relations between normal aging and cognition, including perception, language comprehension, learning, memory, thinking, inhibitory processes, and their roles in action, general slowing phenomenon, and related neuropsychological issues. P/NP or letter grading.

124H. Cognitive Neuroscience of Memory. (4) Lecture, three hours. Requisites: courses 85 or 120A, and 115. Designed for juniors/seniors. Introduction to neural basis of learning and memory. Topics include cellular and molecular mechanisms of learning and memory, human amnesia and hippocampus, working memory and prefrontal cortex, procedural learning, emotional memory systems, and memory consolidation. P/NP or letter grading.

124J. Perception, Learning, and Learning Technology. (4) Seminar, three hours. Requisite: course 120A or 120B. Designed for upperclassmen. Contemporary research and theory about visual perception and cognition as they relate to learning and potential for learning technology. Basic knowledge about visual information processing, perceptual learning, knowledge representation, pattern recognition, classification, and expertise, as well as research on learning, technology, and applications of perceptual and cognitive concepts in specific domains, with special focus on teaching and learning in mathematics. P/NP or letter grading.

125A. Developmental Psychopathology. (4) Seminar, three hours; fieldwork, seven hours. Research approaches utilized by psychologists in Fernald Research Intern Program to conduct research in developmental psychopathology in context of direct experience. Interns provided with necessary background to undertake various research activities during Winter and Spring Quarters. P/NP grading.

125B. Research Methods in Developmental Psychopathology. (4) Laboratory, three hours; fieldwork, seven hours. Limited to departmental majors. Research approaches utilized by psychologists to conduct research in developmental psychopathology. P/NP grading.

125C. Advanced Research Methods in Developmental Psychopathology. (4) Laboratory, three hours; fieldwork, seven hours. Advanced research approaches utilized by psychologists to conduct research in developmental psychopathology. Letter grading.

126. Clinical Psychology Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for departmental majors. Methods, designs, and issues in conduct of clinical psychology research. Students develop and conduct research. Content varies by instructor, with concentration on one of the following: schizophrenia, mood disorders, anxiety disorders, childhood disorders, psychophysiological methods, observational methods with couples and families. Letter grading.

127A. Abnormal Psychology. (4) Lecture, three hours. Requisite: course 10. Not open for credit to students with credit for course 127A or 127C. Study of biologic and psychologic aspects of abnormal behavior, including neuroses, psychoses, character disorders, psychosomatic reactions, and other abnormal personality characteristics. P/NP or letter grading.

127B. Abnormal Psychology: Biological Bases. (4) Lecture, three hours. Requisite: course 10. Not open for credit to students with credit for course 127A or 127C. Study of biologic and psychologic aspects of abnormal behavior, with particular focus on neuroscience, genetics, physiology, and anatomy of clinical disorders such as schizophrenia, bipolar disorder, major depression, and substance disorders. P/NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours. Requisite: course 10. Not open for credit to students with credit for course 127A or 127B. Study of development from infancy through adolescence and early adulthood. Clinical disorders include behavioral disorders, learning problems, depression/anxiety, and disorders of development such as autism and mental retardation. P/NP or letter grading.

129A. Personality Measurement. (4) Lecture, three hours. Requisites: courses 10, 100A, Rationale, meaning, and content of studies dealing with problems of describing persons in terms of a limited set of dimensions. Detailed consideration of research literature dealing with a few representative personality dimensions. P/NP or letter grading.

129B. Introduction to Psychoanalysis. (4) Lecture, three hours. Requisites: courses 10, 100A, Development of Freud’s ideas from 1895 to 1926, with emphasis on how his theory evolved from a drive-based reinforcement model to the structural theory in which unconscious fantasy plays a crucial role. Coverage of developments beyond Freud, especially work of the British school under leadership of Klein, Winnicot, and others. P/NP or letter grading.

129C. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior in general, and culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.

129D. Personality. (4) Lecture, three hours. Requisite: course 10. Survey of major topics in field of personality, including personality theory, personality assessment, and physiological, behavioral, and cultural role of perception, learning, and motivation in personality.


129F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: course 127A or 127B or 127C. Survey of child and adolescent psychopathology and psychological assessment, development and intervention approaches. Coverage includes such conditions as anxiety disorders, depression, conduct and attention problems, eating disorders, and autism, with information on prevalence, etiology, signs, common treatments and their effects. P/NP or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, Designed for juniors/seniors. Elaboration of developmental aspects of physical, mental, social, and emotional growth from birth to adolescence. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A, 100B, and 130 or one course from 133A through 133L. Designed for Psychology and Cognitive Science majors. Courses of scientific writing; ethics of research, especially with minors; assessment and intervention approaches; data analysis; and presentation options. Letter grading.

132A. Learning Problems, Schooling Problems: Policy and Practice. (4) Lecture, three hours. Designed for juniors/seniors. Exploration of different orientations to persons with learning problems, emphasis on assessment and intervention approaches and psychosocial impact of such approaches. Topics include interaction of learner and environment, sociopolitical nature of classroom, psychological impact of schooling, grades, and evaluations, process versus goal focus in learning. P/NP or letter grading.
132B. Mental Health in Schools: Policy and Practice. (4) Seminar, three hours. Limited to juniors/seniors. Policies, models, and mechanisms for mental health in schools. Introduction to broader perspective of normal development and psychosocial problems to explore range of theoretical, practical, and ethical issues. P/NP or letter grading.

133A. Development. (4) Lecture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children three to eight years old. Topics include physical, cognitive, social, and emotional development of children, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.


134D. Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134B. Designed for Applied Developmental Psychology minors. Fieldwork in advanced applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.

134F. Infant Care and Development. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133 through 133I, one statistics course. Dependent care practices. Child care developmentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Exploration of role of early childhood educators within context of diverse racial, ethnic, economic, and cultural background and impact of these factors on children's development. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Development and change of attitudes and opinions. Physical and psychological bases of social stratification, and mass phenomena. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Introduction to research designs and methods used to test social psychological hypothesis, including experiments, observation, content analysis, and experiments and impact of these methods on children's development. 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 for study of social attitudes or behavior, including fieldwork with survey research, naturalistic observation, or questionnaires. P/NP or letter grading.

136F. Survey Research in Psychology. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particular emphasis on sampling, operational definitions, and research design. Actual experience in systematic survey research such as that done by media polling agencies, market research companies, and academic survey research centers. Topics include survey design, sampling, interviewing techniques, response rates, questionnaire design, data coding, and analysis. Training in telephone interviewing techniques in laboratories. P/NP or letter grading.

137A. Survey Research. (4) Lecture, three hours. Designed for junior/senior Psychology majors. Introduction to field of sport psychology. Coverage of research and applied aspects of a range of topics, including behavior with sport participants as well as world-class performers.

137B. Nonverbal Communication and Body Language. (4) (Same as Communication Studies 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, gestures, and nonverbal cues in 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. Open for credit to students with credit for former course M176. Introduction to how social scientists think about, study, and treat intimate relationships, with emphasis on understanding how research, change of context, and change of perspective create the altercation, relationship formation, conflict resolution, social support, 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. Requisites: course 10 or Gender Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include antecedents of career choice, job findings, leadership, performance evaluation, discrimination and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

137F. Introduction to Sport Psychology. (4) Lecture, three hours. Designed for juniors/seniors. Survey of topics in sport psychology, including leadership and team dynamics, moral development and aggression, personality, motivation, fan behavior, and performance enhancement. Consideration of youth sport through world-class athletics. P/NP or letter grading.


137H. Interpersonal Influence and Social Power. (4) Lecture, three hours. Requisite: course 135. Theory and research focusing on how people influence one another to resist such influences, and on the bases of such influence, and on the bases of such influence, and on the bases of such influence on social power. Motivations and effects of influence for the powerholder and target of influence. Applications to such problems and issues as power and leadership in organizations, interpersonal influence and health, power relationships in the family, interpersonal influence in everyday life, social power of political figures.

M138. Electoral Politics: Political Psychology. (4) (Same as Political Science M141A.) Lecture, three or four hours; discussion, one hour (as 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.

M139. Perspectives on Autism and Neurodiversity. (4) (Same as Disability Studies M139.) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as a medical condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material sourced from various 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 represent their own experiences of autism and discussion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today.(4) 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, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

142H. Advanced Statistical Methods in Psychology (Honors). (Same as Statistics 111A and 111B.) Lecture, three hours; discussion, two hours. Corequisites: courses 100A, 100B. Survey of statistical techniques commonly used in psychology, education, and behavioral and social sciences: correlational techniques, analysis variance, and multiple regression. P/NP or letter grading.


M180. Contemporary Problems in Developmental Disabilities. (4) (Same as Psychiatry M180.) Seminar, three hours. Corequisite: course M181A. Limited to Developmental Disabilities Program students. Examination of broad spectrum of issues related to mental retardation, intelligence and IQ, genetics, neurobiological, and other developmental disabilities. P/NP or letter grading.


184A-184B. Psychology Research Opportunity Program Seminars. (2-2) Seminar, 90 minutes. Designed to bring together Psychology Research Opportunity Program (PROPS) students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

185. Research Practicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to juniors/seniors. Practical applications of psychology coursework through research guidance and 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 Psychology 10B Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, learning, reasoning, and problem solving). Types of models include neural networks and symbolic models. Lectures and discussions interwoven with computer simulations written in Matlab. P/NP or letter grading.

186B. Cognitive Science Laboratory: Neural Networks. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Mathematics 31A, 31B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Laboratory experience in neural network modeling of perception and cognition. Specific topics include essential neuropsychology, basic architectures, learning, and programming techniques. Principles illustrated and discussed in context
198C. Cognitive Science Laboratory: Psychophysiological Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior or senior departmental majors. Laboratory work. Projects, with faculty supervision, on physiological instrumentation and behavior and perception. Laboratory and lecture work on such perceptual measurement procedures (psychophysiological methods) and cognitive processing and decision models on which these procedures are based, with particular emphasis upon signal detection theory and its applications. Letter grading.

186D. 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.

187A. Psychology and Law. (4) Lecture, two hours: discussion, two hours. Designed for juniors/seniors. Study of new topics on legal psychology, including suspect identification, witness reports, and police procedures. Outside speakers utilized in presentation of these materials. Students participate in presentations and/or discussions.

187B. Advanced Psychology and Law. (4) Lecture, three hours; discussion, one hour. Requisite: course 187A. Designed for juniors/seniors. Study of additional topics on legal psychology, including gang violence, theories of crime, corrections, repeat offenders, community policing, and interrogation. Outside speakers utilized in presentation of these materials. P/NP or letter grading.

187C. Sex and Law. (4) Lecture, four hours. Limited to juniors/seniors. Examination of Constitutional foundation for sexual rights in America, with focus on free- dom and privacy rights to privacy and Ninth Amendment rights reserved by the people. P/NP or letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Departmentally sponsored experimental or temporary seminars on selected topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmentally sponsored experimental or temporary courses in psychological interest, such as those taught by visiting faculty members. Consent Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

190. Research Colloquium 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. Limited to juniors/seniors. 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 prerequisite: course 191AH. Designed for juniors/seniors. Comprehensive seminar limited to graduate students. 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 10 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. Designed for juniors/seniors. 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, applications, and current literature through group discussion, presentation, and papers. May be repeated for credit. P/NP or letter 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 of or research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field of or research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194D. Research Group Seminars: Practicum. (1) Seminar, one hour. Corequisite: course 185B. Corequisite: course 196B (3-unit option). Directed reading, discussion, and development of innovative programs under guidance of psychology 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.

199A. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be repeated for credit. 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 paper required. Only one 4-unit 199 course 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, motivation, and social behavior. May be applied toward degree. P/NP or letter grading.
mental data on and models of construction of spatial, temporal, and numerical representations. Explicitly symbolic models compared and contrasted with associational representations for neurobiology of learning and memory. S/U or letter grading.

201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Recent behavioral research and related behavior studies a minimum of four times (entire first year and winter of second year). Presentation of papers of current interest in learning, behavior, or applied behavioral analyses by evaluation of research and significance and methodology in detail. May be repeated for credit. S/U grading.

202. Research in Learning and Behavior. (2) Forum in which graduate students discuss the literature and methodological, analytical, and interpretational issues related to specific topics of research in learning and behavior. S/U grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis, using behavioral systems approach, of basic motivated behavior such as feeding, drinking, foraging, and reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, thinking about a problem. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grading.

204B. Theories of Learning. (4) Discussion, three hours. Required for course 205A. Critical discussion and in-depth analysis of major current theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcoholism, aggression, management, mental retardation, behavioral medicine, autism/schizophrenia, etc. 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 in both animal and somatosensory modalities. Review of mechanisms of cortical plasticity, including basic features of long-term synaptic plasticity and computational models of cortical processing. Letter grading.

205B. Human Neurophysiology. (2) Lecture, three hours. Designed for graduate students. Examination of higher cognitive processes in terms of neural mechanisms that underlie them. Topics include cortical modularity and organization, coordinated sensory representation, language, regional functional specialization, attention, and regulation of cortical function by extracortical systems. Letter grading.

205C. Neurotransmitters in Human Disorders of Motor and Cerebral Function. (2) Lecture, three hours. Designed for graduate students. Detailed analysis of molecules involved in interneuronal communication processes (i.e., neurotransmitters, neuropeptides, “neuromodulators,” “neurotrophic” agents). Discussion of their roles in normal brain physiology, followed by detailed analyses of their perturbations in various disease states. Particular emphasis on current and past major advances in behavior in diseases, Parkinsonism, Huntington’s disease, and Down’s syndrome dementia. Letter grading.

205D. Clinical Psychopharmacology. (2) Lecture, three hours. Designed for graduate students. General principles of brain neurotransmitters, including synthesis, cell bodies and pathways, and receptor subtypes. General principles of drug administration and pharmacokinetics. Major classes of psychoactive drugs, animal models, and “atypical” compounds. Letter grading.


205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of cells. Cells biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible. Letter grading.

205G. Behavior Genetics. (2) Lecture, three hours. Designed for graduate students. In-depth analysis of field of behavior genetics, including methods for determining genetic and environmental influences and for locating and characterizing genes impacting these traits, as well as current knowledge of genetic contributions to cognition and behavior and disorders thereof. Letter grading.

205K. Vision and Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual system, focusing on retina, visual cortex, and overall performance. Letter grading.

205L. Cognitive Neuroscience. (2) Lecture, three hours. Designed for graduate students. Overview of neural basis of higher cognitive functions, integrating anatomical, physiological, and behavioral approaches and incorporating clinical and experimental data. Systems covered include attention, perception, memory, language, and hemispheric specialization. Letter grading.

205M. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students. Examination of neural substrates of high-level visual processing. Topics includeagnosias and characteristics of electrophysiological responses recorded in primates temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.


212. Evaluation of Research Literature in Physiological Psychology. (1) Discussion, 90 minutes. Papers of current interest presented by members of seminar and their significance and methodology discussed and criticized in depth. May be repeated for credit. S/U 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 handicapped, 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.

215C. 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, prevalence of psychological disorder in populations with chronic illness, evidence-based psychotherapeutic interventions for chronic illness, and terminal illness and end-of-life care. Readings and discussion across several major chronic diseases (e.g., cardiovascular diseases, cancer, AIDS, rheumatoid 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 to graduate students. Examination of theoretical and empirical advances in psychology of women’s health. Sociocultural 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 changes with age, mental and physical well-being in older 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 social, emotional, 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 issues in biological systems, and problems of individuals, and presentation of multidimensional explanatory models and interventions for several social problems. Special attention to ethnic and socioeconomic health disparities and to methodological issues faced in conducting research on these issues. Letter grading.

216G. Biology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Examines physiological and biological etiology 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 psychological research. 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. Students prepare two written reports in health psychology area of study and may include emerging or related issues that are found in research in health psychology. S/U or letter grading.

220A. Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology. S/U or letter grading.


220C. Advanced Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to theory and research in social psychology. Theories and their applications are not limited to psychology majors. Service course for graduate students in education, sociology, political science, management, public health, etc.


222A. Interpersonal Relations. (4) Discussion, three hours. Requisite: course 220A. Critical review of theory and research on interpersonal relations, with emphasis on friendship, dating, and marriage.

222B. Interpersonal Influence and Social Power. (4) Seminar, three hours. Preparation: advanced social psychology course (psychological or sociological). Review of research and theory on interpersonal influence and power and the application of these ideas to various power relationships such as supervisor/subordinate, healthcare professional/patient, doctor/nurse, parent/child, wife/husband, teacher/student, political figure/Politics. S/U or letter grading.

222C. Psychology of Intergroup Relations. (4) Lecture, three hours. Designed for graduate students. In-depth and comprehensive exposure to major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to work within psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

222D. Social Stigma. (4) Seminar, three hours. Introduction to classic and contemporary theory and research on social psychology of stigma, primarily from perspective of stigmatized. Letter grading.

222E. Individuals and Groups in Organizations. (4) (Same as Management M229A.) 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 antecedents and outcomes related to individual and interpersonal processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational content, structure, and culture. S/U or letter grading.

222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for success in graduate school and academia more broadly, including transition to graduate school, writing, manuscript reviewing, grant writing, teaching and mentoring, academic job market, job negotiating, and giving job talks. Involves combination of guest speakers, lectures, discussions, readings, written exercises, and practical experience. S/U or letter grading.


226A-226B. Current Literature in Social Psychology. (2-2-2) Discussion, 90 minutes. Course 226A is limited to psychology graduate students. Lectures, discussions, and may be open to nonsocial psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and criticized in depth. S/U grading.

226A. Proseminar: Political Psychology. (4) (Same as History M226A and Political Science M261A) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and international relations. S/U or letter grading.

226B. Seminar: Political Psychology. (4) (Same as Political Science M261D) Discussion, three hours. Requisite: course 220A or Political Science M261A. Examination of political behavior, political socialization, and mass political movements, and public opinion. S/U or letter grading.

226C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E) Discussion, three hours. S/U or letter grading.

229. Social Cognition. (4) Lecture, one hour; discussion, two hours. Social cognition is concerned with how people organize and interpret social information in their environment. Seminar provides broad background in the field and also gives depth and focus on particular research topics in the field. Weekly papers, as well as a lengthy final paper, required.

231. Psychology of Gender. (4) Seminar, three hours. Preparation: one prior course on gender/women’s studies. Critical evaluation of current research and theory concerning psychology of gender, drawing on work from various areas of psychology to understand sources of gender differentiation and its consequences for social interaction. S/U or letter grading.

232. Human Sexuality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. Contents include theory construction, scale development, and an environmental and endocrinological implications, radioimmunoassay (measuring hormones in blood sample), ethical issues, methodological and statistical considerations, measurement of sexual arousal, fantasy, and sexual dysfunction therapy. Discussion-oriented, with emphasis on operationalizing predictions concerning human sexual functioning.

233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of work in environmental psychology designed to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environmental stimuli linking specific stimulus qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as these relate to emotional response dimensions used to explain individual differences in response to same environment over time or between individual differences to same situation. Review of literature relating information rate from environments to arousal and activity. S/U or letter grading.

234. Social Psychological Aspects of Competitive Youth Sport. (4) Review of research concerning social psychological aspects of competitive sport for children. Sport is presented as a major achievement domain to which youth belongs which includes sources and consequences of competitive stress, significant adult influences and interactions, predictors of performance, determinants of participation and dropping out, and socialization through sport.


M236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M295A, Sociology M270.) Lecture, three hours. Limited to graduate students. Diversity approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theories of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.


M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychiatry M238.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M239. Personality, Motivation, and Attribution. (4) Survey of education for three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensity of behavior. Perceived causes of outcomes in achievement and affiliative domains. S/U or letter grading.

240A. Language and Cognitive Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in development of language and cognition. S/U or letter grading.

240B. Social and Emotional Development. (4) Lecture, three hours. Preparation: one undergraduate development psychology course in social development or related topic. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in social and emotional development. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Limited to graduate students. Introduction to emerging field of developmental psychobiology, including cognitive and affective neuroscience. Consideration of major topics and concepts, key theories, latest methods, and research findings. S/U or letter grading.

241. Current Developments in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate developmental psychology students. Presentation of papers on current advances in developmental psychology and closely related areas by experts in the field. Emphasis on approaches to a problem, making it suitable for outside presentations by graduate students. S/U grading.

242A-M242G. Seminars: Developmental Psychobiology. (4 each) Each course may be taken independently and may be repeated for credit. S/U grading.

242A. Perceptual Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.
traditional topics in correlation and regression analyses, including model comparison strategies, evaluation of model assumptions, testing mediation and moderation hypotheses, working with categorical variables, general linear model, and logistic regression. Letter grading.

251A-251B-251C. Research Methods. (4-4-4) Tutorial, lecture, seminar. Designed for graduate psychology students. Students design and conduct original research projects under supervision of instructor in charge. It is anticipated that many students will complete their projects in two terms (normally three terms allowed). S/U (251A, 251B) and S/U or letter (251C) grading.


252B. Discrete Multivariate Analysis. (4) Lecture. Three hours. Requisites: courses 250A, 250B. Introduction to analysis of categorical data. Topics include categorical univariate and multivariate distributions, independence and conditional independence, log-linear models, multivariate categorical designs, and ordered categorical variables. Applications from various areas of psychology.


254A. Computing Methods for Psychology. (4) Lecture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowledge assumed; no prior knowledge of MATLAB required. Designed to teach basic computer methods relevant to work in experimental psychology and cognitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/U or letter grading.

255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measurement of abstract constructs using both classical and modern empirical techniques. Hands-on approach allows students to develop practical experience. In addition to discussions on licensing reliability and validity, topics include exposure to analytic approaches, including item response theory, multiple regression, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.


256A. Introduction to Multilevel Modeling. (4) Lecture, four hours. Requisite: course 250C. Basics of random coefficient models for analysis of data from (1) individuals nested within groups and (2) repeated observations of individuals (longitudinal growth models). Selected advanced topics, including three-level models, cross-classification, dyadic data, categorical outcomes, and longitudinal intervention. S/U or letter grading.

256B. Advanced Multilevel Modeling. (4) Lecture, four hours. Requisite: course 256A. Advanced topics in analysis of clustered and longitudinal data, including nonlinear models, multilevel mediation, non-archival data structures, meta-analysis, modeling variance, and other topics of student interest. Readings in both quantitative and substantive multilevel modeling literature. S/U or letter grading.

257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M220D and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of variables 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-means factor analytic models. Structural equation models, including path and simultaneous equation models. Path analysis with latent variables, testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.

258. Special Problems in Psychological Statistics. (4) Lecture. Three hours. Topics vary with interests of instructor. Each course may be taken independently and may be repeated for credit. 258A. Perception; 258B. Human Learning and Memory; 258C. Judgment and Decision Processes; 258D. Language and Cognition; 258E. Human Performance.

258F. Human-Computer Interaction. (4) Lecture, three hours. Limited to graduate students. Concepts, theories, and pragmatics of human-computer interaction. Topics include optimizing Web and product interface to enhance quality of user experience, with focus on applying principles of cognition, perception, learning, and memory to create human-computer interactions that create consonant with user needs and capabilities. Course projects include creating and user testing actual Web-based application. S/U or letter grading.
269. Seminar: Cognitive Psychology. (4) Seminar, three hours. Discussion of problems in cognitive psychology that encompass more than a single subfield of the area. May be repeated for credit.


272A. Behavior Modification with Adults. (4) Seminar, three hours. Designed for graduate clinical psychology students. Consideration of the theoretical, practical, and ethical aspects of behavior modification. Emphasis on the use of systematic desensitization and token economy. S/U or letter grading.

272G. Marital Therapies. (4) Lecture, two hours. Discussion of problems in cognitive psychology. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systems theories, with relevant research findings. May be taken independently for credit.

272HA-272HB-272HC. Clinical and Ethical Issues in Clinical Psychology. (2-2-2) Lecture, one hour; discussion, one hour. Designed for graduate clinical psychology students. Year-long course sequence covering basic to advanced clinical psychological issues and their implications for clinical psychologists in their work, including legal and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation, research, medication, working with diverse client populations, etc. S/U or letter grading.

2724. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) Same as Health Policy and Management M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

275. Conceptual and Methodological Issues in Community Intervention. (4) Lecture, three hours. Limited to graduate students. Conceptualization of social problems and possible interventions; discussion of multidimensional explanatory models for select illustrative problems; discussion and critical evaluation of both individual-focused and community-focused psychological, political, and policy interventions. S/U or letter grading.


277. Advanced Clinical Assessment. (4) Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, clinical interpretation, case studies, psychological test battery, psychopharmacology, and application of assessment to problems in psychotherapy. S/U or letter grading.

278. Functional Neuroimaging: Techniques and Applications. (3) Same as Bioengineering M284, Biomedical Physics M285, Neuroscience M285, and Psychiatry M285.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electron-beam angiography. Categories of analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging protocols, and the interpretation of results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.


280. Affective Disorders. (2 or 4) (Same as Psychiatry M234.) Seminar, two hours. General topics related to primary affective disorders (depression, manic depressive illness), including diagnosis, pharmacology, epidemiology, psychopathology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper. S/U or letter grading.

281. Psychopathology. (4) Lecture, three hours. Survey of dominant psychological attributes of particular forms of psychopathology, including analysis of status of various theories concerned with etiology and measurement, biological, personality, neurotic, schizophrenic spectrum, and affective disturbances. S/U or letter grading.


M288A-M288B. Principles of Neuroimaging I, II. (4-4) (Same as Neuroscience M284A-M284B and Psychiatry M284A-M284B.) Lecture, four and one half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisites: Psychology 239. Course M288A is requisite to M288B. Instrumentation and methods of functional brain imaging techniques, with emphasis on quantitative understanding and data interpretation and features common to modalities. X-ray computed tomography, magnetic resonance imaging, positron-emission tomography, magnetic resonance spectroscopy, transcranial magneto stimulation, near infrared imaging. Letter grading.

289A-289B-289C. Current Issues in Clinical Psychology. (1-1-1) Discussion, two hours. Designed for first-year graduate clinical psychology students. Presentation of research and applied topics relevant to clinical psychology. In Progress (289A, 289B, and 289C) grading.

290. History and Systems of Psychology. (2) Seminar, two hours. Requisites: courses 251A, 251B, 251C. Rich and detailed examination of history of full scope of psychology as scientific discipline, with particular emphasis on cognitive, social, developmental, and biological aspects of discipline. Broad treatment of how various emphases within broader field have evolved. S/U or letter grading.

291. Principles of Behavioral Pharmacology. (4) Lecture, four hours. Discussion of uses of drugs, drugs and behavior relationships. Discussion of nature and source of drugs, general aspects of pharmacology, neurotransmitters and basic neuropharmacology, principles of drug action and categories of psychopharmacological agents, and pharmacological approaches to study of drug addiction, schizophrenia, and other behavioral processes, both normal and pathological. S/U or letter grading.

292. Biobehavioral Mechanisms of Stress and Disease. (4) Lecture, three hours. Designed for graduate psychology students. Behavior/physiology interactions of some major bodily systems: nervous, cardiovascular, gastrointestinal, and endocrine systems. Usual and altered states of these systems (e.g., stress) as these can promote permanent tissue injury, disease, or improved bodily function, health enhancement. S/U or letter grading.

292B. Psychosocial Contributors to Ethnic Disparities in Health. (4) Seminar, three hours. Limited to graduate students. Role of social class, gender, and other psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to variety of specific disorders, with focus on explanatory models and approaches to intervention.


M294. Seminar: Neural and Behavioral Endocrinology. (4) Same as Neuroscience M284 and Physiology M285.) Seminar, one hour; discussion, one hour. Topics include neuroendocrine and

295. Psychology of Diversity. (4 Seminar, three hours. Introduction to research and theory 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.

296A. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned readings included. S/U grading.

C296B. Research Group Seminars: Practicum. (1 Seminar, one hour. Designed for graduate students who are part of a study that meets under the direction of graduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Concurrently scheduled with course C194D. S/U grading.

297. Issues in Social Development of Minority Child. (4 Seminar, three hours. Designed for graduate students. Critical evaluation and integration of existing research on social psychological development of minority child. Emphasis on socialization of cognitive and personality style, with goal of empirically clarifying issues raised in this area of developmental study. S/U or letter grading.

298. Special Problems in Psychology. (4) Discussion, three hours. Content depends on interests of particular instructor. May be repeated for credit. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Fieldwork and internship under administrative and supervisory direction of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

401. Fieldwork in Clinical Psychology. (1 to 12 Fieldwork, to be arranged. Requisites: courses 271A, 271B, 271C. Students on practicum assignments are required to register for this course each term (except by consent of clinical program committee). S/U or letter grading.

402. Clinical Research Practicum. (2) Fieldwork, two hours. Faculty and graduate students who share interests discuss current literature, new ideas, methodological issues, and preliminary findings. Meetings include regular 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. S/U or 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.

420A-420B. Health Psychology Practicum. (2-2) Fieldwork, to be arranged. Designed for graduate students. Determination of what areas of health, illness, treatment, and delivery of treatment can be elucidated by understanding of psychological concepts and research; psychological perspective on these problems; how psychological perspective might be enlarged and extended in medical area. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in field. S/U or letter grading.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Forum for faculty and graduate students pursuing research on a common topic to share research ideas, make research presentations, and obtain feedback. Projects include research designs, procedures, and results, to foster collaborative investigations in common research areas. S/U grading.

423. Social Survey Research Practicum. (4) Practicum, two hours; additional hours to be arranged. Methods of survey sampling, conducting and management of computer-assisted telephone interview surveys. S/U or letter grading.

425. Health Psychology Lecture Series. (2) Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles area present their research, programs, and/or clinical work as part of training program in health psychology. May be repeated for credit. S/U grading.


454. Internship in Industrial Psychology. (2 to 4) Fieldwork, to be arranged. S/U or letter grading.

495. Presentation of Psychological Materials. (4) Seminar, to be arranged. Supervised practicum in undergraduate teaching. Students serve as discussion section leaders in selected undergraduate courses. S/U grading.

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 Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. One 596 course is required each succeeding year of graduate study, (Terminal M.A. candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (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.

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

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Anastasia Loukaitou-Sideris, Ph.D., Chair

Faculty Committee
Leonardo E. Estrada, Ph.D. (Chicana and Chicano Studies, Urban Planning)
Alfreda P. Iglehart, Ph.D. (Social Welfare)
Mark A.R. Kleiman, Ph.D. (Public Policy)
Jorja J. Leap, Ph.D. (Social Welfare)
Anastasia Loukaitou-Sideris, Ph.D. (Urban Planning)
Aaron L. Panofsky, Ph.D. (Institute for Society and Genetics, Public Policy)

Scope and Objectives
The Public Affairs minor teaches undergraduate students the skills of policy analysis and exposes them to many of the local, state, national, and international issues facing today’s policymakers and opinion leaders. Courses explore the public (governmental) and nonprofit sectors and provide a theoretical, conceptual, and practical foundation for students. Particular attention is given to the vexing issues facing urban areas and urban planners, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.

Undergraduate Study
Public Affairs Minor
To enter the Public Affairs minor, students must have an overall grade-point average of 2.0 or better and complete Public Policy 10A with a grade of B or better. For further information, contact the program director/counselor at (310) 206-8966.

Required Core Courses (8 units): Public Policy 10A and one course from 10B, C101, 102, C119, 125, Honors Collegium 82, Social Welfare 191, Urban Planning 120, 121 or, by petition only, another applied policy course. Highly recommended: one statistics and one microeconomics course.

Required Upper Division Courses (20 units): (1) Three courses from one of the following clusters: (a) gender and multiculturalism cluster—Public Policy M120, Social Welfare 101, M104C, Urban Planning 141, M175; (b) labor and work cluster—Public Policy 141, C144, 145, 148; (c) policy studies cluster—three upper division public policy lecture/seminar courses (191A may be repeated for credit with topic change); (d) social welfare cluster—three upper division social welfare lecture courses (fieldwork and internship courses such as Social Welfare 130A and 130B may not be ap-
plied); (e) urban policy and planning cluster—three upper division urban planning lecture courses (129 may be repeated for credit with topic change); or (f) by petition, a cluster of upper division policy courses proposed by the student; (2) one elective course offered by the Luskin School of Public Affairs not used to satisfy the core or cluster requirement; (3) capstone project to be completed during the senior year that may be satisfied by one of the following: (a) Public Policy 187, (b) Political Science 191DC or 194DC, (c) Civic Engagement 105SL, or (d) by petition another upper division applied policy course that requires a substantial term paper.

Fieldwork and internship courses, such as Social Welfare 130A, 130B, and Urban Planning M165, may not be applied toward the minor. No more than three of the cluster and elective courses may be from a single department, and no more than two may be from outside the school.

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.

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**PUBLIC HEALTH**

**Interdisciplinary Minor**

Jonathan and Karin Fielding School of Public Health

UCLA

A1-269 Center for the Health Sciences

Los Angeles, CA 90095-1772

(310) 825-5524

fax: (310) 825-5617

http://ph.ucla.edu/undergraduate-public-health-minor

Pamina M. Gorbach, M.H.S., Ph.D., Chair

Faculty Committee

Pamina M. Gorbach, M.H.S., Ph.D. (Epidemiology)

Christina M. Ramirez Kitchen, Ph.D. (Biostatistics)

Ninez A. Ponce, Ph.D. (Health Policy and Management)

Kimberly I. Shost, Ph.D (Community Health Sciences)

Yifang Zhu, Ph.D. (Environmental Health Sciences, Institute of the Environment and Sustainability)

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**PUBLIC HEALTH SCHOOLWIDE PROGRAMS**

Jonathan and Karin Fielding School of Public Health

UCLA

A1-269 Center for the Health Sciences

Los Angeles, CA 90095-1772

(310) 825-5524

fax: (310) 825-5617

http://ph.ucla.edu

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**Scope and Objectives**

The Public Health minor is designed for students who wish to learn more about core public health functions, including the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, the formulation of public policies designed to solve identified local and national health problems and priorities, the assurance that all populations have access to appropriate and cost-effective care, and the evaluation of the effectiveness of that care.

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**Undergraduate Study**

**Public Health Minor**

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 file a petition at the Fielding School of Public Health Student Affairs Office, A1-269 Center for the Health Sciences. Enrollment is competitive and based on grade-point average and an application essay.

**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 150 (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 90, 91, 130, 132, M140, 180, 181, Health Policy and Management M110, C121, Public Health 53, M106, or M151. 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. Successful completion of the minor is indicated on the transcript and diploma.

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**Public Health**

**Lower Division Courses**

10. Introduction to Public Health. (4) Seminar, three hours. Designed for lower division students. Introduction to range of topics, issues, and frameworks to help students understand current public health issues and public health systems, policies, and practices. Prerequisite: P/NP or letter grading.


**Upper Division Courses**

M106. Health in Chicano/Latino Population. (4) (Same as Chicana and Chicano Studies CM106) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider...


M160A. Health Outreach and Education for At-Risk Populations. [4] (Same as Medicine 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 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, discussion groups, and field activities including health education. P/NP or letter grading.

Graduate Courses

M273. Responsible Conduct of Research in Global Health. [2] (Same as Epidemiology M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

299. Strategies for Success for Doctoral Students. [2] Seminar, two hours. Interactive seminar, with focus on research process, tips for success in academic, and important tools for leadership designed for all doctoral students in School of Public Health. S/U grading.

475. Pedagogy: Essential Skills and Innovative Strategies. [2] Seminar, two hours. Designed for School of Public Health doctoral students. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

Public Policy

Meyer and Renee Luskin School of Public Affairs

UCLA
3250 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656
(310) 825-7667, Department Office
(310) 825-0419, Admissions
fax faculty: (310) 206-0337
fax administration/admissions: (310) 206-2381
e-mail: mppinfo@laskin.ucla.edu
http://luskin.ucla.edu/public-policy

Michael A. Stoll, Ph.D., Chair

Professors
Joel D. Aberbach, Ph.D.
Albert Carnesdale, Ph.D.
Michael R. Darby, Ph.D. (Warren C. Cordrnan Professor of Money and Financial Markets)
J.R. DeShazo, M.Sc., Ph.D.
Franklin D. Gilliam, Ph.D.
Neal Halpern, M.D., M.P.H.
S. Jody Heymann, M.D., Ph.D.
Sanford M. Jacoby, Ph.D. (Howard Noble Professor of Management)
Robert T. Jensen, Ph.D.
Matthew E. Kahn, Ph.D.
Mark A.R. Kleinman, Ph.D.
Susanne Lohmann, Ph.D.
Mark A. Peterson, Ph.D.
Thomas H. Rice, Ph.D.
Andrew Sabl, Ph.D.
Michael A. Stoll, Ph.D.
Fernando M. Tornos, M.D., Ph.D.
John D. Villaseñor, Ph.D.
Lynne G. Zucker, Ph.D.

Professors Emeriti
Robert Dallek, Ph.D.
Joel F. Handler, J.D. (Richard C. Maxwell Professor Emeritus of Law)
Michael D. Intriligator, Ph.D.
Archie Kleingartner, Ph.D.
Arleen Leibowitz, Ph.D.
Daniel J.B. Mitchell, Ph.D. (Ho-Su Wu Professor Emeritus of Management)
Barbara J. Nelson, Ph.D.
Richard N. Rosecrance, Ph.D.
Allen J. Scott, Ph.D.
Charles E. Young, Ph.D.

Associate Professors
Aaron L. Panofsky, Ph.D.
Meredith Phillips, Ph.D.
Sarah J. Reber, Ph.D.
Manisha Shah, Ph.D.
Wesley E. Yin, Ph.D.

Assistant Professor
Randall K. Akee, Ph.D.

Lecturers
C. Mike Dennis, M.P.A., C.P.F.O.
Rick Tuttle, Ph.D.

Adjunct Assistant Professor
Brett Williams, Ph.D.

Visiting Professor
Michael S. Dukakis, J.D.

Scope and Objectives

The Department of Public Policy is an interdisciplinary unit composed of faculty members from various disciplines, some of whom hold joint appointments in other UCLA departments. Its goal is to foster an understanding of the theory and practice of public policy in the many fields in which it applies. Examples include education, healthcare, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (M.P.P.) degree and participates in the undergraduate minor in Public Affairs. The M.P.P. degree program is designed to train professionals in both public- and private-sector policy analysis and implementation and provides coursework in such areas as microeconomics, statistics, political processes, and public and nonprofit management.

Concurrent degree programs allow students to combine study for an M.P.P. with work toward a J.D. in the School of Law, an M.B.A. in the Anderson Graduate School of Management, an M.D. in the Geffen School of Medicine, an M.P.H. in the Fielding School of Public Health, or an M.S.W. in the Department of Social Welfare. The undergraduate minor in Public Affairs familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For further information on the minor, see Public Affairs earlier in this section of the catalog.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrrintr0.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Department of Public Policy offers the Master of Public Policy (M.P.P.) degree. Five concurrent degree programs (Public Policy M.P.P./Law J.D., Public Policy M.P.P./Management M.B.A., Public Policy M.P.P./Medicine M.D., Public Policy M.P.P./Public Health M.P.H., and Public Policy M.P.P./Social Welfare M.S.W.) are also offered.

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.

Upper Division Courses

C101. Drug Abuse Control Policy. [4] Lecture, three hours; outside study, nine hours. Introduction to drug abuse as social problem and to drug abuse control as policy issue, with examination of both necessity and difficulty of making and executing wise policies around psychoactive substances. Concurrently scheduled with course C235. Letter grading.

102. Imperfect Rationality. [4] Lecture, three hours; outside study, nine hours. Idea that individuals are capable of acting rationally, in their own interest, is central to economic theory and to custom, law, and common sense thinking. Economics offers thorough account of ways in which such people should deal with choice, risk, and time. Casual observation and experimentation agree that actual behavior deviates in systematic ways from prescriptive model of rationality. Groups of rationally seeking individuals might fail to act as rationally self-seeking groups. Consideration of deviations between rational choices and actual behavior in public policies. Letter grading.

103. Education and the Economy. [4] Lecture, three hours; outside study, nine hours. Impact of education policies on labor market, including mechanism of human capital, labor unions, and corporate and political strategies. Public policies in the area of education and economic development. Letter grading.

104. Return to Public Policy. [4] Lecture, three hours; outside study, nine hours. How do programs succeed or fail? The theory and practice of public policy in the many fields in which it applies. Examples include education, healthcare, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (M.P.P.) degree and participates in the undergraduate minor in Public Affairs. Letter grading.
103. Ethics, Morality, and Public Life: Contemporaneous Controversies. (4) Lecture, four hours; outside study, eight hours. Study of ethical and moral questions that arise in public life. Goal is to enable students with a given body of factual knowledge or to develop new quantitative or social science methodologies to analyze such questions, but to enhance their critical thinking and analytical skills.

104. Culture and Political Structure of Los Angeles. (4) Lecture, three hours; outside study, nine hours. Exploration of two pieces of the puzzle in modern American cities. How do city dwellers and city officials view their city and their neighborhoods? How do these perspectives help to explain the political dynamics of Los Angeles? How does the city's structure bind us all together? Who are the communities living here? How do they organize themselves and develop leaders? How does integration into mainstream take place? What is "mainstream" today? How does political structure help or impede the notion of a united city? Letter grading.

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 in American and international leadership in times of stress and change. Letter grading.

112. Controversies in Education Policy. (4) Lecture, three hours; outside study, nine hours. Focus on several controversial topics in contemporary education. Topics vary each year and include multiculturalism, affirmative action, test score gap, bilingual education, and school choice. Introduction to major arguments of policymakers and fundamental questions of education and governance to encourage students to critically evaluate logic and evidence behind these policies. 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 health-care 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 as share of GDP. Examination of major institutions within criminal justice system. Theories of crime causation and prevention and their relationship to policymaking. Letter grading.

114. Employment and Labor Policy. (4) Lecture, three hours; discussion, one hour. Study of major labor policies and to encourage students to critically evaluate logic and evidence behind these policies. Letter grading.


117. Decision Making in U.S. Foreign Policy. (4) Same as Political Science M121B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisites: Political Science 10A, 40, 103. Examination of how policymakers make decisions in the foreign policy-making process. Concurrently scheduled with course CM250. Letter grading.


C120. Race, Inequality, and Public Policy. (4) (Same as African American Studies M120.) Lecture, three hours; discussion, one hour. Background in economics, social sciences, or public policy required but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

C122. Ethics and Governance. (4) Same as Political Science M115A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for junior, senior, and graduate students with a given body of factual knowledge or to develop new quantitative or social science methodologies to analyze such questions, but to enhance their critical thinking and analytical skills. Letter grading.

C123. U.S. National Security Policy. (4) Same as Political Science M125B.) Lecture, three hours; outside study, nine hours. Study of major issues in morality, or lack thereof, of government policies and to encourage students to critically evaluate logic and evidence behind these policies. Letter grading.


C127. Critical Policy Issues and Problems in Globalizing World. (4) Lecture, three hours; outside study, nine hours. Designed for juniors/seniors. Examination of how public interest 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.

141. Employment and Labor Policy: Survey. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. Introduction to current public policy issues in employment, and labor markets. Historical context for current employment and labor policies in the U.S. Pro and con philosophical analysis of reasons for government regulation. Analysis of current public policy issues, the workplace, and labor-market trends. Worker diversity, education and training, social welfare policy, and globalization: immigration, trade, and international markets as it affects the workplace. Letter grading.

C144. Comparative Industrial Relations. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. At national and international levels, historical and contemporary analytical comparison of political, social, and economic contexts influencing human resource systems of selected developed countries. In addition to discussing possible frameworks for analyzing human resource systems, examination of institutions and ideologies of labor, management, and government, and interaction of their political and social institutions; study of determination of "web of rules" governing rights and obligations of the parties; and resolution of conflicts. Concurrently scheduled with course CM231. Letter grading.

145. Labor Policies in the U.S.: Historical Perspective. (4) Lecture, three hours; outside study, nine hours. Requisite: course 10A. Insight into evolution of labor policies in the U.S. from 19th century to the present. Exploration of important policy areas such as child labor, labor standards, protective legislation for women workers, industrial relations, civil rights, occupational safety and health, and international labor standards in (1) historical context (economic, political, and social factors that shaped the debate), (2) motivation and action of major players (business, labor, government), and (3) changing patterns of government influence.

C146. Democracy, Disobedience, and Dissent. (4) Lecture, three hours; outside study, nine hours. Requisite: Philosophy 6 or Political Science 10. Theories of action and legal obligation in contemporary political ethics; justified disobedience in response to inequality, injustice, and social exclusion; moral and religious pluralism as argument for both obedience and dissent. Letter grading.

C147. Critical Policy Issues and Problems in Globalizing World. (4) Lecture, three hours; outside study, nine hours. Designed for students to (1) think of world in dynamic terms, (2) be able to map, divide, and assess the world in many different ways, and (3) be able to articulate patterns of flux, change, and movement in world space and history. Concurrently scheduled with course C245. Letter grading.
148. Business and Public Policy. (4) Lecture; three hours; outside study, nine hours. Requisite: course 10A. Introduction to key issues arising at interface between business and public policy. Discussion of how and why government focuses so intensively on regulating economic outcomes, nature of business/government relationship, business political activity, and major government policies. May include economic regulation (industrial policy, antitrust, technology policy); social regulation of business (energy, environment, risk, liability, corporate social responsibility, business ethics, and green business). Discussion of issues in their historical and political context, with comparison between economic regulation in the U.S. and other countries. Letter grading.

M149. California Sustainable Development: Economic Perspective. (4) (Same as Environment M135 and Urban Planning M163.) Lecture, three hours. Examination of specific environmental challenges that California faces. Microeconomic perspective used with special emphasis on incentives of polluters to reduce their pollution and incentives of local, federal, and state government to address these issues. Focus on measurement and empirical hypothesis testing. P/NP or letter grading.

CM182. Science, Technology, and Public Policy. (4) (Formerly numbered C182.) (Same as Electrical Engineering CM182.) Lecture, three hours. Recent and continuing scientific and technological developments are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, technological, and legal aspects. Concurrently scheduled with course CM282. Letter grading.

M186. Equal Rights and Unequal Education. (4) (Same as Education M186 and Political Science M183.) Lecture, four hours. Exploration of contradictions between American beliefs about equal opportunity and racial equality and inequalities that exist in public education. Specific topic areas include education as vehicles for understanding philosophical and empirical complexities of issues surrounding equality in American education and life. Examination of issues from legal, sociological, political, and philosophical perspectives. Arguments range from Martin Luther King to Ronald Reagan, and legal cases include Plessy versus Ferguson to Brown versus Board of Education, as well as cases still pending in courts. Letter grading.

187. Research Seminar: Public Policy. (4) Seminar, three hours; outside study, nine hours. Requisite: course 10A. Limited to and required of seniors in Public Affairs concentration of students who in research projects that examines in depth one particular policy issue in its social context, including political pressures involved and problems of implementation. Emphasis on skills of data acquisition and analysis, conceptualization, and written analysis and presentation. Letter grading.

191A. Variable Topics Research Seminars: Public Policy. (4) Seminar, three hours; outside study, nine hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Public Policy. (5) Seminar, three hours; outside study, six 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.

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.

191D. Variable Topics Research Seminars: Public Policy. (1) Seminar, one hour; outside study, two 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.

193A. Marschak Colloquium: Social Sciences. (2) Seminar, two hours. Limited to undergraduate students. Attendance at biweekly Marschak Colloquium presentations, highly regarded and long-standing interdisciplinary lecture series given by leading social science experts, required. Discussion of lecture topics and research models in behavioral sciences. Letter grading.

197. Individual Studies in Public Policy. (2 or 4) Tutorial, four hours. Preparation: 3.0 grade-point average. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201. Principles of Microeconomic Theory I. (4) Lecture, three hours; outside study, nine hours. First course in two-term sequence (see course 204) to prepare students for economic analysis of public policy, with view 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.

202. American Political Institutions and Processes. (4) Lecture, three hours; outside study, nine hours. Designed to provide background necessary to develop strategies for dealing effectively with political environment of policy and administration. Discussion of U.S. constitutional arrangements, followed by instrumental and integrative examination of primary institutions of politics and governance from organized interests to legislatures, bureaucracies, and courts. Letter grading.

203. Statistical Methods of Policy Analysis I. (4) Lecture, three hours; outside study, nine hours. First course in two-term sequence (see course 208) to provide an overview of statistical principles useful to policy research and analysis. Topics include descriptive statistics, expectations, variance, correlation, covariance, independence, random sampling, estimators, unbiasedness and efficiency, statistical inference, confidence intervals, and hypothesis testing. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture, three hours; outside study, nine hours. Requisite: course 201. Second course in two-term sequence (see course 201) covering both theory and policy applications. Topics include monopoly, factor markets, government policy instruments, externalities, public goods, uncertainty, and intertemporal optimization. Letter grading.

205. Institutional Leadership and Public Manager. (4) Lecture, three hours; outside study, nine hours. Examination of leadership role of executives in public service as they lead and manage in tough day-to-day world of politics and intensive public scrutiny. Heavy emphasis on case studies that focus on what public managers do, political and organizational environment in which they find themselves, and skills they need both inside and outside their organization to get things done with high degree of competence and integrity. Letter grading.

206. Political Economy of Policy Adoption and Implementation. (4) Lecture, three hours; outside study, nine hours. Analysis of how policy is formed, adopted, and implemented. How policies are formulated, by whom, how policy agendas are set, how to define relationships between politicians, bureaucrats, lobbyists, and media experts. Letter grading.

207. International Political Economy. (4) Lecture, three hours; outside study, nine hours. Examination of political, legal, and social institutions to show where the U.S. fits in among varieties of modern capitalism and its relationship/governmental policies. Domestic political policy options nations are pursuing in response to economic globalization, such as protectionism, mercantilism, and deregulation. Introduction to international institutions, including NAFTA, and to nongovernmental organizations created to deal with special problems such as global environmental crisis. Letter grading.


209. Management in the 21st Century. (4) Lecture, three hours; outside study, nine hours. Overview of moral philosophy, political theory, and public-sector ethics using readings from classical and contemporary literature and case studies. Consideration of various ways in which terms such as “democracy” and “liberty” are used in public discourse. Practice in developing and defending moral arguments, both orally and in writing. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course to precedes three-term sequence (288A, 288B, 288C) in methods of policy evaluation and implementation and are equivalent to professional master's theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

211. Normative Issues in Policy Analysis. (4) Lecture, three hours; discussion, one hour. Limited to graduate students. Introduction to some basic normative categories, arguments, and tools essential for addressing questions of public policy. Normative questions are those that concern whether actions, characters, or states of worlds are right or wrong— or, in less absolute cases, better or worse than possible alternatives. Allegedly value-free methods of analysis do not help decide policy questions. Certain policy questions raise normative issues more urgently than others: those that go beyond matters of economic efficiency and touch on questions of human dignity, equality, justice, or national or cultural traditions. Some questions that seem to be subject to efficiency analysis raise some strong ethical concerns distinct from those of efficiency. Discussion of disagreement that exists over both what efficiency is and in what cases or across what dimensions it ought to govern. Letter grading.

M212. Child Welfare Policy. (4) (Same as Social Welfare M212.) Lecture, three hours. Development of social welfare as it affects children from different cultural backgrounds and as it is given form in public child welfare system. Examination of development of infrastructure to support needs of children and families. Letter grading.

M213. Mental Health Policy. (4) (Same as Social Welfare 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 mental illness and services they are provided. S/U or letter grading.

M215. Health Policy. (4) (Same as Social Welfare M290M) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery, providing an in-depth, normative perspective on the emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

M216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290N) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and communities, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M218. Research Design and Methods for Social Policy. (4) (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and 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 transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypothesis, 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 M253.) Lecture, three hours. Requisites: courses 201 and 203, or Urban Planning 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip generation, trip distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

M222. Transportation Economics, Finance, and Policy. (4) (Same as Urban Planning M256.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation; historical perspective on evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transit services. Letter grading.

M223. Transportation and Environmental Issues. (4) (Same as Urban Planning M258.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues; chemistry of air pollution, intraregional and historical survey of evolution of regional planning; federal, state, and local levels. S/U or letter grading.

M224B. Advanced Geographic Information Systems. (4) (Same as Urban Planning M206B.) Studio, three hours. Requisites: course M224A or Urban Planning M218. Exploration of the use of 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.

M225. Transportation and Environmental Issues. (4) (Same as Social Welfare M290V and Urban Planning M258B.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. Letter grading.

M227. Nonprofit Sector, State and Civil Society. (4) (Same as Social Welfare M290S and Urban Planning M267B.) Lecture, three hours; outside study, nine hours. Nonprofit organizations are one of the forces that have shaped the current landscape of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Welfare M241E and Urban Planning M258.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for maintaining social objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M229. Law and Management of Nonprofit Organizations. (4) (Same as Management M225S.) 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, boards of directors, and financial and legal responsibility for boards. Use of case studies to troubleshoot critical challenges, from finance to crisis management to marketing, that nonprofit managers typically face. Letter grading.

M230. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M206A.) Lecture, three hours; outside study, one hour. Preparation: one graduate-level statistics course, familiarity with one packaged statistics program. Principles of Geographic Information Systems (GIS) and applied techniques for planning and development decisions about transportation and land use. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address planning problem. Letter grading.

M231. Comparative Industrial Relations. (4) (Same as Management M255S.) Lecture, three hours; outside study, nine hours. Requisites: Management 409 or elementary knowledge of labor economics. At national and international level; introduction to comparative theory of industrial relations. Focus on employment relations. Letter grading.

M232. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of political processes of determining public policies in the federal budget, how government really works and for developing plans for funding policies. Letter grading.

242. Regional Development, Urbanization, and Industrial Policy. (4) Lecture, three hours; outside study, nine hours. Survey of regional development, with special reference to “new economic geography” and its relevance for formulation of local economic development policies. Letter grading.

M243. Community Development and Housing Policies: Role of Politics and Interpersonal Policy. (4) (Same as Social Welfare M230U and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of public and private entities and role of political agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through new approaches? What lessons can be learned from experiences of other countries? Letter grading.

M244. Transportation Policy and Planning. (4) (Same as Urban Planning M255.) Lecture, three hours; outside study, nine hours. To enable students to (1) think of world in economic terms, (2) be able to map, divide, and assemble world in many different ways, and (3) be able to articulate patterns of flux, change, and movement in world space and time. History. Consideration of conflicts between transportation and urban interests. Course concludes with course C147. Letter grading.

M246. Electoral Democracy: Theory and Behavior. (4) (Same as Political Science M268B.) Seminar, three hours. Examination of both empirical and normative questions from rich variety of perspectives for scholars in all subfields of political science as well as policy students and others interested in these issues. Consideration of topics fundamental to both democratic theory and study of American politics—public opinion; nature and purpose of elections; representation; parties; and purpose of democracy as whole—through both classic political theory treatments and modern research in American political behavior. Letter grading.

M247. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Social Welfare M241F and Urban Planning M290.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical problems of process solving regarding substantive social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.

M248. Technology, Securitism, and Diversity. (4) (Same as Political Science M216.) Seminar, three hours. Prior experience in political or legal theory helpful. Exploration of both abstract concepts of tollerism and contemporary disputes. S/U or letter grading.

CM250. Environmental and Resource Economics and Policy. (4) (Same as Urban Planning M267.) Lecture, three hours. Requisites: courses 204 and 206, or Urban Planning 207 and 220B. Survey of ways economic concepts are used to define, analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists that bear on role and role of policy. Course concludes 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 and used 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 are organized into small groups to facilitate review of assigned readings and to report key information to class. Based on assigned readings, development of budget strategy matrix outlining best practices budget strategies to use in various resource availability contexts. Letter grading.

M252. Introduction to Environmental Policy. (4) (Same as Urban Planning M263.) Lecture, three hours. Introduction to basic concepts and methods of environmental analysis covering variety of topics with cross-disciplinary perspectives. Development of ability to analyze major environmental and resource issues as well as to read, discuss, and write critically about environmental policy. Letter grading.

M253. Lesbian, Gay, Bisexual, and Transgender Law and Public Policy Research. (4) (Same as Law M675.) 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 protections for 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 analyses. Course concludes with discussion 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 social science research, challenges in conducting objective research, and effective presentation of social science research before legislators, judges, juries, media, and other audiences. S/U or letter grading.

M260. Foundations of Social Welfare Policy. (4) (Same as Social Welfare M221A and Urban Planning M241L.) Lecture, two hours; discussion, one hour; outside study, nine hours. Introduction to public and nonprofit welfare institutions in different societies; applicable social system theory of different components of welfare system; theory and research about welfare policies and organizational forms. S/U or letter grading.

M251. Aging Policy, Elderly and Families. (4) (Same as Social Welfare M230P) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and concepts that affect policy toward aging. Development of skills to examine these challenges from strategic view of current challenges and hone student analytic skills to examine these challenges from strategic policy perspective. Concurrently scheduled with course C123. Letter grading.

M252A. Research and Development Policy. (4) (Same as Management M292A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

M252B. Growth, Science, and Technology. (4) (Same as Management M292B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology. Patterns of invention and innovation; characteristics of 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.

M258. Political Environment of American Business. (4) (Same as Management M293A.) Lecture, three hours. Examination of certain critical issues which may be seen as the result of trends in American political and economic development. Thought to provide clearer understanding of principal features of American politics, especially as they influence business enterprise. S/U or letter grading.

CM252. Science, Technology, and Public Policy. (4) (Same as numbered Course, Electrical Engineering CM282.) Lecture, three hours. Recent and continuing advances in science and technology
are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, and technological aspects. Concurrently scheduled with course CM182. Letter grading.

M286. Policy Analysis of Emerging Environmental Technologies (same as Urban Planning M21). Lecture, three hours. Acquisition and utilization of economic, financial, planning, and policy analytic tools needed to evaluate factors that drive market adoption 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.

M289A-M290B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4) (Same as Education M289A-M289B, Political Science M287A-M287B, and Sociology M290A-M290B.) Seminar, four hours. Examination of metropolitan American society and institutions at beginning of 21st century. Consideration of best available information on patterns of settlement, changing functions of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How does the demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization of work and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equal opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M289A) and transgenerational mobility. In Progress (M289A) and Sociology (M289B) grading.

290. Special Topics in Public Policy. (4) Discussion, three hours. Advanced seminar on emerging issues in public policy. May be repeated for credit. Letter grading.

M293. Privatization, Regulation, and Public Finance. (4) (Same as Urban Planning M243.) Lecture, three hours; outside study, nine hours. Requisite: course 201. Valuation of economic and political determinants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as expressed through new pricing, financing, and service-level policies. Exploration of new regulatory role this trend implies for state and local governments. Letter grading.

294. Education Markets and Education Policy. (4) Lecture, three hours. Designed for graduate students. Provides set of tools that can be used to analyze pressing policy questions in field of education and some substantive background in policy issues of the day. Letter grading.


297A. Marschak Colloquium: Policy Implications in Behavioral Sciences. (2) Seminar, two hours. Limited to graduate students. Students attend biweekly Marschak Colloquium presentations given by leading social science experts. Analysis and discussion of lecture topics and research models in behavioral sciences in this highly regarded and long-standing interdisciplinary lecture series that meets separately from colloquium presentations. Letter grading.

297B. Introduction to Public Policy. (2) Lecture, three lecture hour. Designed for graduate students. Introduction to purposes and methods of public policy analysis. Exposure to key concepts and tools, such as market failures, decision analysis, cost/benefit analysis, behavior, and implementation. Case studies supplement lectures and texts. S/U grading.

297C. Public Policy Analysis Lectures. (2) Activity, two hours. Limited to M.P.P. 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 extra-curricular programs adds to pedagogical and intellectual maturity of students as they gain greater understanding of complexity of public policy issues by hearing wide variety of voices. S/U grading.

298A. Applied Policy Project I. (2) Seminar, 90 minutes; outside study, four or one half hours. Requisite: course 210. Limited to M.P.P. students. First course of year-long sequence designed to ensure that students and their teams are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, select and refine policy questions motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.

298B. Applied Policy Project II. (6) Seminar, three hours; outside study, 15 hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298A. Second course in three-term sequence in which students prepare major public policy projects and papers that are case studies in transition evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

298C. Applied Policy Project III. (2) Seminar, two hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Third course in three-term sequence in which students complete research and report writing for their year-long projects, conduct oral presentations of their applied policy projects, and present written feedback on other student presentations. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

590. Directed Studies. (2 to 6) Tutorial, to be arranged. Limited to graduate students. Individual program for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.

RADIATION ONCOLOGY

David Geffen School of Medicine

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Chair
Dieter R. Enzmann, M.D. (Leo G. Rigler Professor of Radiological Sciences)

Scope and Objectives

The medical student program in the Department of Radiological Sciences is designed to introduce students to the spectrum of diagnostic imaging modalities and their role in the clinical management of patients. It provides knowledge of essential radiographic anatomy and key imaging features of common diseases. The basic principles of all forms of diagnostic imaging pertaining to thoracic, mus-
more specific religions. Students may wish to select this major in combination with a second major field, a minor, or related language study.

**Undergraduate Study**

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.

**Study of Religion B.A.**

**Capstone Major**

**Preparation for the Major**

*Required:* Study of Religion M4 or 11, and two courses from Ancient Near East 10W, Anthropology 9, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M61W.

**Transfer Students**

Transfer applicants to the Study of Religion major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admis _tr.htm for up-to-date information regarding transfer selection for admission.

**The Major**


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion. During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper division courses in an ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

**Honors Program**

The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member. Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in Spring Quarter of the junior year, the second during the following Fall Quarter, and the third during Winter Quarter of the senior year. The three courses count as part of the regular requirement of 12 upper division courses. The program culminates in an honors thesis.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For further information, contact the student affairs officer or the faculty adviser at the program address.

**Study of Religion Minor**

To enter the Study of Religion minor, students must have an overall grade-point average of 2.0 or better.

*Required Lower Division Courses (4 to 10 units):* Study of Religion M4 or 11, or M50 and M60A or M60W.


For further information, contact the student affairs officer or the faculty adviser at the program address.

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.

A course may be taken twice, on different topics, for credit toward the minor where repetition is allowed by the department offering the course. A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. 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. Comprehensive study of eight major religious traditions, with emphasis on their beginnings and subsequent development in light of their respective historical and cultural contexts. Equips students with intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating human phenomena identified as religious, such as sacred acts, places, words, and persons in their varied historical contexts. Development of student skills in critical thinking, analyzing documents, and making persuasive arguments based on historical evidence. P/NP or letter grading.

M10. Social, Cultural, and Religious Institutions of 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 messiah; history of Talmud and synagogue; evolution of folk beliefs and practices, and life-cycle. P/NP or letter grading.

M11. Religion in Los Angeles. (4) Lecture, four hours. Introductions 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 myriad ways that sacred is made manifest and encountered. Foundational academic orientations within study of religion (anthropological, historical, psychological, sociological, etc.) used as framework to examine and interpret everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Letter grading.


M20. Introduction to Hindu Studies. (5) Same as Asian M60.) Lecture, four hours; discussion, one hour. Knowledge of Asian languages not required. Introduction to Hindu thought and practice, and cultural developments of Asian religions in South Asia. Letter or pass/fail grading.

### Upper Division Courses


M105A-M105B-M105C. Baha’i Faith in Iran. (4-4-4) (Same as Islamic M105A-M105B-M105C.) Lecture, three hours. Reading in English. Each course may be taken independently for credit. P/NP or letter grading.

M105A. Historical and Sociological Survey. Historical record of birth and spread of Baha’i’s in Iran and Iran itself. P/NP or letter grading.

M105B. Baha’i Teachings That Transformed Iran. Knowledge of Baha’i’s in Iranian society and role of Baha’i faith in Iran from beginning to present. P/NP or letter grading.

M105C. Baha’is in Contemporary Iran. Role of Baha’i’s in fabric of Persia society as agents of modern education and communal service. P/NP or letter grading.

M106. Premodern Islam. (4) Same as History M106.) Lecture, three hours; discussion, one hour. (When scheduled) Designed for juniors/seniors. Examinations of major 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 unbelievers. Letter grading.

M106A. Premodern Islam. (4) Same as History M106A.) Lecture, three hours; discussion, one hour. Open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious practice in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Letter grading.

M106B. Modern Islam. (4) Same as History M106.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious practice in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Letter grading.

M106C. Modern Islam. (4) Same as History M106C.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Chinese not required. General survey of religious practice in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Letter grading.

M107. Islam in West. (5) Same as Arabic M107 and Islamics M107.) Lecture, three hours. Reading in English. Each course may be taken independently for credit. P/NP or letter grading.

M108. Qur’an. (4) Same as Arabic M108.) Lecture, four hours. How Qur’anic doctrine, rituals, and culture, and how through history Muslims have determined interpretations and applications of Qur’anic doctrine and prescriptions. Critical evaluation and application of contemporary course work to Islamic culture and society. P/NP or letter grading.

M109. Introduction to Islam. (5) Same as Islamics M110.) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith. Study of Islamic law and political science. P/NP or letter grading.

M110. Religion and Violence. (4) Seminar, three hours; discussion, one hour. Exploration of capacity of religious traditions to mobilize and legitimate violence. P/NP or letter grading.

M120. Abrahamic Religions: Traditions in Tension. (4) Seminar, three hours. Examination of Abrahamic tradition as received and developed by Jews, Christians, and Muslims according to rubrics of linkage and interaction, with view both to potential clashes in the 21st century and to resources inherent in these traditions for heading off such clashes and misunderstandings. P/NP grading.

M132. Ancient Egyptian Religion. (5) Same as Ancient Near East M130.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and social structures of ancient Egypt. Examines ancient Egyptian religious culture as coherent system of thought and sphere of action that once served as meaningful and
M161B. Japanese Buddhism. (4) (Same as Japanese CM160B) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Development of Buddhism in Japan with emphasis on key ideas and teachings. Letter grading.

M161C. Korean Buddhism. (4) (Same as Korean CM160C) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinocentric traditions of Buddhism. Letter grading.

M161D. Buddhism in India. (4) (Same as South Asian Studies M160B) 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 inscriptional sources. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Letter grading.

M172. Introduction to Biblical Studies. (4) (Same as Ancient Near East M170.) Lecture, three hours. Knowledge of original languages not required. Bible (Old and New Testaments) as book, canon, text, and various linguistic, literary, historical, and religious approaches to Bible study. Survey of history of interpretation from antiquity to present. P/NP or 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. Consideration of religious dimension of people's experience in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on developments in religion to other aspects of American culture. 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. Exploration of dynamic and millennia-old interaction of Jews with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.

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 adaptations that have lent Jewish culture its distinct and various forms. 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 C.E., stressing continuity/dissolution, with emphasis on Mesopotamia and Syria and with reference 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.

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 C.E. as in context of developing Christian movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magick, magic, 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 M186A. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led into firsthand knowledge (in translation) of various multi-layered 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.

M188SL. Applied Jewish Studies and Social Ethics. (4) (Same as History M188SL and Jewish Studies M188SL.) Lecture, three hours; fieldwork, two hours. Introduction to history, theory, and practice of applied Jewish studies. Analysis of historical and contemporary texts on Jewish social ethics and justice (biblical, rabbinic, medieval, and modern) paired with service learning in Jewish social justice organizations that work with diverse populations in Los Angeles communities. P/NP or letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of preparation for major courses and at least half of upper division courses required for major (including theory and method courses). Designed for senior majors. 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 relevant framework for understanding physical reality and human life for inhabitants of Nile Valley. General principles as well as developments through time (circa 3000 B.C. to 300 C.E.). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Middle Eastern Studies M133.) Lecture, three hours. Survey of Hebrew Bible/Old Testament, New Testament, and Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and sociocultural contexts through which these multiple texts emerged, and to explore major themes and consider variety of approaches to scripture. Development of appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M135. Religion in Ancient Israel. (4) (Same as Ancient Near East M135.) Lecture, three hours. Introduc- tory 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 B.C.E. P/NP or letter grading.

140. Undergraduate Seminar: Study of Religion. (4) Seminar, four hours. Interdisciplinary approach to some major topics in study of religion, such as relig- ious belief and practice and its relation to other areas of theo- retical discussion, such as philosophy of language, discourse analysis, epistemology, metaphysics, and ritual. May be repeated for credit with consent of instructor. P/NP or letter grading.

M142C. History of Religion in U.S. (4) (Same as History M142C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of religious dimension of people’s experience in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on developments in religion to other aspects of American culture. P/NP or letter grading.


M160. Religion, Film, and Media. (4) Lecture, four hours. Examination of complex relationship between religious traditions and various media (e.g., print, film, photography, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming 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, and the role of religious and secular in moder- nity, 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 adaptations that have lent Jewish culture its distinct and various forms. 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 C.E., stressing continuity/dissolution, with emphasis on Mesopotamia and Syria and with reference 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.

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 C.E. as in context of developing Christian movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, magic, 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 M186A. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led into firsthand knowledge (in translation) of various multi-layered 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.

M188SL. Applied Jewish Studies and Social Ethics. (4) (Same as History M188SL and Jewish Studies M188SL.) Lecture, three hours; fieldwork, two hours. Introduction to history, theory, and practice of applied Jewish studies. Analysis of historical and contemporary texts on Jewish social ethics and justice (biblical, rabbinic, medieval, and modern) paired with service learning in Jewish social justice organizations that work with diverse populations in Los Angeles communities. P/NP or letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of preparation for major courses and at least half of upper division courses required for major (including theory and method courses). Designed for senior majors. 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.


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.

**ROTC Program – Aerospace Studies**

**College of Letters and Science**

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Bruce A. Fike, M.A., Lieutenant Colonel, Chair
Professor
Bruce A. Fike, M.A., Lieutenant Colonel

**Scope and Objectives**

In accordance with the National Defense Act of 1920 and with the concurrence of The Regents of the University, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of the University in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training allows students to qualify for an officer’s commission in the Army, Navy/Marine Corps, or Air Force while completing their college education. The ROTC curriculum is not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four- and three-year programs for freshmen 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.

**Scholarships**

ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships provide tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Applications for scholarships may be obtained at http://www.afrotc.com 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 provides selected students the opportunity to develop those attributes essential to positions of high responsibility as commissioned officers in the U.S. Air Force. This includes understanding Air Force history, doctrine, operating principles, and national security policies, demonstrating the ability to apply modern principles of management and human relations in the Air Force environment, and mastering of leadership theory and techniques. Students must demonstrate dedication to their assignments, willingness to accept responsibility, and the ability to think critically and communicate with clarity and precision.

**Undergraduate Study**

The Air Force ROTC program is available to full-time students with at least three years of undergraduate and/or graduate study remaining and consists of one to two years of the General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course, or POC (Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C). For students completing the program in four years, GMC participation requires one hour of academic class and two hours of leadership laboratory each week during the academic year. For students completing the program in three years, GMC participation requires taking one course from Aerospace Studies 1A, 1B, or 1C, one course from 20A, 20B, or 20C, and two hours of leadership laboratory each week during the academic year. Students incur no military obligation for GMC participation unless they qualify and accept an Air Force ROTC Scholarship during or after their sophomore year.

Students who complete the GMC and wish to enter the POC attend a four-week 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 provided 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.

**Aerospace Studies**

**Lower Division Courses**

**Freshman-Year Courses**

A. Leadership Laboratory. (No credit) (Formerly numbered Z.) Laboratory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with leadership laboratory 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. Foundation of U.S. Air Force. (2-2-2) Lecture, one hour. Survey course designed to introduce students to U.S. Air Force and Air Force Reserve Officers’ Training Corps. Topics include mission and organization of Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and introduction to communication skills. P/NP or letter grading.

**Sophomore-Year Courses**

20A-20B-20C. Evolution of U.S. Air Force Air and Space Power. (2-2-2) Lecture, one hour. Historical survey of air and space power designed to motivate students to transition from Air Force ROTC cadet to officer candidate. Featured topics include Air Force heritage and leaders; introduction to air and space power through examination of competencies, functions, and doctrines; and continued application of 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. Study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of Air Force junior officers. Use of case studies to examine Air Force leadership and management situations as means of demonstrating and exercising practical application of concepts being studied. P/NP or letter grading.

140A-140B-140C. National Security Affairs/Preparation for Active Duty. (4-4-4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Study of national security processes, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics focus on military as profession, officership, military justice, civilian control of military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis on refining communication skills. P/NP or letter grading.

197. Individual Studies in Aerospace Studies. (2 or 4) Tutorial, three hours. Limited to juniors/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.
ROTC PROGRAM – MILITARY SCIENCE
College of Letters and Science

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Scope and Objectives
In accordance with the National Defense Act of 1920 and with the concurrence of The Regents of the University, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of the University in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

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All three ROTC departments offer voluntary four- and three-year programs for freshmen 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 provide full tuition or housing (on or off campus) up to $10,000, a $1,200 allowance for books and fees, and a tax-free monetary allowance between $300 and $500 per month during the academic year. Applications for four-year scholarships may be obtained at http://www.goarmy.com/rotc.html, by calling (310) 825-7381, or by e-mail to army.rotc@milsci.ucla.edu. Completed four-year applications should be submitted by February 28 of the year preceding college matriculation. Two- and three-year scholarship applications may be obtained from the UCLA Military Science Department and are considered when received.

Army ROTC Program
Army ROTC is a program that enables students to become officers in the U.S. Army, Army Reserve, or Army National Guard while earning a college degree. The curriculum supplements students’ academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership action courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations that include rappelling from a hovering helicopter (Air Assault School in Hawaii), and mountaineering operations (Northern Warfare School in Alaska).

Scholarships are available for two, three, and four years of academic study and are awarded on a competitive basis. Army Scholarships pay for full tuition and mandatory fees or housing, up to $10,000, and provide a tiered stipend ranging from $3,000 to $5,000 per year and a $1,200 book allowance. Non-scholarship, contracted ROTC cadets also receive the tiered stipend of $3,000 to $5,000 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 on military aircraft within the continental U.S. on a space-available basis.

Students may select a branch of the Army in which to be commissioned from 16 specialty fields, including military intelligence, aviation, signal communications, finance, logistics, nursing, and engineering. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserves or National Guard.

Undergraduate Study
Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-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 110 or another history course approved by the chair.

Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance between $450 and $500 a month for 10 months during each of the two academic years, plus military science uniforms. After completion of the Advanced Course and graduation, students have the opportunity to be commissioned as second lieutenants in one of the Army’s 16 specialty areas in either the Army National Guard, Reserves, or Active Army. Students’ preferences are a major factor in determining which specialty is awarded.

Students selected for Advanced ROTC must attend a five-week leadership development and assessment course between their Military Science III and IV years. Cadets receive an allowance for travel expenses and are paid for attendance.

The active duty obligation for those students selected to enter the Reserves or National Guard is for initial training, and only for a period of several months. The active duty obligation for those students commissioned into the Active Army is three years. Students who accept ROTC scholarships and enter the Active Army serve one additional year. ROTC students wishing to obtain certain advanced degrees may be granted a delay in reporting to their initial assignment.

Four-Year Program
Students are enrolled in the Basic Course (freshman and sophomore years) on a voluntary basis. After completion of the Basic Course and before entrance into the Advanced Course (junior and senior years), students are required to execute a contract with the Department of the Army agreeing to complete the Advanced Course and accept a commission if offered.

Two-Year Program
The two-year program is designed for students who receive placement credit for two years of ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leaders’ Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.
Commissioning

Successful completion of the Advanced Course program and a bachelor’s degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

Military Science

Lower Division Courses

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 for understanding 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.


14. Principles of Land Navigation Applicable in Maneuver. (2) Lecture, one hour; discussion, one hour. Introduction to topographic maps and aerial photographs and their relation to land navigation; conceptual linkage to basic military tactics. Topics include map coordinate systems, scale and distance relationships, intersection and resection, photo interpretation, squad and platoon operations, and resource planning techniques. Introduction to new technologies, including Global Positioning Systems (GPS).

18. Military Officership. (2) Lecture, one hour; discussion, one hour. Limited to undergraduate students. Introduction to low intensity conflict and guerrilla strategies; explanation/discussion of political, economic, religious, and social factors contributing to civil unrest and/or insurgencies. Topics include non-military responses, military tactics, interrelationship of military and government, psychological warfare, and civic actions.

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 development of 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. (4) Lecture, three hours; laboratory, four 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 writing as a means of communication essential for leadership development. Introduction to and application of military planning process in developing operations orders. P/NP or letter grading.

23. Subordinate Development and Army Organization. (2) Lecture, two hours. 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 Mapping 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 theories 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 ethical decision making, and development of skills needed to lead various organizations. Exploration of training management, leadership skills, and developmental counseling techniques. 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 developmental counseling techniques. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organizational culture, leadership, and ethics. Understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. 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. Computer interactive leadership course to prepare students for challenges of being commissioned officers in U.S. Army by discussing various leadership challenges and case studies. Study of military units, with specific emphasis on joint operations involving Army, Navy, Air Force, and Marine Corps assets, military operations other than war, and global war on terror. Other topics include personnel administration, maintenance management, and financial planning. P/NP or letter grading.

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.
Navy/Marine Corps ROTC Program

The Department of Naval Science provides professional training for students leading to an active duty commission at graduation in the U.S. Navy or Marine Corps. Through the Naval Reserve Officers’ Training Corps (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 midshipman battalion under the NROTC College Program and, like NROTC Scholarship students, they also 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 the University, as long as they agree to complete basic technical requirements. In addition to University requirements, Navy option midshipmen must complete 26 units and Marine Corps option midshipmen 18 units of naval science courses, physical fitness test, and summer training cruises, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. The department also conducts a sail training program for all Navy midshipmen. All naval science courses are open to students who are not in the program but have an interest in the Navy/Marine Corps and related fields, such as engineering, navigation and naval operations, history, and management.

Undergraduate Study

Scholarship Program

The majority of naval science students attend the University on Navy/Marine Corps Scholarships which are awarded primarily on a four-year basis to high school seniors selected by a nationwide competition. A two-year upper division scholarship program is also available, with a similar selection process, to students who have not yet begun their junior year in college. Applications for both types of scholarships are due by January 31 each year. In addition to tuition, fees, and uniforms, students receive subsistence pay of $250 to $400 per month and a book stipend. Scholarship students are obligated to serve on active duty for a minimum of four to five years following graduation and commissioning.

College Program (Nonscholarship)

Students attending the University who meet Navy/Marine Corps requirements but who do not have an NROTC Scholarship may enroll in the College Program during their freshman year. These students have the opportunity to compete for scholarships after the completion of one term of naval science courses. 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. A two-year College Program is also available to students who have not yet started their junior year. Students in the two-year College Program may apply to participate as members of the midshipman battalion under the NROTC College Program and, like NROTC Scholarship students, they also 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 the University, as long as they agree to complete basic technical requirements. In addition to University requirements, Navy option midshipmen must complete 26 units and Marine Corps option midshipmen 18 units of naval science courses, physical fitness test, and summer training cruises, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. The department also conducts a sail training program for all Navy midshipmen. All naval science courses are open to students who are not in the program but have an interest in the Navy/Marine Corps and related fields, such as engineering, navigation and naval operations, history, and management.

Navy Science

Lower Division Courses

A. Naval Science Laboratory. (No credit) Laboratory, one hour. Requisite: course 102C. Limited to Naval Science ROTC midshipmen. Designed to cover service-specific administrative processes that are requisite knowledge for actively commissioned Navy and Marine Corps officers. No grading.

Z. Leadership 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 inter-active processes within framework of organized midshipman-on-midshipman 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 propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. P/NP or letter grading.

20A. Naval Ship Systems II. (4) Study of naval weapon systems, with emphasis on infrared, radar, and sonar principles. Target designation and acquisition, methods of solving fire control problem, target detection systems. Analysis of transfer and feedback functions inherent in weapon systems. P/NP or letter grading.

20B. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examination in relation to economic, political, and cultural strengths, with focus on current abilities of specific nations to use oceans to attain national objectives. P/NP or letter grading.

Upper Division Courses


102B. Naval Leadership and Management I. (4) 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.

102C. Leadership and Ethics. (2) Lecture, two hours. Requisite for Naval Science ROTC midshipmen: course 102B. Capstone course that examines principles of leadership and ethics relevant to military leaders through study and interactive discussion of classical and contemporary source documents and case studies. Letter grading.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, and sociological and technological development factors have had on warfare and influence they continue to exert in age of limited warfare.

104. Expeditionary Military Operations. (4) Study of historical use of expeditionary military operations, with particular emphasis on doctrine, tactics, and equipment used. Examination of topics through study of political and military objectives by focusing on historical examples, including Marathon, Gallipoli, World War II, Korea, Beirut, and Grenada. Examination of contemporary doctrine through study of recent operations.

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. Assessed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

SCANDINAVIAN SECTION

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James R. Massengale, Ph.D.
Mary Kay Norseng, Ph.D.

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Arne O. Lunde, Ph.D.

Lecturer

Patrick J. Wen, Ph.D.

Scope and Objectives

Scandinavia consists of five northern European countries: Denmark, Finland, Iceland, Norway, and Sweden. These countries form a geographic bridge between the American and European continents and a political bridge between Western and Eastern Europe. For all students of literature, language, the arts, and the social and physical sciences, Scandinavia is of particular interest.
The modern Scandinavian program educates students about Scandinavia through the study of its languages and literatures. The Scandinavian Section offers both undergraduate and graduate degrees in the languages and literatures of Denmark, Norway, and Sweden. Danish, Norwegian, and Swedish are mutually understandable languages, giving the student of one access to the literatures and cultures of the other two. Both undergraduate and graduate majors are expected to concentrate on one Scandinavian language, though they study the literatures of the other language areas.

Undergraduate Study

Undergraduate Courses

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Danish, Norwegian, and Swedish grammar and/or composition. Students with demonstrated preparation may be permitted a more advanced program by the section or may be transferred to a more advanced course with consent of the instructor.

Native speakers of Norwegian, Swedish, and Danish may not enroll in any language course (including courses 105, 106, 107) in the Scandinavian Section except by petition in writing to the section. Non-Scandinavian students with knowledge of one of these Scandinavian languages may not take courses in the others except by petition in writing. Petitions must include a description of the student’s linguistic background and the reason for wanting to take the language course in question.

Scandinavian Languages and Cultures B.A.

Preparation for the Major

Required: Scandinavian 1, 2, 3, 4, and 5, or 11, 12, 13, 14, and 15, or 21, 22, 23, 24, and 25, or equivalent.

Transfer Students

Transfer applicants to the Scandinavian Language major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Scandinavian 105 or 106 or 107; 10 courses from the following five tracks, with at least one course in each track: (1) early Nordic literatures and cultures—Scandinavian C131, 132A, 132B, C133A, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, CM144A, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian 152, 155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, 166C, (5) cultural studies—Scandinavian C171, C174A, 174B, C175; and three Scandinavian 187FL courses, taken in conjunction with any upper division course applied toward the major.

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. It is recommended that students who plan to do graduate work in Scandinavian take German 1 through 6.

Scandinavian Minor

To enter the Scandinavian minor, students must have an overall grade-point average of 2.0 or better.

Required Courses (28 units): Any seven Scandinavian courses, two of which may be lower division courses selected from Scandinavian 1 through 50.

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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqntro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Scandinavian Section offers the M.A. degree in Scandinavian.

Scandinavian

Lower Division Courses

1. Elementary Swedish. (4) Discussion, four hours. P/NP or letter grading.
2. Elementary Swedish. (4) Discussion, four hours. Enforced requisite: course 1, P/NP or letter grading.
5. Intermediate Swedish. (4) Discussion, four hours. Enforced requisite: course 4, P/NP or letter grading.
6. Elementary Swedish: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in Swedish equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.
7. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
15. Intermediate Norwegian. (4) Discussion, four hours. Enforced requisite: course 14, P/NP or letter grading.
16. Elementary Danish. (4) Discussion, four hours. P/NP or letter grading.
17. Elementary Danish. (4) Discussion, four hours. Enforced requisite: course 21, P/NP or letter grading.
18. Elementary Danish. (4) Discussion, four hours. Enforced requisite: course 22, P/NP or letter grading.
26. 40. Heroic Journey in Northern Myth, Legend, and Epic. (4) 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 courses 40. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folktale, and epic, including Nibelungenlied, Volsunga saga, Beowulf. Cultural and historic backgrounds to texts. P/NP or letter grading.
27. 50W. Heroic Journey in Northern Myth, Legend, and Epic. (4) 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 50W. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folklore through modern novel, poetry, short story, and film, read in English and critically discussed. P/NP or letter grading.
28. 50W. Introduction to Scandinavian Literatures and Cultures. (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 50W. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folklore through modern novel, poetry, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.
29. 40W. Introduction to Scandinavian Literatures and Cultures. (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 40W. Designed for students in general and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Selected works from literatures of Denmark, Norway, Sweden, Iceland, and Finland, ranging from myth, national epic, saga, and folklore through modern novel, poetry, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.
30. Upper Division Courses


C131. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C231, Letter grading.

132A. Elementary Old Norse. (4) Lecture, three hours. Introduction to grammar and pronunciation of Old Norse. Selected readings from sagas and Prose Edda. P/NP or letter grading.


132C. Advanced Old Norse. (4) Lecture, three hours. Enforced requisite: course 132B. Readings from variety of Old Norse-Icelandic texts. Continuation of development of translation skills, as well as familiarity with Old Norse-Icelandic texts and philological, linguistic, literary, and cultural issues surrounding their interpretation. P/NP or letter grading.

C133A. Saga. (4) Seminar, three hours. Sagas are largest extrabiblical literary tradition in Norse. Texts in English, with selections from different types of Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C233A. Letter grading.

134. Scandinavian Mythology. (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, or Norse, myth. Reading and examination of this lore that is briefly preserved in two collections traditionally called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.


138. Vikings. (5) Lecture, three hours; discussion, one hour. Survey of history, anthropology, and archaeology of Viking Age society. Readings draw on medieval sagas as well as secondary material, focus on impact of Vikings on northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking invasions. P/NP or letter grading.


141B. Nordic Poetry. (4) Seminar, three hours. Readings in English translation. Survey of Nordic poetry from Middle Ages to present, including Poetic Edda of 13th-century Iceland, Scandinavian ballad tradition; some folk poetry from Finland's national epic Kalevala, and modern lyric. Reading of essays on translating poetry and consideration of particular problems poetry presents to translators, as well as what is lost and/or gained in translation. Study of poetry within following contexts: role(s) poetry has served in Nordic societies from 13th century to present day; Nordic poets' influence and contributions to European literary movements; and special status of poetry in preserving national languages and literatures, as indicated by financial support from Nordic states and publishers for professional poets and their poetry. 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 Nordic national theatre and drama as whole, as well as important contributions of their contemporaries and successors. Readings include plays, letters, speeches, and memoirs by Ludwig Holberg, Henrik Ibsen, August Strindberg, Pirjo Jokela, Kjeld Abell, Eva-Elisa-Maria Hahnfried Hugalmik 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, while following traditional rules of crime fiction, also analyze and often criticize rules and cultures of their societies. Reading of these works as representations of critical social and intellectual problems not only in Scandinavia, but in Europe and world at large, P/NP or letter grading.


C144A. Voices of Women in Nordic Literature. (4) (Same as Gender Studies M186.) Seminar, three hours. Requisite: course 5 or 15 or 25. Knowledge of Scandinavian languages not required for nonmajors. Readings and discussion of writings by Scandinavian women writers analyzed in historical, theoretical, sociological, critical, and comparative contexts. May be concurrently scheduled with course C244A. 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 theme of nature as modern idyll. May be concurrently scheduled with course C245B. P/NP or letter grading.

C146A. August Strindberg. (4) Seminar, three hours. Reading of Strindberg's portrayals of marital conflict reflected and shaped literary representation of so-called battle of sexes. Hamsun and others followed. Scandinavian writers analyzed in historical, theoretical, social, political, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

C154. Romanticism. (4) Seminar, three hours. Exploration of Romanticism in Scandinavian literature. Reading and discussion of different approaches to Romanticism and analysis of significant Scandinavian writers from Romantic period to understand Scandinavian Romanticism in larger European context, including work from both English and German Romantic writers and artists. P/NP or letter grading.


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.


C163A. Introduction to Danish Cinema. (4) (Formerly numbered 163A.) Seminar, three hours. Introduction to history of cinema in Denmark as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on film of particular director 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 C263A. P/NP or letter grading.

C165B. 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, Vilgot Sjöman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian art cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C265B. 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, Arne Skouen, Edith Carlsen, Nils Gaup, Erik Skjoldbjærg, Bent Harner, Khalid Hussain, and Petter Næss. Particular focus on popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C263C. P/NP or letter grading.

C166A. Ingmar Bergman. (4) (Formerly numbered 166A.) Seminar, three hours. Exploration of Ingmar Bergman's development as film artist through various periods, spanning mid-1940s and late 1970s. Contextualization of work of this most personal of filmmakers within multiple frameworks of postwar Swedish film industry, international art cinema, and issues of auteur filmmaking. Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C266A. P/NP or letter grading.

166C. Carl Dreyer. (4) Seminar, three hours. Carl Theodor Dreyer (1889 to 1964) is not only one of great masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half century between 1919 and 1964. Contextualization of silent and sound works of this most personal of film-
makers within multiple frameworks: Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Writings 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 subtitles. P/NP or letter grading.

C171A. Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to interpretive methodologies that strive to answer questions why do stories work the way that they do? Course concurrently scheduled with course C271. Letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Exploration of popular culture in Scandinavian through study of contemporary Scandinavian literature, film, music, and art. Investigation of how issues such as globalization, immigration, and nationalism are portrayed in popular culture in Denmark, Norway, Sweden, Finland, and Iceland. Discussion of how and why human condition is interpreted through study of cultural expressions and how it is possible—taking literature, film, and art as point of departure—to analyze cultural, historical, and political expression in given piece of art. P/NP or letter grading.

C174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in literary landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, as well as changed phenomenon of Rinkeby Swedish. Concurrently scheduled with course C274A. P/NP or letter grading.

174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th and 20th centuries. Scandinavian countries have had more progressive view on homosexuality than most other countries, and Scandinavian writers portrayed homosexuality in explicit and radical ways as early as 19th century. Introduction to key theoretical works within field of gay and lesbian studies and queer studies, as well as presentation of historical view of how homosexuality has been perceived in Western world. P/NP or letter grading.

C175. Introduction to Sami Language and Culture. (4) Lecture, three hours. Use of thematically arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to provide systematic overview of linguistic characteristics of Estonian language. At course end students should be able to communicate in Sami in variety of common social situations and should be equipped with necessary basic concepts to continue language acquisition and cultural studies in their social and professional milieu, interacting with native speakers, or taking formal courses at intermediate level. Concurrently scheduled with course C275. P/NP or letter grading.

C180. Literature and Scandinavian Society. (4) Seminar, three hours. Discussion of selected aspects of Scandinavian literature based on readings of contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by undergraduate advisor) with topic change. May be concurrently scheduled with course C280. P/NP or letter grading.

C185. Seminar: Scandinavian Literature. (4) Seminar, three hours. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and undergraduate advisor. May be concurrently scheduled with course C285. P/NP or letter grading.

187FL. Special Studies: Readings in Scandinavian. (2) Seminar, two hours. Request: course 5 or 15 or 25. Students must be concurrently enrolled in affiliated main course. Additional work in Nordic languages (Danish, Icelandic, Norwegian, Swedish) to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Scandinavian. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individually intensive study, with scheduled meetings to be arranged between faculty member and student. Assignments and reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Scandinavian. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

C231. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse prose. Course concurrently scheduled with course C131. Graduate students do additional readings and write more extensive research papers. Letter grading.

C233A. Saga, (4) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with selections from different types of Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

233B. Advanced Old Norse Prose. (4) Lecture, three hours. Exploration of Ingmar Bergman’s development as film artist through various periods, spanning mid-1940s to late 1970s. Contextualization of work of this most significant filmmaker in terms of his work on stage and in film industry, transnational European cinema, and is firmly rooted in cinematic traditions of his native Sweden. Preparation: advanced knowledge of one Scandinavian language. August Strindberg’s portraits of marital conflict reflected and shaped literary representations of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. 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. Ingmar Bergman. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. August Strindberg’s portraits of marital conflict reflected and shaped literary representations of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. 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.

C256B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Reading of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present. Filmakers include auteurs in international canon, such as Ingmar Bergman and Lina Wertmüller, and particularly women directors. Preparation: advanced knowledge of one Scandinavian language. Readings and critical method for discussing films in general and Danish cinema in particular. Other readings include selections from Hjort, Sandberg, Tangherlini, and other Scandinavian theorists. Concurrently scheduled with course C163A. S/U or letter grading.

C266B. 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 and Lina Wertmüller, and particularly women directors. Preparation: advanced knowledge of one Scandinavian language. Readings 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 C163B. S/U or letter grading.

C266C. Introduction to Norwegian Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include auteurs in international canon, such as Lars von Trier, and particularly women directors. Preparation: advanced knowledge of one Scandinavian language. Readings and critical method for discussing films in general and Norwegian cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163C. S/U or letter grading.

C266D. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include auteurs in international canon, such as Lars von Trier, and particularly women directors. Preparation: advanced knowledge of one Scandinavian language. Readings and critical method for discussing films in general and Norwegian cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163D. S/U or letter grading.

C266E. Seminar: Scandinavian Literature. (4) Seminar, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian, Norwegian, Danish, Icelandic, and Swedish literature, and critical method for discussing films in general and Norwegian cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163E. S/U or letter grading.

C266F. 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 significant filmmaker in terms of his work on stage and in film industry, transnational European cinema, and is firmly rooted in cinematic traditions of his native Sweden. Preparation: advanced knowledge of one Scandinavian language. August Strindberg’s portraits of marital conflict reflected and shaped literary representations of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. 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. Reading of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet 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 Scandinavian language. August Strindberg’s portraits of marital conflict reflected and shaped literary representations of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. 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.

C256B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Reading of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Lecture, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include auteurs in international canon, such as Lars von Trier, and particularly women directors. Preparation: advanced knowledge of one Scandinavian language. Readings and critical method for discussing films in general and Norwegian cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163C. S/U or letter grading.

C266B. 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, Viggo Sjöman, Jan Troell, Lukas Moodysson, and Jessica Hausner. Development of postwar Swedish film industry, international art cinema movement, and issues of auteur filmmaking.
Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C168A. S/U or letter grading.


C271. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Introduction to fairy tales and legends of Scandinavian tradition as well as to interpretive methodologies that strive to answer questions why do we tell stories that they tell? Concurrently scheduled with course C171. Letter grading.

M271. 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 origins of vernacular literatures, European romantic (rediscovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

M272. Collecting Oral Tradition. (4) (Same as English M205B.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

M273. Studies in Oral Traditional Genres. (4) Seminar, three hours. Preparation: advanced knowledge of oral tradition, from Homer and ancient Greece to 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

C274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large number of people from Turkey, Italy and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkeswedish. Concurrently scheduled with course C174A. S/U or letter grading.

C275. Introduction to Sami Language and Culture. (4) Lecture, three hours. Use of thematically arranged, structurally graduated readings, conversation topics, individual and group assignments, and journal writing to provide systematic overview of linguistic characteristics of Estonian language. At course end students should be able to communicate in Sami in variety of common social situations and should be equipped with necessary basic concepts to continue language acquisition. (Also offered for graduate study while in social and professional milieu, interacting with native speakers, or taking formal courses at intermediate level. 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 based on readings of contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by graduate adviser) with topic change. May be concurrently scheduled with course C180. Graduate students may meet for extra seminar hours and write research papers of greater length and depth. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. 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 6) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. Not may be applied toward M.A. minimum course requirements. S/U grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 9) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. Not may be applied toward M.A. minimum course requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (1 to 6) Seminar, to be arranged with faculty member who directs the study or research. May be repeated. S/U or letter grading.

M194A, M183A/M194A. Life Sciences 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 3A, Life Sciences 1 and Life Sciences 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, including Advanced Placement Tests.

6B). Prior participation in a supervised experience, either in elementary school classrooms to observe, participate, and learn the teaching and learning of science in elementary school classrooms. Pairs of students are placed in local elementary schools for four weeks. Introduction for prospective science teachers to field of elementary education and teaching. Note: Science Education 215 is designed for students who wish to teach as graduate students in their disciplines. The minor provides a background in teaching and learning science and the broad general science background included in California State subject matter credential examinations. selected coursework required for entry into a variety of postbaccalaureate credential programs, and field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, including Advanced Placement Placement.

Science Education Minor

The Science Education minor is designed for students who wish to become middle school and high school science teachers or who plan to teach as graduate students in their disciplines. The minor provides a background in teaching and learning science and the broad general science background included in California State subject matter matter credit requirements. Students must consult with the academic coordinator for the minor to plan a coherent program to complete both the minor and their major, prior to filling a petition to enter the minor.

Required Lower Division Courses (6 to 7 units): Science Education 10SL and Earth, Planetary, and Space Sciences 1 (Earth, Planetary, and Space Sciences 101 or C113 may be substituted for 1).

Required Upper Division Courses (22 units minimum): (1) Education 127, Science Education 100SL, 2 at least one and no more than two courses selected from Chemistry and Biochemistry 192A, 192B, Civil and Environmental Engineering 192, Life Sciences 192A, 192B, Physics 192, Physiological Science 192, and 5 at least one and no more than two courses selected from Education M102, M103, M108, C125, 130, 132, 133, 134, 138, M182A/ M194A, M182A/M194A.

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 10SL, 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. Successful completion of the minor is indicated on the transcript and diploma.

Science Education Lower Division Courses

1SL. Classroom Practices in Elementary School Science. (2) Formerly numbered Life Sciences 71SL) Seminar, 90 minutes; fieldwork, three hours per week for eight weeks. Introduction to prospective science teachers to field of elementary education and teaching. Note: Science Education 215 is designed for students who wish to teach as graduate students in their disciplines. The minor provides a background in teaching and learning science and the broad general science background included in California State subject matter matter credit requirements. Students must consult with the academic coordinator for the minor to plan a coherent program to complete both the minor and their major, prior to filling a petition to enter the minor.

Introduction to inquiry-based learning practices, national and California standards, reasoning and learning differences in children, and cognitive ability of elementary-age children as it relates to introduction of concepts, curriculum planning, classroom management, and learning assessment. P/NP grading.
Scope and Objectives

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 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.

The department offers two majors in Russian. 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 the undergraduate adviser as early as possible.

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. The major in Central and East European Languages and Cultures is designed to provide students with a mastery of two languages 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.

The graduate program provides advanced training in Slavic literatures and linguistics leading to the M.A. and Ph.D. 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.

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's 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.

The three majors offered in the department are designated capstone majors. Students majoring in Central and East European Languages and Cultures, Russian Language and Literature, and Russian Studies must complete a capstone seminar and present their final paper in the department's 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.

Central and East European Languages and Cultures B.A.

Capstone Major

Preparation for the Major

Required: Central and East European Studies 91 or Slavic 90.

Transfer Students

Transfer applicants to the Central and East European Languages and Cultures major with 90 or more units must complete the following introductory course prior to admission to UCLA: one culture, history, or civilization course on one or more European nations.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admBreadcrumb.htm for up-to-date information regarding transfer selection for admission.

The Major

Croatian 101A, 101B, 101C, or Ukrainian 101A, 101B, 101C; (4) 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 126, Czech 155, 187A through 187M, Ethnomusicology 161C, History 120A through 120D, Hungarian 187A through 187M, Polish 152A, 152B, 152C, 187A through 187M, Romanian 152, 187A through 187M, Russian 124G, Serbian/Croatian 187A through 187M, Slavic 125, Ukrainian 152, 187A through 187M; one of the three courses may be selected from Russian M118, 119, 120, 124C, 124D, 124N, 124T.

During their senior year, students must also take Slavic 191TA in which they complete a capstone senior thesis.

Students may petition to substitute courses after consulting with the undergraduate adviser.

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

**Russian Language and Literature B.A.**

**Capstone Major**

**Preparation for the Major**

*Required:* Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**Transfer Students**

Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissn_t.htm for up-to-date information regarding transfer selection for admission.

**The Major**


During their senior year, students must also take Slavic 191TA in which they complete a capstone senior thesis.

Students may petition to substitute courses after consulting with the undergraduate adviser.

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

**Honors Program**

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

**Admission**

The honors program is open to departmental 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. For application forms and further information, contact the departmental undergraduate adviser.

**Requirements**

The honors program is a three-semester sequence (Slavic 198A, 191H, 198B), taken in addition to requirements for the major, that culminates in the submission of a thesis. In most circumstances the courses are taken in the senior year (Fall, Winter, and Spring Quarters).

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, 191H, and 198B.

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, 191H, and 198B with a grade of A in each course.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

**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.

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 Humanities Building, (310) 825-3856.

**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-semester introductory and upper European language sequence to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, Serbian/Croatian 105A, 105B, 105C, 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 can 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 126, Czech 155, Ethnomusicology 161C, Gender Studies 185, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian 124G, Serbian/Croatian 154, Slavic 125, or Ukrainian 152; (3) 12 units of second-year or higher-level language courses to be selected from Czech 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108, M118, 122, 124C, 124D, 124G, C124N, 124P, 124T, M127, Slavic CM114.

During their senior year, students must also take Slavic 191TA in which they complete a capstone senior thesis.

Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.
With approval of the undergraduate adviser, other related upper division courses may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Language Minor**

To enter the Russian Language minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower Division Courses (9 to 17 units):** Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**Required Upper Division Courses (20 to 23 units):** Students select one of the following options: (1) Russian 101A, 101B, 101C and two additional Russian language or literature courses; (2) Russian 100A, 100B, 100C and two additional Russian language or literature courses; or (3) five Russian language and literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 130A, 130B, 130C, 140A through 140D, with a minimum of three courses in Russian language.

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. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Literature Minor**

To enter the Russian Literature minor, students must have an overall grade-point average of 2.0 or better.

**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.

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. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Studies Minor**

To enter the Russian Studies minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower Division Courses (9 to 17 units):** Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

**Required Upper Division Courses (20 units):** Five courses in Russia-related fields, with a minimum of three courses selected from History M127A through 127D, Honors Collegium 164, Political Science 128A, 128B, 156A.

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. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Slavic, East European, and Eurasian Languages and Cultures offers Master of Arts (M.A.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Slavic, East European, and Eurasian Languages and Cultures.

**Bulgarian**

**Upper Division Courses**

101A-101B-101C. Introduction to Bulgarian 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 waived with consent of instructor.

**Lower Division Course**

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours. Interdisciplinary course to introduce students to main themes and concepts of central and east European studies, including historical background, nation states and ethnic groups, languages spoken in area, and culture and politics in communist and post-communist periods: religion, literature, mass media, music, art, and cinema. P/NP or letter grading.

**Upper Division Courses**

126. Coldwar Central European Culture. (4) Lecture, three hours. Examination of coldwar Central European culture through prism of prose fiction, essays, and film from 1947 to 1992. 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.

191. Variable Topics Research Seminars: Central and East European Studies. (4) Seminar, three hours. Study and discussion of specialized issues and approaches in history, structure, and themes of one or more literary traditions of central and eastern Europe. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

**Czech**

**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 waived with consent of instructor. Beginning Czech language courses with strong cultural component. 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 waived with consent of instructor. 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. Enforced prerequisites: course 102C or 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 sequence or 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.

**Hungarian**

**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, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

121. Survey of Hungarian Language in Translation. (4) Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and contacts with other literatures. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Hungarian and/or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in 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.

Romanian

Lower Division Course

90. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical background. P/NP or letter grading.

Upper Division Courses

101A-101B-101C. Elementary Romanian. (5-5-5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Romanian language. P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (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. 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.

Russian

Lower Division Courses

1. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1 or Russian placement test. P/NP or letter grading.

2. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1 or Russian placement test. P/NP or letter grading.

3. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 2 or Russian placement test. P/NP or letter grading.

4. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 3 or Russian placement test. P/NP or letter grading.

5. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 4 or Russian placement test. P/NP or letter grading.

6. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 5 or Russian placement test. P/NP or letter grading.

10. Intensive Elementary Russian. (12) Lecture, 19 hours. Intensive basic course in Russian language equivalent to courses 1, 2, 3, P/NP or letter grading.

15A-15B. Accelerated Elementary Russian. (8-7) Recitation, five hours; laboratory, two hours. Material of first-year Russian course to be covered in two terms, with extensive use of language laboratory and the Russian Room. P/NP or letter grading.


25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. P/NP or letter grading.

25W. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Enforced prerequisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 25. Designed not for majors. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. Satisfies Writing II requirement. 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. History of Russian Cinema. (5) Lecture, three hours; discussion, one hour; film screening, three hours. Overview of Russian cinema from silent films of early 20th century to current developments, with focus on cinematic styles, genres, and directors. Particular attention to differences between visual and verbal storytelling. P/NP or letter grading.

32. Russia and Asia: Cultural Dialogues. (5) 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.

33. History of Russian Cinema. (5) 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.
**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, five hours. Enforced requisite: course 6 or Russian placement test. Course 101A or Russian placement test is enforced requisite to 101B; course 101B or Russian placement test is enforced requisite to 101C. Advanced grammar, reading, and conversation. P/NP or letter grading. 101A. Russian and West. 101B. Soviet. 101C. Third-Year Russian.

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 works of Russian film, drama, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Native Speakers. (4-4-4) Lecture, three hours. Course 103A is not 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, and history. 103B. Literature and Film. Film adaptations of Russian literature. Readings and screenings. 103C. Special Topics.

107A-107B-107C. Russian for Social and Cultural Studies. (4-4-4) Lecture, three hours. Recommended preparation: third-year Russian. Lectures and readings in Russian. Exploration of texts and media in social sciences and culture, with emphasis on press, television, and Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.


M118. History of Russia, Origins to Rise of Muscovy. (4) (Same as History M127A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan Russia and its culture, Appanage principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

119. Golden Age and Great Realists. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of 18th-century 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 Pop Culture. (5) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Overview of Russian popular culture today, with examination of status of Russia's classically tradi- tions for the arts in 21st-century Russia. Death of one tradition and attempts at cre- ation of another lead away from written word into neighboring forms of expression, primarily visual. Consideration of field have impact on cinema, television, animation, music videos, and In- ternet. Letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey in which current cultural and ecological issues are situated in their geographical and historical back- ground, including analysis of Siberian human geog- raphy before first contact with European colonizers and development of modes of interaction among dif- ferent cultures. Weekly discussions focus on varied approaches to writing addressing class topics. Five short papers required. Satisfies Writing II requirement. Letter grading.


124D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in En- glish. In-depth readings of selected works such as Crime and Punishment, Notes from the Under- ground, and The Brothers Karamazov. P/NP or letter grading.


124P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in En- glish. Major works in all genres, including lyric poetry, narrative poems, plays, prose fiction, and selected letters. P/NP or letter grading.

124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in En- glish. Early and late stories and novellas, excerpts from the diaries and one major novel such as War and Peace or Anna Karenina. P/NP or letter grading.


126. Survey of Russian Drama. (4) Lecture, three hours. Lectures and readings in English. Introduction to representative selection of most important dra- matic works in Russian literary tradition, including works from the late 18th-19th, Realist, and futurist traditions. P/NP or letter grading.

M127. Women in Russian Literature. (4) (Same as Gender Studies M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introactive tradition of women's writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradi- tion as compared with those found in works of con- temporary women. Letter grading.


129. Russian Film and Music Video. (5) Lecture, three hours; discussion, one hour. Designed for juniors/se- niors. Lectures and readings in English. Humanities have recently passed through so-called visual turn: current emphasis on the visual in film and movies, but not been reconsidered in light of society's increasingly vi- sual workings. New attitude toward our own changing culture (i.e., toward its future) has equal value if ap- plied retrospectively to earlier eras. P/NP or letter grading.

130A-130B-130C. Russian Poetry. (4-4-4) Lecture, three hours. Preparation: third-year Russian 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, cultural subtexts, rhetoric, and form in interpreting poetic texts. 130B. Poetry of Russian Neoclassicism, Romanticism, and Realism. Major works of late 18th and 19th centuries in their historical and cultural contexts. 130C. Russian Poetry in the 20th Century. Major poetic schools from early modernism (symbolism, futurism, acmeism) to con- temporary avant-garde.

131. History of Russian Cinema. (4) Lecture, three hours. Preparation: overview of most popular art form in world's largest nation to show how cinema struggled under incipient capitalism in Russia, how moviemaking on other side of world developed from path marked out by Hollywood and London, how films operate as form of nationwide persuasion, relationship between word and image in those acts of persuasion, how even feminist and dogma canary events of audi- ence desire(s), different forms of social existence as refuge from both capitalism and communism, and what values of world's biggest country are. Role of language in self-definition, is selfhood verbal or visual matter? P/NP or letter grading.

M132. Comparative Media Studies. (4) (Same as Comparative Literature M132.) Lecture, three hours. History, form, and function of various media. Comparison of political and cultural influences of Eastern Europe, comparative investigation of media technologies, today's burgeoning markets, and yes- terday's tragic abuses. Development of media format(s) and content across various times, places, and cul- tures, with special attention to Slavic phenomena. Letter grading.

140A-140D. Russian Prose Fiction. (4-4) (4) Lecture, three hours. Preparation: third-year Russian recom- mended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. P/NP or letter grading. 140A. Introduction to Analysis of Russian Narrative Prose. Close analysis of a wide range of works. P/NP or letter grading.


C170. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in Russian. May be repeated for credit with topics and/or instructor change. P/NP or letter grading. 187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Enforced re- quisite: course 102C or Russian placement test. Tuto- rial and guided independent study of advanced Rus- sian: advanced conversation, vocabulary, com- position, development, and grammar topics. P/NP or letter grading.
Graduate Courses

201A-201B-201C. Russian: Vocabulary, Pronunciation, Style. (4-4-4) Lecture, three hours. Requisites: course 102C. Conducted in Russian. Reading and analysis of texts with focus on vocabulary, pronunciation, and style, respectively, in three consecutive terms. S/U or letter grading.


211A. Literature of Medieval Rus’. (4) Lecture, three hours. Required for M.A. (literature). Survey of the literature from its beginning through the Kievan and Muscovite periods up to the end of the 17th century.


212A-212B. 19th-Century Russian Literature. (4-4) Lecture, three hours. S/U or letter grading:


212B. Age of Realism. Lecture, three hours. Required for M.A. (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoevsky, moving to Turgenev, Ostrovsky, Dostoevsky, and Saltykov-Shchedrin, and concluding with works of the presymbolist period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature, 1890 to 1929. (4) Lecture, three hours. Requisites for M.A. (literature). Lectures and readings in major literary trends of modernist period, such as decadence, symbolism, futurism, acmeism, and ornamental school. Analysis of representative works by Blok, Bely, Khlebnikov, Pasternak, Platonov, and others. S/U or letter grading.


Upper Division Courses

101A-101B-101C. Elementary Serbian/Croatian. (5-5-5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Serbian/Croatian. P/N or letter grading.

102A-102B-102C. Advanced Serbian/Croatian. (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/N or letter grading.


154. South Slavic Languages. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/N or letter grading.

167A. Advanced Tutorial Instruction in Serbian/ Croatian. (2) Tutorial, one hour laboratory, one hour. Enforced requisite: course 102C or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

167B-187M. Advanced Tutorial Instruction in Ser- bian/Croatian. (2 each) Tutorial, one hour, laboratory, one hour. Prerequisite: successful in previous Serbian or Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/N or letter grading.

CM114. Teaching and Learning of Heritage Lan- guages. (4) (Same as Applied Linguistics CM128) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) and heritage language (HL) instruction. Reading and discussion on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of 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 interviews as a framework for instructional design, and optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM214. P/N or letter grading.

125. Interwar Central European Prose. (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representatives of the

Slavic

Lower Division Courses

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, M20, Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of cognitive means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium B.C. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semantic language representation. Origins and development of early writing systems. How Greco-Roman alphabet arose in 1st millennium B.C. and how it compares to other modern writing systems. P/N or letter grading.

M40. Christianities East and West. (5) (Formerly numbered 40.) (Same as Religion M40) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern and Oriental Orthodoxy, Roman Catholicism, and Protestantism, contrasting how history, dogma, culture, and community structures develop in those three traditions. P/N or letter grading.

87. Languages of Los Angeles. (5) Lecture, three hours; discussion, one hour. Comprehensive interdisciplinary investigation of Los Angeles as multilingual and multicultural metropolis. Review and analysis of features of major linguistic communities in Los Angeles area (Armenian, Cantonese, Japanese, Korean, Mandarin, Russian, Spanish, and others), with particular attention to social and cultural factors that play role in maintenance of language used in any given ethnic group. Familiarization with discipline and methodology of urban linguistics as well as geographical studies and as tool for investigating growing linguistic and cultural diversity of America’s large cities. P/N or letter grading.

90. Introduction to Slavic Civilization. (5) Lecture, three hours; discussion, one hour. Introductory survey of social and cultural institutions of Slavic peoples and their historical background. P/N or letter grading.

Upper Division Courses

CM114. Teaching and Learning of Heritage Lan- guages. (4) (Same as Applied Linguistics CM128) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) and heritage language (HL) instruction. Reading and discussion on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of 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 interviews as a framework for instructional design, and optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM214. P/N or letter grading.

125. Interwar Central European Prose. (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representatives of the
1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/NP or letter grading.

1914A. Senior Honors Thesis in Slavic Languages and Literatures. (4) Seminar, three hours. Limited to senior departmental majors. Planning and development of senior honors capstone thesis. Introduction to research methods and presentation skills; use of student target language for research required. Verbal and written presentations required. P/NP or letter grading.

191TA. Senior Capstone Thesis in Slavic Languages and Literatures. (4) 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. P/NP or 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, on 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 Slavic Languages and Literatures. (4-4) Tutorial, three hours. Course 198A is requisite to 198B. Limited to senior departmental honors program students. Development and completion of honors thesis under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research in Slavic Languages and Literatures. (2 to 6) 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 M.A. (literature). Designed to prepare incoming graduate students for scholarly work by introducing them to resources (departmental, intramural, and extramural), methodologies, and techniques for analysis of literary materials and cultural studies. S/U grading.


201. Introduction to Old Church Slavic. (4) Lecture, three hours. Required for M.A. (linguistics, literature). Introduction to phonology and grammar; readings.

202. Introduction to Comparative Slavic Linguistics. (4) Lecture, three hours. Required. Course 201. Required for M.A. (linguistics). Introduction to comparative phonology and grammar of Slavic languages. CM214, Teaching and Learning of Heritage Languages. (4) (Same as Applied Linguistics CM228). 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 issues of HLLs and HLs, linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructional aspects of heritage language studies; 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 CM214, 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. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and transliteration systems; acquisitions and provision of SLA and HLSA library materials; Slavic and East European scholarship in the West; relevant reference sources, archival resources, and research methods; survey of online databases; compilation of bibliographies. S/U grading.

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 Ph.D. (literature). May be repeated for credit with consent of instructor and graduate advisor. 230A. Middle Ages through Baroque; 230B. Classicism to Romanticism; 230C. Realism to Modernism.


261. Seminar: Slavic Literatures. (4) Seminar, three hours. Selected topics in comparative and historical Slavic literatures. May be repeated for credit with consent of instructor and graduate advisor.

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 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 M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Ukrainian

Upper Division Courses

101A-101B-101C. Elementary Ukrainian. (5-5-5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Ukrainian language. P/NP or letter grading.

102A-102B-102C. Advanced Ukrainian. (4-4-4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B; course 102B 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 Kotyryakovskiy, Shevchenko, Franko, Ukrainka, and Tychyna.

187A. Advanced Tutorial Instruction in Ukrainian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Ukrainian and/or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. 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.
Social Thought Minor

The Social Thought minor is limited to students who formally apply and are admitted. To apply, students must submit an application, a personal statement supporting their interest in pursuing the minor, a letter of recommendation from a faculty mentor, and a transcript to the College Academic Counseling Office, A316 Murphy Hall.

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: General Education Clusters 21A and 21B, OR two courses from German 56, Honors Collegium 20, 21W, 55, 57, 83W, Philosophy 6, Political Science 10, Sociology 10.


Required Research Colloquium and Senior Thesis (12 units): Students must also complete Social Thought I, II. (4-4)

199A-199B. Directed Research or Senior Thesis in Social Thought minor. Designed to bring together students in Social Thought minor. Supervised individually by one supervising faculty member. Course 190A: for 199A; for 199B: course 199B. Limited to juniors/seniors. Required of students in Social Thought minor. Led by one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

199A-199B. Directed Research or Senior Thesis in Social Thought I, II, (2-2) Seminar, two hours. Corequisite for course 190A: course 199A; for 190B: course 199B. Limited to juniors/seniors. Required of students in Social Thought minor. Designed to bring together students undertaking supervised senior thesis work in seminar setting with one or more faculty members to discuss their work or related work in Social Thought minor. Led by one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

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 the University 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 healthcare, better job training, and better economic futures.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasasa /library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees


Social Welfare

Upper Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of major U.S. social welfare programs and policies guiding them, with emphasis on analysis of policy developments/issues related to provision of social welfare services. Study of historical and current responses of profession to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Required 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. Biocultural: Social and Cultural 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 about concepts of 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 via casework process. Students practice these skills in written, role-play, small group, and video role-play exercises. P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Gender Studies M104C and Gerontology M104C. Lecture, four hours. Exploration of connection between aging and diversity and issues related to diversification of population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Gerontology M104D. Lecture, four hours. Examination of theoretical models and concepts of policy process, with an emphasis on policy analysis. 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 Gerontology M104E. Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontology. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, nine hours. Theoretical historical overview of American social policy dealing with three societal problems: poverty, sickness, and joblessness. Programs developed by governments to ameliorate these problems have been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Collectively these programs are known as "the welfare state"; examination of origins of the U.S. welfare state, its development over time, and features that make it distinctive as compared to welfare states in other nations. Letter grading.

106. Research Seminar and Field Observation: Social Welfare Policy and Administration. (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 work at specific agency where they combine observation of agency functions with participation in specific agency tasks and roles under structural supervision. Function as an agency mentor and a UCLA faculty member. P/NP or letter grading.

M108. Biomedical, Social, and Policy Frontiers in Human Aging. (5) Same as Gerontology M108.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variety of recent research fronts. 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 biological and psychological factors interact and change, and life course perspective that is distinguished by analytical framework it provides for understanding interplay between human lives and changing social structures. Students to analyze how social events, successes, and losses at one stage of life can have important effects later in life. Focus on individuals as they age and a one particular sociocultural context. Letter grading.

M130A-130B. Community Research and Services Seminars. (4-4) Lecture, three hours; service learning, four hours; outside study, five hours. Course 130A is limited to juniors/seniors. Overview of community structures and functions. Exploration of community Mobilizing for addressing and responding to community needs. Transformation of public child welfare system into child protection system. Impact of welfare reform on child policies and programs in the U.S. Examination of social policies and programs that impact children in the U.S. Examination of comparative policies in other countries. P/NP or letter grading.

162. Health Policy and Services. (4) Seminar, three hours. Limited to juniors/seniors. Contemporary issues in healthcare financing and delivery and historical perspective on the government role in healthcare and ways controversy about this role continues to shape and constrain public policy in health. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access, and cost for diverse vulnerable populations. Various public and private approaches to healthcare reform and ways of thinking about their predicted impact, cost, and political feasibility. Issues in 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 among parents, communities, and government. Examination of research related to patterns of drug use and related harm (such as crime and mental health disorders) and effectiveness of interventions to reduce these problems. Through review of evidence-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 use, form, 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. Examination of various approaches to HIV prevention, drawing on infectious disease paradigms from public health and theories of behavior change from fields of psychology, sociology, and communications. Sexual behavior and injection drug use, existing and promising technologies to reduce HIV transmission, and fiscal, cultural, ethical, and moral dilemmas in allocation of prevention resources. P/NP or letter grading.

M165. Disability Policy and Services in Contemporary America. (4) Same as Sociology M130 and Gerontology M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How has U.S. responded over time to various needs and aspirations of people with disabilities, young and old? What demands have been made over time by disability advocates? How has government addressed demands of advocates for various disability populations? What do we know about external forces and programs are responsive to people in need? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

181. Nonprofit Sector, State and Civil Society. (4) Lecture, three hours; outside study, nine hours. Use of economic perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries.

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 investiga-
tion set by individual instructor. May be repeated for
credit with topic change. Letter grading.
194. Internship Seminar: Social Welfare. (1) Seminar,
one hour; outside study, three hours. Corequisite: course 195. Not open to freshmen. Introduction to topics relevant to psychosocial determinants of children’s health and development. Review of theoretical issues and research evidence that contribute to unified theory of human development. Letter grading.
195. Community Internships in Social Welfare. (2) 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
201A-201B-201C. Dynamics of Human Behavior. (3-3-3) Lecture, three hours. Biopsychosocial factors associated with individual and group behavior and development as applicable in social functioning of individuals and groups. Emphasis on theoretical issues and research evidence that contribute to unified theory of human development. Letter grading.
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 those problems relate to role and function of social workers. S/U or letter grading.
203A-203B-203C. Integrative Seminars. (2-2-2) Seminar, two 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 populations-at-risk requiring further exploration. Letter grading.
205B. Social Policy and Organizational Analysis. (2-2) Lecture, two hours; discussion, one hour. Overview of history of social work profession and how social justice and social welfare policies are generated. Emphasis on social policy and organizational analysis. S/U or letter grading.
211B. Social Welfare Policy and Services II. (4) Lecture, three hours; outside study, nine hours. Understanding of significance of economic and political variables in the development of social welfare policies. S/U or letter grading.
212B. Social Welfare Policy and Services II. (4) Lecture, two hours; discussion, one hour. Overview of history of social work profession and how social justice and social welfare policies are generated. Emphasis on social policy and organizational analysis. S/U or letter grading.
215B. Social Welfare Policy and Services II. (4) Lecture, two hours; discussion, one hour. Overview of history of social work profession and how social justice and social welfare policies are generated. Emphasis on social policy and organizational analysis. S/U or letter grading.
222A. History. Five weeks in Fall Quarter. 222B. Policy. Five weeks in Spring Quarter. Requisite: course 222A.
223. Seminar: Social Work Profession. (2) Seminar, two hours. Nature and role of social work in contemporary society; relationships with other professions; probable future trends in profession; social work ethics, professional organizations, certification licensing; professional responsibility for continued self-criticism and improvement of profession. S/U or grading.
225B. Implementation and Evaluation. (4) Seminar, three hours. Design, implementation, and evaluation of welfare programs. Emphasis will be on developing and evaluating social welfare programs, particularly those pertaining to provision, organization, and delivery of social services, including assessing outcomes for effectiveness, and use of quantitative methods in policy analysis. Letter grading.
229A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Limited to Ph.D. students. Exploration of one problem for study—its history, current state of knowledge about why problems exist, and what might be done about it. Survey of several problems and alternative ways in which problems have been conceptualized and studied to understand how scholars use theory and empirical evidence to advance what is known, what is yet unknown, where there are important gaps in understanding particular problems, and what might be done to solve them. Letter grading.
229B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 229A. Limited to Ph.D. students. Continued study of one social welfare research problem, moving from understanding of evolution and context of general problem to more detailed and specific study. Emphasis on research literature on specific research problem, question to begin student understanding of existing knowledge on topic and begin to identify one or more critical gaps in knowledge to explore. Discussion of different methods of summarizing research literature, identifying seminal studies, and interpreting contradictory findings. Regular meetings to discuss ongoing work and to encourage students to review their work with their faculty advisers and/or other mentors with expertise in their problem areas. Letter grading.
229C. Craft of Social Welfare Scholarship III. (2) Lecture, 90 minutes; outside study, four and one half hours. Enforced requisite: course 229B. Limited to Ph.D. students. Focus on craft of scholarly writing for publication to help students develop effective narrative frame for presentation, make choices about extent of detail and shape of literature review, and address emerging phenomenon and conclusion. Consideration of elements of effective professional writing. Letter grading.
231A-231B-231C. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Advanced theory and empirical evidence to advance what is known, what is yet unknown, where there are important gaps in understanding particular problems, and what might be done to solve them. Letter grading.
231E. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups V. (4) Lecture, three hours; outside study, nine hours. Integration of theory and practice as they pertain to role of social workers in school settings. Biopsychosocial/ecological assessment of students (including, but not limited to, differences due to ethnic and/or cultural diversity and to students who are learning handicapped), ecological intervention strategies, collaboration within multidisciplinary team, and role of liaison between pupils, family, school, and community. Use of discussion, videos, current literature, and case presentation to explore impact of school social workers as change agents. S/U or letter grading.
231F. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups VI. (4) Lecture, three hours; outside study, nine hours. Corequisites: required social work practicum. Advanced-level, critical analysis of key contributors, essential concepts, core theories, current controversies, and recent research findings in contemporary social welfare therapy; case conceptualization from cognitive-behavioral perspective; specific cognitive and behavioral assessment methods and intervention techniques and their typical applications; contextual considerations, including human diversity and other sociocultural and developmental factors, in arriving at case conceptualizations and treatment plans. S/U or letter grading.
welfare practice. Clinical case management explored as intervention in its own right in addition to its use as mechanism for linking children and families to other social service settings, and forms of intervention. Interpretation of current public child welfare events, trends, terms, and laws and their relationship to direct practice issues. S/U or letter grading.

231K. Advanced Theory of Social Welfare Practice with Individuals, Families, and Groups: Mental Health. (4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Development of skills for working with clients in mental health settings. Emphasis on evidence-based approaches to providing services to pervasive and persistent mentally ill. Exploration of recovery-oriented approaches that are consistent with knowledge and values of social work practice. Exposure to range of interventions applicable to most common mental health problems and barriers to service delivery for this vulnerable population, such as stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.


241E. Social Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. The analysis of social policy and the political process; the role of social workers in policy-making. Emphasis on national and international social policy issues. S/U or letter grading.

241F. Strategic Planning for Public and Nonprofit Organizations. (4) Same as Public Policy M228 and Urban Planning M228.) Lecture, three hours; outside study, nine hours. Designed for students with interest in community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emphasis on planning, research, and social action planning within framework of social change theory. Letter grading.


249A-249B-249C. Foundations of Scientific Inquiry I-III. (4-4-4) Lecture, three hours; outside study, nine hours. Limited to Ph.D. students. Introduction to underlying logic(s) of scientific inquiry to provide students with building blocks for independent scholarship. Letter grading. 249A. Experimental and quasi-experimental approaches in intervention research, ways of enhancing internal, external, and statistical conclusion validity, and inferring causality. 249B. Encouraged requisite: course 249A. Survey design, sampling strategies and external and construct validity, methods of data collection, and reliability as measurement issue. 249C. Encouraged requisite: course 249B. Introduction to array of qualitative research strategies.

251A. Advanced Theory of Social Welfare Practice: Domestic and Sexual Violence. (4) Lecture, three hours. Designed for second-year M.S.W. students in macro and clinical social work. One 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, reviewing various reasons against men and 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.


258. Critical Problems in Social Welfare. (2) Discussion, two hours. Taught for Ph.D. students. Current problems in field of social welfare. Specific topics vary, depending on research and educational interests and needs of class. May be repeated for credit. S/U grading.

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259. Variable Topics in Statistics in Social Sciences. (4) Lecture, three hours. Limited to graduate students. Designed to provide in-depth understanding of particular topics. Emphasis on applied statistics/measurement to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.

280A-280D. Knowledge Acquisition, Evidence-Based Practice, and Research in Social Welfare. (1-3) Limited to first-year M.S.W. students. Designed to stimulate student thinking around importance and relevance of evidence-based practice. Three lecture hours. Three units. Lecture, three hours. Five-week course in Fall Quarter. Introduction to foundations of critical thinking to develop student capacity to examine ideas, beliefs, and knowledge. Examination of variable meanings of research and introduction to some basic components of scientific method. Critical examination of utility and role systematic literature review plays in building knowledge/evidence. In Progress grading (credit to be given only on completion of course 280B). 280B. Seminar, three hours. Five-week course in Spring Quarter. Examination of role of evidence-based practice in social work, its matrix and meanings. Exposure to utility of single case designs and role of program evaluation and social work practice. S/U or letter grading.

281A-281B-281C. Advanced Social Welfare Research. (2-2-2) Lecture, two hours. Individual or group research projects requiring intensive examination and analysis of social problem area, directed toward development of research knowledge and techniques for social work practice. In Progress (281A, 281B) and S/U or letter (281C) grading.

285A-285B-285C. Research in Social Welfare. (4-4-4) Discussion, three hours. Review of areas of research concern to social workers, with special attention to design, instrument construction, data collection, data processing, data reduction, analysis, and interpretation. Design studies included survey, panel, experimental observation and theory development research. S/U or letter 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 designs, 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, design of research instruments, analysis of 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.


285H. Program Evaluation Research. (4) Lecture, three hours. Discussion of differences and similarities between evaluation research and other research, alternative evaluation program evaluation methods, roles and limitations of evaluation research, development of questions and objectives for feasible program evaluation research. Letter grading.


286A. Survey of Research Methods. (4) Seminar, three hours. Basic understanding of research methods. Content includes theoretical and conceptual approaches to research proposal 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 proposal formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286C. Research Internship. (Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by students and carried out under the supervision of students to allow students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

290A-290B-290C. Seminars: Social Work. (4-4-4) Seminar, three hours; outside study, nine hours. Series of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new patterns of intervention based on recent demonstrations and research. S/U or letter grading.

290I. Children with Special Healthcare Needs: Systems Perspective. (4) As Community Health Sciences M420 and Health Policy M420. Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of children, infants, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

290J. Child Welfare Policy. (4) 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.

290K. Mental Health Policy. (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 mental illness and services they are provided. S/U or letter grading.


290M. Health Policy. (4) As Public Policy M215.) Lecture, three hours. Introduction to contemporary issues in health policy 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.

290N. Public Policy for Children and Youth. (4) As Public Policy M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction and communality, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

290P. Aging Policy, Elderly and Families. (4) (Same as Public Policy M261.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical and conceptual policy issues, and policy implications of aging policy. Analysis of decision-making processes that affect social policy. Description of historical development of contemporary policy. Exploration of current proposals and issues. Letter grading.

290Q. Social Welfare Policy in Asian American Communities. (4) (Same as Asian American Studies M246.) Lecture, three hours. Development of social welfare policy in Asian American communities. Introduction to major social welfare policies and programs in the U.S. and impact on Asian American communities. Examination of development, processes of implementation, evaluation, and strategies to effect policy. S/U or letter grading.

290R. Law and Poor. (4) (Same as Public Policy M299 and Urban Planning M248.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Critical examination of role of evidence in shaping policy. S/U or letter grading.

290S. Nonprofit Sector, State and Civil Society. (4) (Same as Public Policy M227 and Urban Planning M276.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

290T. Social Work and Juvenile Justice System. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of juvenile justice system in the U.S. and issues that have shaped current-day practice. Role of social workers in system to be there throughout course. Letter grading.

290U. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Public Policy M243 and Urban Planning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of governmental 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.

290V. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Urban Planning M286.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from finance to crisis management to identifying that nonprofit managers typically face. Letter grading.

290W. International Social Welfare. (4) Lecture, three hours; outside study, nine hours. Intended for graduate students interested in pursuing analysis of key international social welfare issues. Course is approached from perspective of globalization of social, economic, and political activities. Problems of global poverty, social injustice and inequality, and issues of race, ethnicity, and cultural diversity, with emphasis on multifactored contributions of social work, social services, and social welfare and international social development within rich and poor countries. Acquisition of tools to analyze international social welfare issues, as well as analytical skills to address and debate complex international issues. S/U or letter grading.
SOCIETY AND GENETICS

See Institute for Society and Genetics

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Meredith Phillips, Ph.D.
Gabriel Rossman, Ph.D.
Tanya J. Stivers, Ph.D.
Edward T. Walker, Ph.D.

Assistant Professors

Stefan Bargheer, Ph.D.
Lauren M. Duquette-Ruy, Ph.D.
Jacob G. Foster, Ph.D.
Ka-Yuet Liu, Ph.D.

Scope and Objectives

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, analyze census 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 capacity 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.

In addition to contributing to a liberal arts education, the Sociology major prepares individuals for a broad range of career options and graduate and professional studies. The analytic perspectives and skills gained in the major are a foundation for careers in law, social welfare, urban planning, business, education, and public health. The major also provides a foundation for students intending to pursue graduate work in sociology and related fields. Employment opportunities available to the graduate with a Bachelor of Arts degree in Sociology also include work in community service organizations, public health agencies, government service, and human resources.

The Department of Sociology faculty includes internationally renowned scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teachers—five of whom have won Distinguished Teaching Awards—and excellent trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment.

The Ph.D. in Sociology usually leads to a career in research and/or teaching. Although most sociologists are employed by universities, there are increasing career opportunities in government and other nonuniversity research centers.

Undergraduate Study

Sociology B.A.

Sociology Premajor

Only students with less than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology premajor once they complete either Sociology 1 or 20 with a grade of C or better.

Preparation for the Major

Required: Sociology 1, 20, and one course from Political Science 6, Statistics 10, or 13.

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.

Freshman Students

Students must petition to declare the Sociology major. If Sociology 101 or 102 has already
Majors in Sociology may select a specialization completed the required theory course. Applicants are required to take courses 191H, after acceptance into the honors program, students must complete all preparation for the honors program. Students who successfully complete the honors program may include politics of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.


Upper Division Courses

101. Development of Sociological Theory. (5) Lecture, three hours; discussion, one hour. Comparative survey of basic concepts of both basic and research methods. Satisfies Writing II requirement.

106A. Field Research Methods I. (4) 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 interview notes should be turned in. Letter grading.

106B. Field Research Methods II. (4) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from 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. Sociohistorical Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

113. Statistical and Computer Methods for Social Research. (4) Lecture, three hours; discussion, two hours; laboratory, one hour. Requisite: course 102. Introduction to computer and research methods, computer simulations, and research project. P/NP or letter grading.

114. Introduction to Mathematical Sociology. (4) Lecture, three hours; laboratory, one hour. Requisites: Mathematics 2, 3A (course whose content includes introductions to probability and statistics, and differential and integral calculus). Statistics 10. Mathematical treatment of several sociological phenomena, such as occupational mobility, population growth, organizational structure, and friendship patterns, each covered in some detail, including initial development and subsequent evaluation and modification (emphasizing both deductive and computational aspects of mathematics). Letter grading.

115. Environmental Sociology. (4) Same as Environmental M115. Lecture, three hours; laboratory, 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.

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.

M118. Simulating Society: Exploring Artificial Communities. (5) (Same as Honors Collegium M114B.) 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 diverse behaviors and cultural forms of primate cousins, with special focus on baboons, chimpanzees, and gorillas. Examination of primate societies, social organization, competition, demography and kinship, politics, communication, and interactions within and between groups. Implications for our lives as human primates. P/NP or letter grading.

M124A-M124B. Conversational Structures I, II, (4-5) (Same as Communication Studies M144A-M144B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. M124A. Introduction to some structures that are employed in organization of conversational interaction, such as turn-taking organization, organization of repair, and some basic sequence structures with limited expansions. M124B. Requisite: course M124A. Examines in greater depth the more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

CM150. Law and Social Institutions. (4) (Same as Communication Studies M125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course C258. P/NP or letter grading.

126. Study of Norms. (4) Lecture, three hours; discussion, one hour. Examination of norms of norms, of formal and informal, 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 sociological 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.

128. Sociology of Emotions. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Sociological theories and explanations of social conditions shaping and producing emotional experiences; effects of individual expression of emotions on social conditions; relations between thought, sensations, and emotions; self and emotion; social-emotional interactions. 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 personal identity. P/NP or letter grading.

132. Social Psychology: Sociological Approaches. (4) Lecture, three hours; discussion, one hour. Survey of contributions of sociologists to theory and research in social psychology, including theories of social control, conformity and deviation, reference groups, and interaction processes. P/NP or letter grading.

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 transforming organizations. 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.

138. Death, Suicide, and Trauma. (4) (Same as Psychology M126.) Lecture, three hours; discussion, one hour. Sociology of 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 death are often disguised, sometimes as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, sexual orientation, and class. Analysis of strengths of this sociological argument and evaluation of explanatory potential of theories that attempt to make sense of violent death, particularly personal attention to forensic and medicolegal system to determine suicide and solve homicides. Review of historic and contemporary research on suicide and research on homicide and the factors that support cross-border mobility, and connections of homicide to social problems at top of bilateral agenda. Examina- tion 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 binational, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (5) Seminar, 20 hours. Mexico-U.S. migration is largest and oldest continuous international population flow of contemporary world. In recent decades, propelled by swift economic transformations, rural and urban, on both sides of Mexico border, migrants have joined this migratory flow, settling well beyond southwestern region and into far-reaching areas of U.S. interior. Migration is binding U.S. and Mexico stronger than ever, putting this complex and multilayered phenomena at top of bilateral agenda. Examina- tion of sociological dynamics of international migration, including demographic, political, and economic dynamics of migration, economic and social infrastructures that support cross-border mobility, and connections of migration with binational, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141B. Migration and Labor in Mexico-U.S. Context: Research Seminar. (5) Seminar, 10 hours; fieldwork, 10 hours. Development of qualitative micro-study and research paper on migration and labor in Mexico-U.S. context. Research topic of interest to be selected so students become familiar with commonly employed qualitative methods of research. Designed to help students understand basics of methodological reasoning, how to formulate research questions, and how to come to conclusions. Research paper and issue related to migration and labor. How to make ethical de- cisions about conducting research. Development of student abilities as researchers by conducting secondary analyses and presenting in final form research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.


147A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Sociology 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.

154. Sociology of Mental Illness. (4) (Formerly numbered 148.) (Same as Disability Studies M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psychological models of mental illness. Study of social processes involved in production, recognition, labeling, and treatment of mental illness. P/NP or letter grading.

149. Youth, Trouble, and Juvenile Justice. (4) Lecture, three hours; discussion, one hour. Examination of processes through which youth become involved in juvenile justice system. Analysis of this system as people-processing and people-changing institution as context for considering critical issues in juvenile justice. P/NP or letter grading.

150. Sociology of Aging. (4) (Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes concerned with aging, experience, and response to aging in contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and so- cial worlds of aged; caregiving relations and institu- tions; professions concerned with aged and aging. Letter grading.

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 experi- ence on ethnic-racial groups that migrated voluntarily to this country, with emphasis on immediate post-migration 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 as- similation of Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cul- tural consequences of immigration. P/NP or letter grading.

153. Chinese Immigration. (4) (Same as Asian American Studies M153C.) Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international con- text, organization, and institutions of Chinese American and its relations with social environment. 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 life of nations other than the U.S. P/NP or letter grading.

M155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155.) Lecture; three hours; discussion; one hour. Taught in Spanish. Emphasis on history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in larger social structure and on comparisons of American and other Latinx populations. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion; one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic and gender 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, brought by waves of mass migration in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure in terms of evaluative differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, consequences of stratification, and problems of methodology. P/NP or letter grading.

158. Urban Sociology. (4) Lecture, three hours; discussion, one hour. Description and analysis of urbanization and urbanism in the U.S. and world. P/NP or letter grading.

M161. Comparative American Indian Societies. (4) (Same as American Indian Studies M161.) Lecture, three hours. Recent and historical comparative study of indigenous societies of North and South America. P/NP or letter grading.

M162. Sociology of Gender. (5) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 1 or Gender Studies 10. Recent and historical social construction of gender and population, reproductive issues, politicization of mothers, motherhood, and mothering, sexuality, and new reproductive technologies. Letter grading.

M164. Politics of Reproduction. (4) (Same as Gender Studies M164.) Lecture, three hours; discussion, one hour. Title refers to intersection between politics and life cycle. Topics include social construction of gender and population, reproductive issues, politicization of mothers, motherhood, and mothering, sexuality, and new reproductive technologies. Letter grading.

M165. Sociology of Race and Labor. (4) (Same as African American and Chicano Studies M165.) Lecture and Work place Studies 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 circumstances under which workers and unions have excluded people of color from jobs and organizations; 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 social science methods (observation, interviewing, etc.), with comparison of preindustrial and industrialized societies, legalization of contemporary social control, participation's experiences of legal processes, lay perceptions of justice, sociological analysis of inequality, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Sociological topics may include law in preindustrial and industrialized societies, legalization of contemporary social control, participants' experiences of legal processes, lay perceptions of justice, sociological analysis of inequality, 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 interpersonal and organizational relationships that are involved in receipt and delivery of health services. P/NP or letter grading.

171. Occupations and Professions. (4) Lecture, three hours; discussion, one hour. Description and analysis of representative occupations and professions, with emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Description and analysis of entrepre neurial topics: special reference to historical situations, gins, ideology, international comparisons, women and ethnic minority participation, legal and illegal forms, public and private auspices. P/NP or letter grading.

173. Economy and Society. (4) Lecture, three hours; discussion, one hour. Sociology of economic life, with emphasis on principal economic institutions of the U.S. P/NP or letter grading.

M174. Sociology of Family. (Same as Gender Studies M174.) Lecture, three hours; discussion, one hour. Theory and methodology of family, its structure, and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

M175. Sociology of Education. (5) (Same as Education M150.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background affects educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic attainment, family, health, attitudes, and social participation. Emphasis on explicating policies to improve school quality and address socioeconomic inequalities. Letter grading.

M176. Sociology of Mass Communication. (4) (Same as Communication Studies M147.) 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.

M178. Sociology of Caribbean. (4) (Same as African American Studies M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

180A-180Z. Special Topics in Sociology. (4 each) Lecture; three hours; discussion, one hour. Limited to unoressigned topics. 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-181B. Sociology of Contemporary China. (4-4) (Formerly numbered 181.) Lecture; three hours; discussion, one hour. Designed for juniors/seniors. Each course may be taken independently for credit. P/NP or letter grading. 181A. Exploration of 20th-century changes in China, including end of dynasties, Republican era, Communist Revolution, and market reform. Topics include transformation of Chinese social structure and institutions and everyday practices. Survey of changes and analysis of forces shaping contemporary China and global impact and current implications. 181B. Survey of Chinese society from beginning of 20th century to present. Topics include social mobility and inequality, family and household, and population. Emphasis on changes post-Revolution and in present. Focus on economic and political change plus family organization. Contrasts and similarities between China and West, China's place in social sciences, and challenges due to social organization that originated from studying Western societies.

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 1. Survey of comparative and historical sociology. Various aspects of development of modern society, including development of nation-state, emergence of capitalism, industrialization, and population growth. Variation of economic and political change plus family organization. Contrasts and similarities between China and West, China's place in social sciences, and challenges due to social organization that originated from studying Western societies.

185. American Society. (4) Lecture, three hours; discussion, one hour. Social structure and social conflict in Latin America, with special attention to racial and class structures and dilemmas of economic and political development. Country and specific focus varies each term. P/NP or letter grading.

191A. Undergraduate Seminar: Self and Identity. (5) Seminar, three hours. Limited to junior/senior Sociology majors. Examined self and identity 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.


191C. Undergraduate Seminar: Money and Emotions. (5) Seminar, three hours. Limited to junior/se nior Sociology majors. Selected topics. Reading, discussion, and development of culminating project. Letter grading.

M191DC. CAPPP Washington, DC, Research Seminars. (8) (Same as Communication Studies M191DC, History M191DC, Psychology M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPPP Program students. Seminars for undergraduate students in Communication 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. Studies of various qualitative methods (observation, interviewing, etc.), with com-
imum of 16 units, but only 8 units may be applied toward major. Individual contract required; see under-graduate counselor. P/NP or 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 faculty members. S/U grading.

202A-202B. Theory and Research in Sociology. (4-4) Lecture, two hours; discussion, two hours. Required of first-year graduate sociology students. Examination of interrelations of theory, method, and substance as they relate to logical works, with requirements of both logical and skills-centered orientation. In Progress grading (credit to be given only on completion of course 212B).

210B. 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 proposal in style of American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, log-linear analysis, ordinary least squares regression, regression with interaction, robust regression, diagnostic procedures, and methods for handling complex sample survey designs. In Progress grading (credit to be given only on completion of course 212B).

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Design and interpretation of primarily nonexperimental quantitative data, with focus on sampling theory and methods, with emphasis on understanding key principles of data design. Preparation: S/U or letter grading.

M206. Understanding Fertility: Theories and Methods. (4) (Same as Community Health Sciences M222.) Lecture, three hours. Preparation: one formal or informal demographic course. Requisite: Biostatistics 100A. An introduction to demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population demography, demography of health, and social demography. Letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Preparation: 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; the proportional hazards/multilevel models; survival models; and event history models. Preparation: S/U or letter grading.

213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Economics M208.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to demographic analysis in the social sciences. Topics include the major demographic processes of population growth, stable populations, population projection, and demographic data sources. Letter grading.

213B. Applied Event History Analysis. (4) (Formerly numbered M213B.) Lecture, three hours. Preparation: exposure to binary response models. Preparation: 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; the proportional hazards/multilevel models; survival models; and event history models. Preparation: S/U or letter grading.

216A-216B. Survey Research Design. (4-4) Lecture, 90 minutes; discussion, 90 minutes. Preparation: course 210A. History of survey method; facet metatheory and concept formation; questionnaire and item design; scales, indices, typologies; data collection; planning and management; network, snowball, and experience sampling; multistage probability sampling, stratification and clustering. Students participate in survey research project. Letter grading.


217B-217C. Ethnographic Fieldwork. (4-4) Seminar, three hours. Recommended requisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, methods, and techniques for doing fieldwork, and ethical problems involved in such research. In Progress (217B) and letter (217C) grading.

220. Self and Society. (4) Lecture, three hours. Examination of social and cultural processes shaping definition and experience of the self, embodied interactional processes through which the self is constructed. From symbolic interactional formation and transformation of self during life course, and construction of collective identity. Letter grading.
public, Haiti, Mexico, modern China, modern Japan, Nazi Germany, Nicaragua, Rwanda, South Africa, Sudan, and U.S. S/U or letter grading.

M231. Gender: Constructing Black Womanhood and Black Manhood in Ameri- ca. (4) (Same as African American Studies M200G.) Seminar, four hours. Race, class, gender, and sexual identities, expression, identity, and experi- ence. They are not merely identities but structural loca- tions that are often taken for granted and rarely confront, 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 inter- actions for African Americans. Examination of race, class, gender, and sexual identities as individual aspects of social life. How race, class, gender, and sexual iden- tity shape societies and individual experiences in in- teraction with each other. How these inequities shape and are shaped by social institutions, including cultural institutions, economy, and family, within con- text of experiences of black women and black men in contemporary U.S. Letter grading.

232. Class, Politics, and Society. (4) Lecture, four hours. Introduction to and analysis of social class structure and political power. Issue of salience of class versus other identities such as gender, age, race, and nationalism. Examination of the “social stratification” tendencies of capi- talism. Letter grading.

233. Foundations of Political Sociology. (4) Lec- ture, three hours. Designed for graduate students. Survey of field of political sociology, oriented around critical themes in major theoretical traditions and con- temporary exemplars. Special attention to competing perspectives on power, theory of state, and relation- ship of class structure to politics, S/U or letter grading.

234. Sociology of Development. (4) Seminar, three hours; discussion, one hour. Readings and discussion of theoretical, historical, and specific issues in so- ciology of development (e.g., world system theory, developmental state, import substitution industrial- ization, export promotion industrialization, neoliberalism in Latin America, new approaches). S/U or letter grading.

235. Theories of Ethnicity. (4) Lecture, one hour; discussion, two hours. Designed for graduate stu- dents. Examination of variety of theoretical ap- proaches in understanding race and ethnicity in con- temporary society, with emphasis on the interrela- tions between ethnic identity, race, and social mobility. Letter grading.

M236B. (Formerly numbered 236E.) Lecture, three hours. S/U or letter grading.

236A-M236B-236C. International Migration. (4-4- 4) Lecture, three hours. S/U or letter grading.

236A. Economic Mobility. (4) Lecture, four hours. Comparative overview of key current theoretical debates in study of in- ternational migration, with focus on exploration of possibilities of comparative (historical and cross-na- tional) research program in field, including North Amer- ican, European, and other global experiences of im- migration. S/U or letter grading.

M236B. (Formerly numbered 236E.) (Same as Ge- ography M243.) Lecture, three hours. Further explora- tion of current theoretical debates in study of in- ternational migration, with focus on exploring both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to conduct research in field. S/U or letter grading.

236C. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral presen- tations, field study, circulation of completed or draft student papers. S/U or letter grading.


M238. Feminist Theory. (4) (Same as Gender Studies M238.) Seminar, three hours. Designed for graduate students. Analysis of current American femin- ists that are relevant to sociologists. Exploration of cri- tiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “antifeminist” femi- nists. Discussion of directions for future feminist so- ciology. Letter grading.

239A-239B. Social Stratification, Mobility, and In- equality. (4-4) Lecture, three hours. Enforced requi- site: course 210A. Course 239A is enforced corequisite to 239B. Introduction to literature on social strata- tion, mobility, and inequality in U.S. and abroad, with focus on concepts, data, methods, and facts about social structure, inter- generational transmission of socioeconomic status; effects of family, school, and labor market on socio- economic achievement, careers, and inequality; earn- ings, income, and welfare distribution; poverty; social mobility; socioeconomic factors and marriage; and ethnic stratification; and health disparities. In Progress (239A) and letter (239B) grading.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Course 241A is enforced corequisite to 241B. Course 241A is enforced corequisite to 239B. Introduction to literature on social strata- tion, mobility, and inequality in U.S. and abroad, with focus on concepts, data, methods, and facts about social structure, inter- generational transmission of socioeconomic status; effects of family, school, and labor market on socio- economic achievement, careers, and inequality; earn- ings, income, and welfare distribution; poverty; social mobility; socioeconomic factors and marriage; and ethnic stratification; and health disparities. In Progress (239A) and letter (239B) grading.

244A-244B-244C. Conversation Analysis I, II, III, (4- 6-6) Lecture, three hours; discussion, two hours. S/U or letter grading. 244A. Introduction to some struc- tures basic to organization of conversational interac- tion: turn-taking organization and sequence organiza- tion, their gendering, and their impact on changing conversational interaction: practices pertaining to them. Government efforts to influence fertility behavior call attention to one im- portant feature of modern states: political intervention into private life, intimacy, and sexuality. Politics of repro- duction refers to intersection between politics and life cycle, or between public sphere and private lives. Expansion of states and the bodies and lives of citizens has blurred lines between public and private interests. Exploration of diverse aspects of politics of reproduc- tion, their gendering, and their impact on changing family forms to encourage students to think compara- tively and historically about these issues in different contexts and cultures. Letter grading.

254. Human Capital, Social Capital, and Cultural Capital. (4) Lecture, three hours. Designed for grad- uate students. Intellectual history of these concepts, points of difference and similarity among these con- cepts, current exemplars of research that utilize these concepts, and critical reflection on research tradi- tions. Letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M255.) Seminar, three hours. How does gender manifest itself in lives of dif- ferent groups of women in U.S. and abroad? Are uni- versal cultural categories or cultural conceptual move- ments possible or is gender too different cross-cultur- ally? S/U or letter grading.


257. Demography of Marriage Formation and Dis- solution. (4) Discussion, three hours. Requisite: course 210A. Extensive and intensive critical exam- ination of major approaches to analysis of marriage formation and dissolution, with focus primarily on demog- raphic literature. S/U or letter grading.


259. Social Structure and Economic Change: His- torical and Comparative Perspectives. (4) Lecture, four hours. S/U or letter grading.


262. Black Families and Relationships. (4) Same as African American Studies M262C.) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with biological and genetic factors and expanding to consider 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 critical interrogation of notions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and interracial intimacies. S/U or letter grading.

263. Social Demography of Los Angeles. (4) (Same as Community Health Sciences M263.) Lecture, three hours. Designed for graduate students. Use of city of Los Angeles to examine major social and demographic characteristics that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes. Letter grading.


266. Selected Problems in Analysis of Conversation. (4) Lecture, three hours. Requisites: courses 244A, 244B. Variable topics/formats course. Consult instructor for topics and formats to be offered in specific term. May be repeated for credit with topic change. S/U or letter grading.

268. Selected Problems in Psychoanalytic Sociology. (4) Discussion, three hours. Recommended preparation: at least one year of methods courses. Selected topics blend exploration of sociology of psychoanalysis, which may be substantive (group development, socialization, culture, deviance, collective behavior) or methodological; latter focuses on clinical fieldwork. May be repeated for credit with topic change. S/U or letter grading.


270. Interdisciplinary Relationship Science. (4) (Same as Evaluation M597, and Psychology M256.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

272. Topics in Political Sociology. (4) Lecture, four hours. S/U or letter grading.

275. Contemporary Issues of American Indians. (4) (Same as American Indian Studies M200C and Anthropology M269.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, as families, and as social and cultural organizations in contemporary world, building on historical background presented in American Indian Studies M200A and cultural and expressive experience of American Indians presented in American Indian Studies M200B. Letter grading.

276. Selected Topics in Sociology of East Asia. (4) Lecture, three hours. Designed for graduate students. Selected problems in China, or in China and Japan comparatively. Possible topics include (1) China’s Great Proletarian Cultural Revolution, (2) internal contradictions in Chinese society: male/female relations, city and countryside, minority nationalities, class struggle under socialism, etc., (3) China and Japan: two models of development. S/U or letter grading.

278. Sociology of Latin America. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Review and critical assessment of diverse literature on international traffic of persons, with emphasis on significance of sociological, legal, and gender aspects of trafficking. Primary focus on trafficking for sex work and 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 Sociolo- gy. (4) Lecture, three hours. Exploration of some mathematical models in sociological research. Possible topics include models of small groups, social mobility, kinship relations, organizations, social interaction. S/U or letter grading.

282. Sociology of Medicine. (4) Seminar, three hours. Review of major concepts and issues in sociology of medicine. Topics include medicine, culture, and capitalism, professions and power, challenge of managed care, sick role and social control, interactionism and negotiation of sickness, sickness and self, debate over medicalization and demedicalization. Design as preparation for field examination in sociology of health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.

283. Communication in Medical Care. (4) Seminar, three hours. Review and development of empirical knowledge about doctor-patient relationship. Analysis of nature and dynamics of routine office visits, with focus on 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.

284. Topics in Mental Health and Illness. (4) Lecture, two to three hours. Requisite: course 148D. Designed for graduate students. Letter signed for graduate students. Seminars on selected current topics of sociological interest. Consult instructor for topics and formats to be offered in specific term. May be repeated for credit. S/U or letter grading.

285A-285Z. Special Topics in Sociology. (4 each) Seminar, three hours. Designed for graduate students. Seminars on selected current topics of sociological interest. Consult instructor for topics and formats to be offered in specific term. May be repeated for credit. S/U or letter grading.

287. Topics in Chinese Society. (4) Seminar, three hours. Preparation: at least two upper division courses in Chinese 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.

288A-288B-288C. Mental Health Services for Persons with AIDS. (4-4-4) Lecture, four hours. Designed for graduate students. Analysis of current research on mental health service systems for persons with AIDS. S/U grading.

289A-289B. Practicum in Conversation Analysis. (2-4) Requisites: courses 244A, 244B, S/U grading. 289A: Seminar, three hours. Practice in analysis of conversational data. May be repeated for credit. 289B. Developing Work in Progress. Seminar, three hours. Opportunity to advance research projects in progress and to develop skills of constructive criticism in discussing work of others.

M290A-M290B. Immigration, Racial Change, and Education in 21st-Century Metropolis. (4-4) (Same as Education M289A-M289B, Political Science M290A-M290B, and Public Administration M289B.) Seminar, four hours. Examination of metropolitan American society and institutions at beginning of 21st century. Consideration of best available information on history of settlements of mass and class origins of urban space and institutions, and issues of opportunity linked to urban structure in society facing unprecedented demographic change that will end primarily European domination of our society by mid-century, creating democracy with no racial or ethnic majority. How this demographic transition and postindustrial transformation of urban functions and space interact to shape opportunity and inequality. Vast economic transformations, brought about by globalization of workplace and dramatic decline of industrial employment in advanced nations, not only greatly raise stakes on creating equality opportunity but also cut off what were previously extremely important parts of intergenerational mobility. In Progress (M290A) and letter (M290B) grading.


295. Working Group in Sociology. (1 to 4) Discussion, two hours. Variable topics, including sociology of gender; ethnography; social networks; race, ethnicity; immigration; and sociological methods. 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 movies 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. Preparation: current interest in interest and research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


495. Supervised Teaching of Sociology. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Undergraduate or graduate enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.
Scope and Objectives

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 B.A., M.A., or Ph.D. 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 Chicano literature. The breadth of courses offered by the department allows undergraduate students to pursue many possible interests and enables graduate students to concentrate in depth in several areas of specialization.

The department’s courses are primarily designed to serve the five B.A. programs: B.A. in Spanish, B.A. in Spanish and Community and Culture, B.A. in Spanish and Linguistics, B.A. in Spanish and Portuguese, and B.A. in Portuguese, as well as to prepare students for its graduate programs: M.A. in Spanish, M.A. in Portuguese, and Ph.D. in Hispanic Languages and Literatures. The courses are also functionally supportive of such interdepartmental programs as the B.A., M.A., and Ph.D. programs in Chicana and Chicano Studies, B.A. and M.A. programs in Latin American Studies, and M.A. and Ph.D. programs in Comparative Literature.

Undergraduate Study

Two of the majors in the Spanish and Portuguese Department are designated capstone majors: Spanish, and Spanish and Community and Culture.

For the Spanish major, seniors complete a capstone seminar that provides unique opportunities 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.

For the Spanish and Community and Culture major, undergraduate 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.

Undergraduate Courses

Spanish 1 through 3 use Castells’ Mosaicos. 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 must take the departmental placement examination. Consult the Schedule of Classes or the department office for more information.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Spanish and Portuguese grammar and/or composition.

Spanish B.A.

Capstone Major

Preparation for the Major

Required: Spanish 25 or 27 or equivalent, and 42 and 44 or equivalent as determined by the undergraduate adviser. Each course must be passed with an average grade of C or better prior to beginning upper division work in the major.

Transfer Students

Transfer applicants to the Spanish major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/admissions/transfer.php for up-to-date information regarding transfer selection for admission.

The Major

Required: (1) Two core courses (Spanish 119 and 120), (2) eight upper division Spanish elective courses in literature, culture, linguistics, media, service learning, or interdisciplinary studies, up to two 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).

Spanish and Community and Culture B.A.

Capstone Major

Preparation for the Major

Required: Spanish 25 or 27, 42, 44. Each course must be passed with an average grade of C or better prior to beginning upper division work in 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Spanish 100A or 100B, and 119 or 120; (2) two 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 and Chicano Studies 100SL, 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 and Chicano Studies 100SL, Spanish M165SL, M172SL.

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.

Spanish and Linguistics B.A.
Preparation for the Major
Required: Spanish 25 or 27, M35 (or Linguistics 20), 42 or 44. Each course must be passed with an average grade of C or better prior to beginning upper division work in 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 at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Spanish 100A or 100B, 130A, 130B, and seven elective courses selected from 100A through 199. Two 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 eight of the 10 courses must be taught in Portuguese.

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 a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Double Majors
Through judicious use of electives, students may find it possible to secure the B.A. degree with two complete majors (e.g., Portuguese/Spanish, Spanish/History, Portuguese/Sociology, etc.). Interested students should consult the undergraduate adviser in Portuguese as early as possible in their B.A. program.

Study in a Portuguese-Speaking Country
Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty adviser in Portuguese. Proposals may be submitted in advance in writing and must be approved by the department.

Portuguese Minor
To enter the Portuguese minor, students must have an overall grade-point average of 2.0 or
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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Spanish and Portuguese offers the Master of Arts (M.A.) degree in Spanish, Master of Arts (M.A.) degree in Portuguese, and Candidate in Philosophy (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Hispanic Languages and Literatures.

Portuguese

Lower Division Courses

1. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.


4A-4B. Portuguese Conversation. (2-2) Discussion, three hours. Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.

11A-11B. Intensive Portuguese. (5-5) (Formerly numbered 102A-102B.) Lecture, six hours. Preparation: foreign language experience (other than Portuguese). Development of speaking and reading skills equivalent to those covered in three terms of traditional Portuguese. May be repeated for credit with topic change. P/NP or letter grading.

25. Advanced Portuguese. (4) Lecture, three 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.


26A. Language and Popular Culture: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

27. Advanced Composition and Style. (4) (Formerly numbered 103.) Lecture, three 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.

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.

35. Spanish and Portuguese, and Nature of Language. (5) (Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.


40A-40B. Portuguese, Brazilian, and African Literature. Lecture, three hours; 40B. Brazilian Literature. Lecture, four hours.

46. Brazil and Portuguese-Speaking World. (5) Lecture, four hours; discussion, one hour (when scheduled). Taught in English. Topical analysis of cultural history of Brazil in context of Portuguese-speaking world, with emphasis on comparative, trans-Atlantic relations, social development, and artistic manifestations. P/NP or letter grading.

Upper Division Courses


103A-103B. Introduction to Literature in Portuguese. (4-4) Lecture, three hours. Enforced requisite: course 27. Introduction to principal themes, currents, and authors from Brazil in context of Portuguese-speaking world. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, three 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, three 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, three 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, three hours. Taught in English. Exploration of roots of contemporary Brazil through study of broad chronological periods from Portuguese colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and luso-tropicalism and its influence on Brazilian historiography. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazil and Portuguese in Comparative Perspective. (4) Lecture, three 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) Lecture, three hours. Taught in English. Exploration of travel, memory, and narrative in Portuguese-speaking world. Primary and secondary texts
depict issues of displacement, cultural contact, and assimilation. Overview of connections among Portuguese-speaking cultures. May be repeated for credit with topic change. P/NP or letter grading.

143A. Colony, Intellectuals, and History. (4) Lecture, three hours. Enforced requisite: course 27. Investigation of way that Brazilian maritime expansion from 15th to early 19th century was represented and interpreted in writings from across empire. May be repeated for credit with topic change. P/NP or letter grading.

143B. Transatlantic Literature in Portuguese. (4) Lecture, three 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, three hours. Enforced requisite: course 27. Examination of concepts and practice of modernism in Portuguese-speaking world, with primary focus on 1920s. Reading and discussion, with emphasis on sociocultural context, relations with European avant-garde, modernist poetics and polemics, and search for national identity as expressed in period’s poetry and prose. May be repeated for credit with topic change. P/NP or letter grading.

143D. Contemporary Literature in Portuguese. (4) Lecture, three hours. Enforced requisite: course 27. Exploration of literary interrelations of course Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

187FL. Special Studies: Readings in Portuguese. (2) Seminar, two hours. Requisite: course 27. Students must be concurrently enrolled in affiliated main course. Additional work in Portuguese to augment work assigned in main course, including reading and writing assignments. May be repeated for credit. P/NP or letter grading.

191. Undergraduate Variable Topics Seminars: Portuguese. (4) Seminar, three hours. Requisite: course 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.

192A-198B. Senior Honors Research in Portuguese Literature. (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 credited toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Portuguese. (2 to 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 credited toward major requirements. Individual contract required. Letter grading.

200A-204B. Generative Morphology and Phonology. (4) Lecture, three hours. Study of theoretical synchronic linguistic description and metatheory. May be repeated for credit once with topic change. S/U or letter grading.

201A-201B. Literary Theory and Criticism. (4-4) (Same as Spanish 201A-201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.


204A-204B. Generative Grammar. (4-4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on metatheory. May be repeated for credit once with topic change. S/U or letter grading.

205A-205B. Development of Portuguese and Spanish Languages. (4-4) (Same as Spanish 205A-205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.


227. 19th-Century Portuguese Literature. (4) (Formerly numbered C227.) Lecture, three hours. Enforced requisite: course 27. Study of principal features through representative works. May be repeated for credit with topic change. S/U or letter grading.

228. Post-Romanticism and Naturalism in Portuguese Literature. (4) (Formerly numbered C228.) Lecture, three hours. Enforced requisite: course 27. Study of principal features through representative works. S/U or letter grading.

229. 20th-Century Portuguese Literature. (4) (Formerly numbered C229.) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

230. Colonial Brazilian Literature and Culture. (4) (Formerly numbered C230.) Lecture, three hours. Enforced requisite: course 27. Study of important authors to 1830. May be repeated for credit with topic change. S/U or letter grading.

231. Colonial Brazilian Literature and Culture. (4) (Formerly numbered C231.) 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.

232. 19th-Century Brazilian Literature and Culture. (4) (Formerly numbered C232.) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

233. Machado de Assis. (4) (Formerly numbered C233.) Lecture, three hours. Study of selected works by Joaquim Maria Machado de Assis. S/U or letter grading.

234. Brazilian Modernism. (4) (Formerly numbered C234.) Lecture, three hours. Enforced requisite: course 27. Study of principal characteristics of Brazilian modernism through representative works. S/U or letter grading.

235. 20th-Century Brazilian Literature. (4) (Formerly numbered C235.) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Spanish M249.) Lecture, three hours. Intensive study of folk literature of Spanish and Portuguese cultures, including in (1) ballad and poetry, (2) narrative and drama, (3) speech. S/U or letter grading.

251A-251B. Studies in Galegan-Portuguese and Old Spanish. (4-4) (Same as Spanish M251A-251B.) Lecture, two hours. Study of problems related to historical development of Galegan-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate faculty committee.


255. Studies in Modern Brazilian Literature. (4) Discussion, two hours. S/U or letter grading.


260. Special Topics. (4) Discussion, two hours. Designed for graduate students. Consult Schedule of Classes or department counselor for topics to be offered in a specific term. S/U or letter grading.


275. 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.

596. Directed Individual Study or Research. (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 8 units may be applied toward M.A. 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 M.A. comprehensive examination or Ph.D. 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) Discussion, five hours; laboratory, one hour. P/NP or letter grading.

1. Reading Course for Graduate Students. (4) Lecture, three hours. Knowledge of Spanish not required. May not be applied toward degree requirements. S/U grading.

2. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.

2. Intensive Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.

2. 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) Discussion, five hours; laboratory, one hour. Enforced requisite: course 2. P/NP or letter grading.
3A. Intensive Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Intensive basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.


5. Intermediate Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 4. P/NP or letter grading.


8A-8B. Spanish Conversation. (2-2) Discussion, three hours. Course 8A is open to students with credit for course 4. Students who have completed course 3 with 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, leading as 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) (Formerly numbered 102A-102B.) Lecture, six hours. Introduction to oral and written Catalan language. Two-term accelerated language sequence equivalent to three terms of traditional pattern and designed for advanced undergraduate and graduate students. P/NP or letter grading. 11A: Preparation: at least two years of college-level Spanish, Portuguese, or another Romance language other than Catalan. 11B: Requisite: course 11A.

25. Advanced Conversation and Composition. (4) Lecture, three hours. Enforced requisite: course 5. Emphasis on development of communicative abilities, both verbal 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.

27. Composition for Spanish Speakers. (4) Lecture, three hours; discussion, five hours; Enforced requisite: course 6. Practice in reading and writing of Spanish for students with oral proficiency in Spanish (in lieu of course 25). P/NP or letter grading.

28A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Enforced requisite: course 5. 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.

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 settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

42. Iberian Culture. (5) (Formerly numbered M42.) Lecture, three hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spain, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

44. Latin American Culture. (5) (Formerly numbered M44.) Lecture, three hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

50. Emphasis on development of communicative abilities, both verbal 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.

60A-60B-60C. Hispanic Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom discussion, papers, and examinations in English. 60A. Spanish Controversies; 60B. Spanish-American Literature; 60C. Don Quijote.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Knowledge of Spanish not essential. Variable topics courses designed to explore various themes and issues pertinent to Hispanic literature and culture.

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.

Upper Division Courses

100A-100B. Introduction to Study of Spanish Grammar. (4-4) Lecture, three hours. Requisite: course M35. 100A. Phonology and Morphology. Analysis of phonemic and morphological systems of Spanish. 100B. Syntax. Study of syntactical systems of Spanish.


120. History of Literature. (4) Lecture, three hours; discussion, one hour. Requisite: course 25. Introduction to different ways of looking at literary works as historical phenomena. Presentation of major models for writing history—great narratives, cyclical, teleological, sacred, and profane conceptions. Traditional concepts of literary history and problems of mixed categories (historical epochs versus epochs of style, national history, and world literature). P/NP or letter grading.

130. Topics in Medieval Studies. (4) Lecture, three hours. Requisite: course 25. Exploration of medieval Iberian literatures: lyric poetry, prose, and history of peninsular, with emphasis on its literary and linguistic diversity. Possible topics include Convivencia (peaceful coexistence), Europe and Orient, beginnings of Inquisition, oral versus written traditions, origins of Hispano-Christian expansion beyond peninsular, 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, three hours; discussion, one hour (when scheduled). Enforced requisite: course 25. Exploration of 16th and 17th centuries, with focus on early modern period of Spain and Spanish America. Possible topics include Spanish colonization and indigenous responses, transatlantic literary and visual baroque, race and religion 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, three hours. Requisite: course 25. Exploration of major literary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nation-building historical Studies. (4)

145A. Introduction to Chicano Literature: Literature to 1960. (4) (Same as Chicana and Chicano Studies M145A.) Lecture, three hours. Requisite: course 25 or 27. Examination of literature of Chicanos during 20th century. Most required reading in Spanish. Bilingual and English works 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.

151. Topics in Contemporary Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 25. Exploration of main trends that characterize contemporary Latin American and Spanish literatures and cultures. Possible topics used to address them. Possible topics include trans- cultural and heterogeneity, race and ethnicity, van- guard movements, lettered and popular cultures, lit- erature modernization in Latin America, litera- ture and revolution, autobiography, women's writing, border literature, and postmodernist fiction. May be repeated for credit with topic change. P/NP or letter grading.

M155A. Chicano Narrative. (4) (Formerly numbered M145A.) (Same as Chicana and Chicano Studies M145A.) Lecture, three hours. Enforced requisite: course 25 or 27. Introduction to major Chicano narra- tive genres—novel, romance, autobiography, cronicería/simulanza, Chicana detective novel, and Chicana solidarity fiction. Texts examined within their own geographic, cultural, and historical contexts, as well as within history of narrative forms. P/NP or letter grading.

M155B. Literature of Chicana/Chicano Movement. (4) (Formerly numbered M145B.) (Same as Chicana and Chicano Studies M145B.) Lecture, three hours. Enforced requisite: course 25 or 27. Examination of literature of Chicana/Chicano movement covering pe- riod from first manifestations of Chicano artistic pro- duction in 1965 with el Teatro Campesino through rise of women's writing, including work by Cherrie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) (Formerly numbered M155C) Lecture, three hours. Enforced requisite: course 25 or 27. Exploration of spread of Spanish-American literature and culture throughout North America, including literatures that are out- growth of civil rights movements of 1960s, recent de- mographic changes, new transnational identities, and mixed citizenships of U.S. Latinos and Latinos, Chi- cano, Puerto Rican, Cuban American, Central Amer- ican, South American, and Jewish Latino literatures may be included. May be re- peated for credit with topic change. P/NP or letter grading.

160. Topics in Spanish Linguistics. (4) Lecture, three hours. Requisite: course 25. Exploration of origin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish varies in world, how to teach Spanish, Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of Spanish language, first- and second-language acquisi- tion, language and cognition. May be repeated for credit with topic change.

M165SL. Taking It to Street: Spanish in Communi- ty. (5) (Same as Applied Linguistics M165SL and Chi- cana and Chicano Studies M165SL) Seminar, three hours; fieldwork, 10 hours. Enforced requisite: course 25 or 27. Service learning course to give students oppor- tunity to use cultural and linguistic knowledge ac- quired in Spanish classes in real-world settings. Stu- dents required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

170. Topics in Media, Interdisciplinary, and Trans- historical Studies. (4) Lecture, three hours; discuss- ion, one hour (when scheduled). Requisite: course 25. Interrelation between print, visual, and live arts, and way they exist in mass media, new technologies, and different platforms. Possible topics include visual cultures in Latin America, cultural studies, film and Spanish cinema, musical cultures and literature, live arts and performance in popular culture, three-dimensional points of view characteristic of work written by Chi- canos during 20th century. Most required reading in Spanish. Bilingual and English works included and discussed. Reading and analysis of number of im- portant scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.
modeling of material culture, and architecture of me-
dieval Iberia. May be repeated for credit with topic change.
P/NP or letter grading.

M172SCL, and Literacy. (5) (Same as Applied Linguistics M172SL, Chicana and
Chicano Studies M170SL and Honors Collegium M128SL.) Seminar, four hours; field project, four to six hours. Recommended requisite: course 100A. In-
depth study of various topics related to literacy, in-
cluding different definitions of literacy, programs for adult preliterate, literacy and gender, approaches to literacy (whole language, phonics, Freire's liberation pedagogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy cam-
paigns. 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. Requisite: course 25. Explora-
tion of art of translation or creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and film-
makers who discuss theory, methodology, and prac-
tice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and
Culture I, II. (1-2) Tutorial, one hour. Requisite: course 25 or 27. Designed as adjunct to upper divi-
sion course in Hispanic literature, language, and cul-
ture. Exploring greater depth through supplemental readings, papers, community service, or other activities. Course 187A may be repeated on for credit. P/NP or letter grading.

191A. Variable Topics in Spanish: Studies in His-
panic Literature and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of cul-
minaling paper, and examinations in Spanish. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisites: courses 119, 120, and at least three upper division elective courses required for majors. Limited to Ranohs majors. Knowledge from previous coursework used to address current trends in discipline; students work with one faculty member on focused research topic. Culling of
minaling paper required. Letter grading.

195. Community Internships in Spanish. (4) Tuto-
rial, one hour; fieldwork, 10 hours. Requisite: course 25 or 27. Limited to juniors/seniors. Internship in su-
 pervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.


198A-198B. Senior Honors Research in Spanish I, II. (4-2) (Formerly numbered 198.) Tutorial, to be ar-
anged. Preparation of minimum of 6 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 ju-
niors/seniors. Supervised individual research under guidance of faculty mentor. Cumulating paper re-
quired. 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 Portu-
guese 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. Definitions, discussion, and application to 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 phonolog-
ical processes and their underlying representation, from previous coursework and current trends in modern Spanish-American literature, particu-
larly naturalism and modernism.

214A-214B. Contemporary Spanish-American Short Story. (4-4) Lecture, three hours. Study of im-
portant short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Po-
etry. (4-4) Lecture, three hours. Intensive study of im-
portant poets 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.

245. Contemporary Spanish-American Essay. (4) Lecture, three hours. Study of important Spanish-
American essays of the 20th century.

246. Contemporary Spanish-American Drama. (4) Lecture, three hours. Study of principal Spanish-
American dramatists and theater movements in the 20th century.

M247. Chicano Literature. (4) (Formerly numbered 247.) (Same as Chicano and Chicano Studies M247.) Lecture, three hours. Study of major movements and authors of Mexican American literature. S/U or letter grading.

M249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Portuguese M249.) Lecture, three hours. Intensive study of folk literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech. S/U or letter grading.

M251A-M251B. Studies in Galician-Portuguese and Old Spanish. (4-4) (Same as Portuguese M251A-M251B.) Lecture, two hours. Study of problems related to historical development of Galego-

 spacing and logical form within a principles-and-param-
eters framework. Bearing of syntactic and semantic structure on study of literature.

M205A-M205B. Development of Portuguese and Spanish Languages. (4-4) (Same as Portuguese M205A-M205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.

209. Dialectology. (4) Lecture, three hours. Major di-
alect areas of peninsular and American Spanish, with

211. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

212. Medieval Epic and Narrative Poetry. (4) Le-
cure, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

213. Medieval Prose. (4) Lecture, three hours. Read-
ings of and lectures on Spanish prose from the begin-
ning to 1500.

224. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

225. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedia.

226. Prose of the Golden Age. (4) Lecture, three hours. Readings of and lectures on fictional, didactic, religious, and historical writing of the period.


228. The Enlightenment. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

229. Romanticism. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

230. Realism and Naturalism. (4) Lecture, three hours. Readings of and lectures on literary works, principally novels, from 1850 to 1890.

231. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898.
26A-26B. Studies in Golden Age Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

272A-272B. Studies in 20th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic 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 topic 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 topic change and consent of appropriate guidance committee.

280A-280B. Studies in Contemporary Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

281. Studies in Chicano Literature. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

286A-286B. Studies in Hispanic Folk Literature. (4-4) Lecture, two hours. Each course may be repeated once with topic 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 topic change and consent of appropriate guidance committee.

291A-291B. Colonial Studies Research Group. (2-2) Research group meeting, two hours. Limited to graduate students. Discussion and analysis of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/or presentation at conferences or symposia.

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.

301. Teaching Spanish in Elementary School. (4) Lecture, three hours.

303. Teaching Language through Drama. (4) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel; recommendation of 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 classrooms. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.


596. Directed Individual Study or Research. (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 4 units may be applied toward M.A. 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 M.A. comprehensive examination or Ph.D. 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.


**SPEECH**

See Communication Studies

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Kevin F. McClellan, Ph.D.

Frederic R. Patrochoenberg, Ph.D.

Christina G.S. Palmer, Ph.D., in Residence

Theodore M. Porter, Ph.D.

David L. Rigby, Ph.D.

Yingnian Wu, Ph.D.

Hongquan Xu, Ph.D.

Alan L. Yuille, Ph.D.

Song-Chun Zhu, Ph.D.

**Professors Emeriti**

Richard A. Berk, Ph.D.

William A. Clark, Ph.D.

Jan de Leeuw, Ph.D.

Thomas S. Ferguson, Ph.D.

Robert I. Jennrich, Ph.D.

James B. MacQueen, Ph.D.

William M. Mason, Ph.D.

Bengt Muthen, Ph.D.

Judea Pearl, Ph.D.

Sidney Port, Ph.D.

N. Donald Ylvisaker, Ph.D.

**Associate Professors**

Hongting Lu, Ph.D.

Janice L. Reiff, Ph.D.

Catherine A. Sugar, Ph.D., in Residence

Qing Zhou, Ph.D.

**Assistant Professors**

Ashar A. Amini, Ph.D.

Jingyi Jessica Li, Ph.D.

**Senior Lecturers**

Maryam E. Estandian, Ph.D.

Nathan J. Langholz, M.S.

Juanita Sanchez, Ph.D.

**Lecturers**

Akram M. Almohalwas, Ph.D.

Dai-Long Le, Ph.D.

Vivian Lew, Ph.D.

Nicolas Christou, Ph.D.

**Adjunct Associate Professor**

Ivaylo D. Dimov, Ph.D.

**Adjunct Assistant Professor**

Katherine M. Mullen, Ph.D.

**Academic Administrator**

Robert L. Gould, Ph.D.

**Scope and Objectives**

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, sensor networks, environmental studies, finance, and computer vision.

Courses and workshops for secondary school teachers of statistics are also offered in order to promote sound statistics pedagogy throughout the curriculum.

Reflecting diverse research interests, the department is organized around several centers that collectively provide undergraduate and graduate students rich opportunities for specialized study. These include the Center for Environmental Statistics, Center for Image and Vision Sciences, Center for Statistical Computing, Center for Statistical Research in Computational Biology, and Center for the Teaching of Statistics.
Undergraduate Study

The Statistics major is a designated capstone major. Undergraduate students work in small groups to solve problems posed by real community-based or campus-based clients. The capstone gives students an opportunity to put into practice concepts and ideas that otherwise might remain theoretical and/or abstract and to synthesize the many topics they have studied. Students should demonstrate ability to restate investigative questions in terms of statistical models or algorithms, find appropriate research literature to support their work, relate theoretical concepts to real-world problems, and clearly communicate their results to nontechnical audiences.

Undergraduate Courses

Students planning to pursue advanced degrees in statistics should enroll in the Statistics 100 sequence. Most courses are offered once or twice each year; students interested in either the major or minor in Statistics should consult with the student affairs officer early in their careers.

Statistics B.S.

Capstone Major

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 B.S. 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.

Statistics Premajor

Incoming freshman and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajor students must apply for the major after completing Mathematics 33A, Program in Computing 10A, and one course from Statistics 10 through 13, with grades of C or better, and a grade-point average of 2.5. Any student who meets the premajor requirements may declare the major with the undergraduate adviser in 8117A Math Sciences, (310) 206-3742.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, Program in Computing 10A, and one course from Statistics 10 through 13. Each course must be completed with a grade of C or better. Students who repeat any preparation course more than once are automatically denied admission to the major.

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.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm _tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Statistics 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, two capstone statistical consulting courses (140SL, 141SL), and two upper division elective courses selected from 130, 151A through 199, Mathematics 131A, 131B, 151A, 151B, 170B, 171, 172A, 172B. Elective courses from outside the department are selected in consultation with the undergraduate faculty adviser.

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.

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 131A, 131B, 151A, 151B, 170B, 171. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Statistics Minor

The Statistics minor is designed to provide a solid background in statistics for students majoring in other disciplines.

To enter the minor, students should have successfully completed one course from Statistics 10 through 13 with a letter grade, have an overall grade-point average of 2.0 or better, and file a petition with the undergraduate adviser in 8117A Math Sciences, (310) 206-3742.

Required Lower Division Courses (9 units): Statistics and Mathematics 31B. Required Upper Division Courses (28 units): Seven upper division courses selected from one of the following options: (1) any two sequences from Statistics 100A, 100B, 100C, and 101A, 101B, 101C, and 102A, 102B, 102C, and one elective course or (2) two courses from each of the above sequences and one elective course. Electives may be selected from any upper division statistics course. Statistics 199 may be applied as one of the electives for both options. Courses 105 and 189 may not be applied toward the minor.

A minimum of 20 units applied toward the major requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Statistics offers Master of Science (M.S.), Candidate in Philosophy (C.Phil.), and Doctor of Philosophy (Ph.D.) degrees in Statistics.

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 studies; 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, (5) 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, introduction to 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.


35. Introduction to Probability with Applications to Poker, (4) Lecture, three hours; discussion, one hour. Exploration of some main topics in introductory probability theory, especially discrete probability problems, that are useful in wide variety of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, univariate distributions, Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

88. Sophomore Seminars: Statistics, (2) Seminar, two hours. Requisite: one course from 10, 11, 12, 13, or 14. Limited to 20 lower division students.
and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A; open to graduate students. Students may receive credit for only two of the following: course 100A, former course 110A, Biostatistics 100A. Probability distributions, random variables, vectors, and expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. 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. Requisite: course 100B. Theory of linear models, with emphasis on matrix approach to linear regression. Topics include model fitting, extra sums of squares principle, testing general linear hypothesis in regression, inference procedures, Gauss/Markov theorem, and inference on predicted component regression, stepwise procedures. P/NP or letter grading.

101A. Introduction to Data Analysis and Regression. (4) (Formerly numbered 101B.) Lecture, three hours; discussion, one hour. Enforced requisite: course 10 or 12 or 13. Recommended: course 102A. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical inference. P/NP or letter grading.

101B. Introduction to Design and Analysis of Experiment. (4) (Formerly numbered 101A.) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Fundamentals of collecting data, including components of experiments, randomization and blocking, completely randomized design and ANOVA, multiple comparisons, power and sample size, and block designs. P/NP or letter grading.

101C. Introduction to Statistical Models and Data Mining. (4, Lecture, three hours; discussion, one hour. Enforced requisite: course 101B. Designed for juniors/seniors. Applied regression analysis, with emphasis on generalized linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical inference. P/NP or letter grading.

102A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Requisites: course 10, Mathematics 33A. Introduction to programming and data analysis in R. P/NP or letter grading.

102B. Introduction to Computation and Optimization for Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. 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 100A or Electrical Engineering 131A or Mathematics 170A. Foundation of probability concepts and techniques of statistics. Topics include sampling distributions, statistical estimation (including maximum likelihood estimation), statistical intervals, and hypothesis testing, with emphasis on application of computer concepts. Discussion of methods for checking whether assumptions required for mathematical foundations are appropriate for given set of data. P/NP or letter grading.


130. Getting Started with SPSS, Stata, SAS, and R. (4, Lecture, three hours; discussion, one hour. Preparation: basic statistics, basic computer literacy. Study of four commonly employed solutions—SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R—for data analysis and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problem solving, common issues in data analysis, use of computer for analysis of large-scale data. P/NP or letter grading.

140SL. Practice of Statistical Consulting. (4, Lecture, one hour, discussion, two hours. Enforced requisite: courses 100B, 101B, 130. 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 visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. In Progress grading (credit to be given only on completion of course 141SL). P/NP or letter grading.

C141SL. Practice of Statistical Consulting. (4, Seminar, one hour; research group meeting, two hours. Enforced requisite: course 140SL. 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 visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. In Progress grading (credit to be given only on completion of course 141SL). P/NP or letter grading.


170. Introduction to Time-Series Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C or 101B. Exploration of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided throughout. Examples of different measurement techniques discussed. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M171.) Lecture, three hours; laboratory, one hour. Requisite: one course from 10, 11, 12, 13, or 14. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

C173. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: 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, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge and understanding of fundamental and modern geostatistical techniques discussed. P/NP or letter grading.

C180. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100C (may be taken concurrently) or 101B. Bayesian methods, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, robust parametric designs. Concurrently scheduled with course C225. P/NP or letter grading.

C151. Experimental Design. (4) Lecture, three hours. Requisites: courses 100C (or 101B or 101C), 101A. Basic principles, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, minimum aberration designs, robust parametric designs. Concurrently scheduled with course C225. P/NP or letter grading.


C155. Applied Sampling. (4) Lecture, three hours; discussion, one hour. Designed for upper division and graduate students in social science and commerce. Introduction to methods who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of sampling and estimation bias, and methods of generating efficient and plausible population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course CM248. P/NP or letter grading.


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metric 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 methods and assignments. Objectives and techniques of scientific writing and practice with different forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and mechanics. P/NP or letter grading.


186. Careers in Statistics. (1) Seminar, one hour. Discussion of applications of statistics by weekly guest speakers. How statistics is applied to legal questions, economics decisions, arts, environment, and other fields, with some emphasis on career paths in statistics. P/NP grading.

195. Community or Corporate Internships in Statistics. (4) Lecture, four 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.

199. Directed Research in Statistics. (1 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201A. Advanced Model Fitting and Inference. (4) Lecture, three hours. Strongly recommended requisites: courses 200B, 201B. Designed for graduate students. Introduction to statistical model fitting and inference, including Bayesian hierarchical models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and Bayesian nonparametrics. Estimation 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.

202A. Statistical Programming. (4) Lecture, three hours. Topics include programming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technologies/formats such as relational databases/SQL and XML, with emphasis on complex data types, including large collections of textual data, GPS traces, network logs, and various online sources. S/U or letter grading.

202B. Matrix Algebra and Optimization. (4) Lecture, three hours. Recommended requisite: course 202A. Survey of computational methods that are especially useful for statistical analysis, with implementation of these methods in R. Topics include matrix analysis, multivariate regression, principal component analysis, multivariate analysis, and deterministic optimization methods. S/U or letter grading.


204. Nonparametric Function Estimation and Modeling. (4) Lecture, three hours. Requisite: course 200A. Introduction to many useful nonparametric techniques such as density estimation, nonparametric regression, and high-dimensional statistical modeling. Some semiparametric techniques and functional data analysis. Letter grading.

C216. Social Statistics. (4) Lecture, three hours. Preparations: 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 students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C116. S/U or letter grading.

218. 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 mathematical representation of social concepts such as role and position. Use of graph theoretical representations of network information. S/U or letter grading.


M232A. Statistical Modeling and Learning in Vision and Science. (4) (Same as Computer Science M266A.) 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, partial differential equations. S/U or letter grading.

C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B, Mathematics 32B. 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.

M237. Data and Media Arts. (4) (Same as Design | Media Arts M239.) Studio, six hours. Through exploration and reflection of technical, social, and general advancement of data collection technologies, almost every aspect of our lives can be rendered in data. Contemplation of use of data in creation of mass media and examination of each step in process of data collection, analysis, and representation. Topics include databases and data warehousing, exploratory analysis and visualization, clustering and pattern finding, sampling, and various data mining algorithms. Exploration, through discussions, of fundamental concepts like complexity and randomness. Techniques that organize data, search for patterns, and create meaningful and/or expressive representations. Letter grading.

238. Vision as Bayesian Inference. (4) Lecture, three hours. Requisite: course 100A or 200A. Formulation of vision as Bayesian using models developed for designing artificial vision systems. Applied to statistics, they define ideal observer models that can be used to model human performance and serve a benchmark. S/U or letter grading.

M239. Probabilistic Models of Cognition. (4) (Formerly numbered 239.) (Same as Computer Science M278.) Seminar, three hours; discussion, one hour. Requisites: course 100B, Computer Science 180, Mathematics 33A. Modeling aspects of human cognition, designing artificial intelligence systems. Introduction to conceptual foundations and basic mathematical and computational techniques. Topics illustrated on different aspects of cognition. S/U or letter grading.
240. Multivariate Analysis. (4): Lecture, three hours. Requisite: course 200B. Distributions in several di-
mensions, partial and multiple correlation. Normal dis-
tribution theory. Multivariate normal distribution, Hotelling’s T2. Principal components, canonical correlation, discrimi-
nant analysis. Introduction to linear structural relations and factor analysis. Letter grading.

M241. Current Topics in Causal Modeling, Infer-
ence, and Selection. (4): Same as Computer Sci-
ence 262C.: Lecture, four hours. Requisite: one graduate probability or statistics course such as course 120A, 130B, 180, 186A, 186B. Requi-
sites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Explores causal aspects of 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 Bio-
geny. (4): Same as Bioinformatics 271 and Biomathe-
matics M271.: Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requi-
sites: course 100A or 200A or Bioinformatics M260A. Introduction to statistical methods developed and widely applied in several branches of computa-
tional 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.

C261. Introduction to Pattern Recognition and Ma-
chine Learning. (4): Lecture, three hours. Requisites: course 100B, Mathematics 33A. Introduction to pat-
tern recognition and machine learning designed for advanced undergraduate and graduate students. Concurrently scheduled with course C161. S/U or letter grading.

ence 180. Introduction to state-of-art computational models of mammalian visual cortex, with topics of low-, mid-, and high-level vision. Discussion of rele-
vant evidence from anatomy, electrophysiology, imag-
ing (e.g., fMRI), and psychophysics. Concentration on mathematical models and these phenomena, taking into account recent progress in probabilistic models of computer vision and developments in ma-
chine 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 hy-
drology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, oceanography, monitoring the art of 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 to geostatistics with geo-
graphic information systems (GIS). Concurrently sched-
uled with course C173. S/U or letter grading.

C283. Statistical Models in Finance. (4): Lecture, three hours. Recommended requisite: course 100B. Designed for graduate students. Statistical tech-
niques in investment theory using real market data. Portfolio management, risk diversification, efficient frontier, single index model, capital asset pricing model (CAPM), beta of a stock, European and Amer-
ican options (Black/Scholes model, binomial model). Concurrently scheduled with course C183. S/U or letter grading.

285. Seminar: Computing for Statistics. (2 to 4): Seminar, one to three hours. Topics in various statis-
tical areas by means of lectures and informal confer-
dences with staff members. S/U grading.

M286. Seminar: Statistical Problem Solving for Pop-
bulation Biology. (2): Same as Ecology and Evolu-
tionary Biology M286.: Seminar, two hours. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by graduate students in their own research. S/U or letter grading.

287. Seminar: Gene Expression and Systems Biol-
ogy. (2): Seminar, two hours. Designed for graduate students (open to undergraduate students with con-
tent of course at discretion of instructor). Practical applications of sampling methods via lectures and hands-on labora-

250. Statistical Methods for Epidemiology. (4): (Same as Biostatistics M211 and Epidemiology M211.): Lecture, four hours. Preparation: two terms of statistical consultation and M231A, M231B. Requi-
sites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Explores causal aspects of 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.

290. Current Literature in Statistics. (2): Seminar, one hour. Topics in various statistical areas by means of lectures and informal conferences with staff mem-

291SL. Service Learning for Graduate Statistical Consulting. (4): Research group meeting, two hours; fieldwork, two hours. Exposure to realistic statistical and scientific problems that appear in typical interac-
tions between statisticians and researchers, with lec-
tures centered on case studies presented by faculty mem-
bers and invited speakers from business and ac-
ademic fields. Applied regression analysis and design of experiments, together with basic statistical pro-
grams. Presentations and written reports required. S/U or letter 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 mem-
ber. May be repeated for credit. Letter grading.

495A. Teaching College Statistics. (2): Seminar, two hours; discussion, one hour. Teaching apprenticeship under active guid-
ance of a faculty member. May be repeated for credit. Letter grading.

495B. Teaching College Statistics. (2): Seminar, two hours. Discussion of theoretical issues in using technology to teach statistics, including use of statistical software as educa-
tional tool. S/U grading.

496. Statistics Programming and Analysis with R. (2 to 4): Seminar, three hours; discussion, one hour. Introduction to the R environ-
mant and programming environment. Applications of statistical models and methods for analysis of data hypo-
thesized to be generated by unmeasured latent vari-
able distributions. Essential statistical concepts and methods taught within the R programming environ-
mant. S/U grading.

597. Seminar: Statistical Packages Semi-
nar. (1 to 2): Seminar, two hours. Introduction to vari-
ous statistical packages. How to handle data in differ-
ent packages (input, output, data management, treatment of missing data), general syntax of different program-
ing languages and tools for writing own statistical functions. S/U grading.

294. Scientific Writing. (2): Seminar, two hours. De-
velopment of oral and written presentations of statis-
tical data. Objectives and techniques of scientific writing and practice with different forms of profes-
sional writing. Participation in oral presentations of student work. S/U or letter grading.


297SL. Service Learning and Community Learning for Statistics. (2 to 4): Seminar, three hours; field-
work, 10 hours. Further knowledge by applying what students have learned in class to an actual ser-
vice work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either on location or over the Internet. May be for M.S. the-
sis, research project/project required. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4): Sem-
inar, to be arranged. Preparation: apprentice per-
spective deployment as teaching associate, research as-
tee, 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.

485. Statistics Programming and Analysis with R. (1 to 4): Seminar, one hour. Teaching of researchers and data analysts in use of R, software environment for statistical computing and graphics, in applied set-
tings and taught in three tracks—data to graphics in R, basic statistical analysis in R, and advanced topics in R. S/U or letter grading.

495A. Teaching College Statistics. (2): Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential teaching assis-
tants and new Ph.D. students. Practical and theore-
tical 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 an educa-
tional tool. 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 mem-
ber. May be repeated for credit. Letter grading.


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May elect to take additional clinical rotations pending on the patient population and the individual, and Santa Monica UCLA Medical Center, Harbor-UCLA Medical Center, and VA Greater Los Angeles Healthcare System. Preparation: advancement to Ph.D. or letter grading.

**Surgery**

**Upper Division Course**

199. Directed Research in Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**Theater**

**School of Theater, Film, and Television**

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Michael J. Hackett, Ph.D., Chair

**Professors**

J. Ed Araiza, B.A.
Sue-Ellen Case, Ph.D.
Myung Hee A. Cho, M.F.A.
Susan L. Foster, Ph.D.
Hanay L. Geiogamah, B.F.A.
Michael J. Hackett, Ph.D.
Patricia M. Harter, Ph.D.
Neil P. Jampolis, B.F.A.
Christi Karvounides-Dushenko, M.F.A.
Miwon Kwon, Ph.D.
Deborah Nadoolman Landis, Ph.D. (David C. Copley Professor for Study of Costume Design)
Richard Rose, M.F.A.
José Luis Valenzuela, B.A.
Ed T. Villarreal, M.F.A.

**Professors Emeriti**

Alan M. Armstrong, M.F.A.
John R. Cauble, M.A.
Robert H. Hethmon, Ph.D.
Anna Krajeska-Wiezorek, Ph.D.
Michael S. McLain, Ph.D.
Joanne T. McMaster, M.F.A.
Mel Shapiro, M.F.A.
Carol J. Storgrenfeld, Ph.D.
William D. Ward, M.F.A.
William T. Wheatley, Ph.D.
Margaret L. Wilbur, M.F.A.

**Associate Professors**

Lucy M. Burns, Ph.D.
Thomas K. O’Connor
Joseph M. Olivieri, M.F.A.
Shelley I. Salamensky, Ph.D.

**Assistant Professor**

Sean A. Metzger, Ph.D.

**Senior Lecturer S.O.E.**

Thomas J. Orth, Emeritus

**Lecturers**

Cheryl Baxter-Ratiff
Amy E. Chaffee
Michael Donovan
Anthony Fanning

David M. Gorsheim
Richard E. Martinez
Lee Martino
Chantal Rodríguez
Jonathan Snipes
Peter J. Shusharti, M.F.A.
Phi Storns
Natsuo Tomita
Michael Vukadinovich
Jonathan Wang

**Adjunct Professor**

F. Nicholas Gunn

**Adjunct Associate Professors**

Dan T. Belzer, M.F.A.
Linda Kerns
Jeremy L. Mann
Ed J. Monaghan, M.F.A.
Judith E. Moreland, M.F.A.
Jean-Louis Rodrigue
April Shawhan
Paul M. Wagler

**Adjunct Assistant Professors**

Raquel M. Barreto
Bruce Vaughn

**Visiting Associate Professors**

Nathan Bimbbaum
Lainie Kazan
Brian E. Kite

**Visiting Assistant Professors**

Elizabeth A. Brohm
Mary Jo DuPrey
Marilyn E. Fox
Peggy Hickey-Perez
Jessica Kubzansky
Matthew Pelfrey
Marek S. Probosz

**Academic Administrator**

Daniel A. Ionazzi, Jr., M.B.A.

**Scope and Objectives**

The UCLA Department of Theater program offers comprehensive training for the profession, as well as serious study of theater's long history and rich literature. Drawing on this vibrant heritage, the curriculum promotes an awareness of theater as a global phenomenon embodying the contributions of diverse cultures and explores theater as a forum for reflecting the human experience as revealed through the dynamics of theater production. With this in mind, students engage in the presentation of dramatic work in a community where creativity and critical thought combine in the exploration of the artistic and intellectual challenges inherent in the making of theater. 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.

At the undergraduate level, students receive education in acting, design and production, directing, musical theater, playwriting, and the teaching artists program, all within the rigorous liberal arts framework of the B.A. degree. The department also offers a Theater minor.

At the graduate level, the M.A. in Theater offers a flexible curriculum of graduate courses that provides a focus in theater scholarship or theater practice. For exceptional students who wish to pursue graduate education, the M.A. offers a foundation in theater history, criticism,
or performance studies, or an area of theater practice such as dramatic writing, directing, design, or theater education outreach. Students in the M.F.A. program develop as artists and are given preprofessional training in the skills of theater, while Ph.D. students engage in critical investigations of the art form. In conjunction with their theater studies, students also have the opportunity to pursue elective courses in the area of film and television.

For current or specific information about the programs and faculty members, see http://www.tft.ucla.edu/programs/theater-department/.

Undergraduate Study
The Theater major is a designated capstone major. Theater capstone courses represent the highest level of student scholarship/artist achievement in each of the undergraduate areas. They are the culmination of all the broad educational courses and core foundational courses that have come before. 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.

Theater B.A.

Capstone Major
The Theater B.A. provides a liberal education by combining critical study of theater with experiential practice in one or more of its component parts. Students explore acting, design, directing, 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 choose from an array of advanced elective courses in acting, design and production, directing, musical theater, playwriting, and the teaching artists program.

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. All applicants must also sign up for an audition at http://www.tft.ucla.edu/theaterba. There is a $70 fee for all interviews/auditions.

Applicants interested in one of the elective sequences in acting, design and production, directing, musical theater, playwriting, or the teaching artists program may submit materials for consideration in one or more areas.

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, 101C, one course from 102A through 113, 113C or 120, 125A through 125F, 131A, 131B, 131C (capstone seminar), 150 (4 units), and 34 upper division theater elective units.

Majors wishing to pursue one of the elective sequences in the areas of (1) acting, (2) design and production, (3) directing, (4) musical theater, (5) playwriting, or (6) the teaching artists program are expected to complete a sequence of elective courses and enroll in the appropriate Summer Undergraduate Theater Laboratory at UCLA.

Students who do not select one of the elective sequences 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.

Students may only complete one of the elective sequences through participation in a four- to six-week intensive Summer Undergraduate Theater Laboratory between their second and third year. Depending on the elective sequence, each laboratory offers courses, workshops, and master classes that focus specifically on areas of concentration.

The Summer Undergraduate Theater Laboratory is a complete immersion experience in a highly intense learning environment that integrates performance, technique, and research classes.

The acting electives include fundamental and advanced courses in all aspects of performance training that prepare students for careers in performance. There is some performance in projects, but emphasis is on class and studio work. Upper division advanced courses explore verse, scene, and in writing, and engage with a community of artists and scholars presenting theatrical work.


The playwriting electives include specialized and advanced courses that prepare students to write one-act and full-length plays, books and lyrics for music theater, and scripts for the one-person show. The playwriting elective sequence consists of Theater 30, 130A, 131A, 131B. Students must also complete Theater 131C (capstone seminar).

The Ray Bolger Musical Theater Program electives train students with the skills needed for the creation and implementation of classroom lesson plan ning, understanding and effective practice of management techniques, collaborative practice with classroom teachers, and the understanding and development of standards and measurements for the purpose of determining effective teaching strategies. They also provide hands-on theatrical training in the development of ensemble performance, specific training in puppetry as it relates to a child audience, and in the rehearsal, performance, and touring of work to multiple-child audience locations. The teaching artists program elective sequence consists of Theater 118A, 118B, 118D, 138. Students must also complete Theater 180 (capstone seminar).

The teaching artists program elective train students with the skills needed for the creation and implementation of classroom lesson planning, understanding and effective practice of management techniques, collaborative practice with classroom teachers, and the understanding and development of standards and measurements for the purpose of determining effective teaching strategies. They also provide hands-on theatrical training in the development of ensemble performance, specific training in puppetry as it relates to a child audience, and in the rehearsal, performance, and touring of work to multiple-child audience locations. The teaching artists program elective sequence consists of Theater 118A, 118B, 118D, 138. Students must also complete Theater 180 (capstone seminar).

Due to curriculum changes, students in the Theater major are no longer allowed to change their major to Film and Television at the end of their sophomore year.

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.

To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one theater course with a grade of C or better, and file a petition at the Student Services Office, 103 East Melnitz Building, (310) 206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or college.

Required Lower Division Courses (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 28C, 30.


A minimum of 20 units applied toward the minor 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. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Graduate Council of the UCLA Academic Senate voted to suspend admissions to the Theater C.Phil. and Ph.D. degrees effective Fall Quarter 2014. Suspension of admissions to the Theater M.A. degree was granted some time ago.

The Department of Theater offers Master of Arts (M.A.) and Master of Fine Arts (M.F.A.) degrees in Theater and Candidate in Philosophy (C.Phil.) and Doctor of Philosophy (Ph.D.) degrees in Theater and Performance Studies.

Theater

Lower Division Courses

1A-18-1C. 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.

2. Theater in Performance: International Theater Festival. (5) Lecture, three hours; discussion, two hours. Exploration of theater in performance as revealed in productions and guest artists of UCLA International Theater Festival, with emphasis on collaborative role of theater artists and active role of audience. Students view selected productions, go back stage to discover how they were realized, and meet creative team. Letter grading.

4. Israel and Palestine in Literature and Media. (5) Lecture, three hours; discussion, two hours. Readings in English. Exploration of Israel-Palestine through artistic, cultural, and political modes of analysis. Examination of selected works of literature, theater, and film dramatic by Israeli, Palestinian, and Western artists, looking beyond the cultural clichés to deeper insights. Letter grading.

10. Introduction to Theater. (5) Lecture, three hours; discussion, one hour. Exploration of theater in production, with emphasis on collaborative role of theater artists and active role of audience. Understanding of and access to live theatrical event and enhanced appreciation of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, America, Asia, and Africa. Letter grading.

11. Approaches to Interpretation of Theater and Performance. (5) Lecture, four hours. Introduction to basic methods of interpretation in theater and performance throughout the world. Use of theoretical models and faculty members and guest speakers, visits to off-campus theaters, and reading from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical events, including interpretation of drama through performance. Examination of various forms of theatrical performance and styles of expression, and development of acting, voice, and movement skills. Letter grading.

13. Play Reading and Analysis. (5) Lecture, three hours. Provides base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design, (5-5-5) Lecture, three hours; studio, six hours. Exploration of visual and performance design. Introduction to various aspects of theatrical design. Topics illustrating design to the theater’s subdisciplines, including training techniques, archive practices, and constructive practices such as fragmentation, abstraction, synthesis that seek to reinstate classical traditions. Letter grading.


26. Alexander Techniques. (2) Studio, three hours. Study in practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of body to enhance appreciation of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, America, Asia, and Africa. Letter grading.

28A-28B-28C. Acting, Voice, and Movement Workshops I, (2-2-2) Studio, three to six hours. 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.

28D-28E-28F. Acting, Voice, and Movement Workshops II, (2-2-2) Studio, six hours. 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. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.


35A-35B-35C. Singing for Musical Theater I, (1-1-1) Studio, four to five hours. Exploration of musical literacy and development of singing techniques for musical theater. Basic voice training to explore how voice works, learn to maintain appropriate and consistent voice, and learn to preserve voice health. How to build stamina and range. Letter grading.

50. Theater Production, (1 to 2) Laboratory, three 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. Making Tradition. (5) Lecture, four hours; discussion, one hour. Examination of traditional performance traditions in terms of how they were produced, including training techniques, archive practices, and forms of history. Examples may include classical Greek tragedy, Noh and Kyogen, Za u and Chuang, Quem Querets/English medieval festival plays, Sanskrit drama, Yoruba/Egungun, Yaqui deer dance, depending on faculty and resources available. Letter grading.

101B. Reconstructing Theatrical Past. (5) Lecture, three hours; discussion, one hour. Reconstruction of theater is understood in several ways: reconstruction of performance spaces such as New Globe and of specific productions and traditions such as neoclassicism that seek to reinstate classical traditions. Letter grading.

101C. Deconstructing Theater. (5) Lecture, three hours; discussion, one hour. Exploration of deconstructive practices such as fragmentation, abstraction,
tion, and absurdism, with focus on theatrical move- ments, directorial adaptations, cultural translations, and new forms. Letter grading.


102B. Theater of Southeast Asia. (5) Lecture, three hours. Examination of representative theatrical genres from various geographical areas in Southeast Asia to illustrate important and contribution that world theater plays in social and historical context. Letter grading.

102C. Cross-Cultural Theaters in Theater. (5) Lecture, three hours. Exploration of interculturalism in theater, with focus on 20th-century alternatives to naturalism. Analysis of historical materials and dramatic texts to investigate cultural, aesthetic, ethical, and social implications of borrowing from other cultures. Letter grading.

102E. Theater of Non-European World. (5) Lecture, three hours; discussion, one hour. Survey of theater of non-European world in which primary attention is concentrated on examination and analysis of representative works of drama, dance, and music from different cultures. Letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (Same as African American Studies M103A) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as African American Studies M103B) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Letter grading.

M103C. Origins and Evolution of Chicano Theater. (5) (Same as Chicana and Chicano Studies M103C) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature 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 to the 1980s. (5) (Same as Chicana and Chicano Studies M103D) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano theater. Letter grading.

M103E. African American Theater History: Depres- sion to Present. (4) (Same as African American Studies M103E) 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 Depression to present. Letter grading.

M103F. Theater of Non-European World. (5) Lecture, three hours. Study of American Indian theater as evolving from various national traditions to tradition of theater as an outlet of political, social, and aesthetic philosophy of age is examined in musical and dramatic performance. Letter grading.


M111A-111B-111C. Selected Topics in European Theater. (5-5-5) Lecture, three hours. Investigation of nature of performance in theory and practice of various theater traditions of different cultures, traditions, and technologies on development of theater as social institution in America. Letter grading. 104A. Revolutionary War to Civil War; 104B. Civil War to WWI; 104C. WWI to Present.


M109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Honors Collegium M120.) Lecture, four hours; discus- sion, one hour. Drawing from objects in five major collec- tions at Getty Museum, focus on five parallel his- torical periods in which political, social, and aesthetic philosophy of age is examined in musical and dramatic performance. Letter grading.


111A-111B-111C. Selected Topics in European Theater. (5-5-5) Lecture, three hours. Investigation in depth of selected areas of study in traditions of Euro- pean performance to be arranged by historical period, nation of tradition, genre, or other categories. Each course may be repeated twice for credit. P/NP or letter grading.

M112. Interpreting Performance: Examination of Social, Historical, and Cultural Models for Per- forming Arts. (5) (Same as Honors Collegium M112.) Lecture, two hours; discussion, two hours. Examina- tion of nature of performance in theory and practice and of social, historical, and cultural contexts in which performances have historically existed. Attendance at approximately five designated performances/events required. P/NP or letter grading.

113. Special Topics in Critical Studies. (5) Lecture, three hours. Exploration of different approaches to performance, techniques of performance, and objective exercises and operations of Stanislavsky system. Letter grading.


118A. Creative Dramatics. (4) Lecture/laboratory, four hours. Studies of principles and procedures of imaginative and creative applications of theater to working with chil- dren 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 appli- cation of creative dramatics to various artistic tasks 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 problem-solving process of theater exercises and games designed to examine racial stereotypes, sexual harassment, gender discrimination, and other issues that divide members of campus community, as well as issues that divide campus from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to in- tellectual development, exercises and games nurnture social and attitudes used in discussions between actors and audience participants. Use of techniques of sensory awareness, movement, panto- mime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Develop- ment of K-12 teaching materials to integrate theater with specific core curricula. Collaboration with class- room teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences are possible curricular areas. Devel- opment of evaluation tools to measure effectiveness of incorporating theater materials into curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate Cali- fornia State Teaching Content Objectives, objectives, moti- vation, detailed implementation of lesson plan, and ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by ArtsBridge student, classroom teacher, and UCLA faculty members. P/NP or letter grading.


119B. Theater for Child Audience: Performance. (4) Lecture, two hours; studio, four hours. Prepara- tion: audition prior to first class meeting. Designed to provide opportunity for students to work together as ensemble in creating theatrical presentation for young audience. Emphasis on testing theoretical concepts through ensemble work, re- harsal, pretesting, and evaluation of original produc- tion for possible presentation outside classroom. P/NP or letter grading.

120A-120B-120C. Acting and Performance in Film. (5-5-5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of perfor- mance-driven films, class discussion, and acting ex- ercises, examination of methods, styles, and perfor- mances of some of world's most highly regarded ac- tors and their work. Letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisite: course 20. Courses 160, 163A, 163B, and 163C can be taken concurrently. Workshop that pro- vides students with opportunity to rehearse, perform, and receive criticism. May be repeated once for credit. P/NP or letter grading.


124A-124B-124C. Voice and Speech I. (1-1-1) Studio, three to four hours. Study of acting and speaking with emphasis on vocal and physical techniques. Class each day is divided into warm-up for voice and movement and a lecture on some aspect of the field. Performance of a monologue and an advanced acting problem. May be repeated once for credit. P/NP or letter grading.

125A-125B-125C. Movement and Combat I. (1-1-1) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.

125D-125E-125F. Movement and Combat III. (1-1-1) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.


128A-128B-128C. Acting, Voice, and Movement Workshops I. (2-2-2) Studio, six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

128D-128E-128F. Acting, Voice, and Movement Workshops II. (2-2-2) Studio, six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

130A. Fundamentals of Playwriting I. (5) Lecture, three hours; discussion, one hour. Study and analysis of dramatic structure, characterization, and narrative leading to guided experiments. May be repeated for credit. Concurrently scheduled with course CM229. P/NP or letter grading.

130B. Fundamentals of Playwriting II. (4) Lecture, three hours plus conference. Requisite: course 130A. Study of original material for theater, its preparation and development. Designed to give further insight into critical and creating aspects of short and full-length plays and guidance in completion of one-act and full-length plays. May be repeated twice for credit. P/NP or letter grading.

130C. Writing for American Musical Theater. (4) Lecture/laboratory, three hours. Study of practice and techniques used in writing libretto for musical theater: opening numbers, romance, subplots, and comedy. May be repeated once for credit. P/NP or letter grading.

131A-131B-131C. Intermediate Playwriting. (5-5-5) Lecture, three hours. Letter grading. 131A. Play Strategies and Styles. Requisite: course 120 or 130A. Exploration of play forms and writing of one-act play. 131B. One-Act Play. Requisite: course 131A. Preparation and writing of one-act play and/or outlining of full-length play. May be repeated twice for credit with consent of instructor. 131C. Full-Length Play. Requisites: courses 131A, 131B. Preparation and writing of full-length play. May be repeated twice for credit with consent of instructor.


133A-C133B-C133C. Script Development Workshops. (4 to 8 each) Lecture, three hours; studio, four to 24 hours. Concurrently scheduled with course C443A-C443B-C443C. 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. Consecutive enrollment with same instructor not permitted. Total units for courses 136, 137A, 137B, and 137C may not exceed 12 units. Letter grading.

137A-137B-137C. Continuum Study in Acting for Stage. (4-4-4) Studio, six hours. Requisite: course 123. Technique of characterization and performance in advanced and complex acting styles. Each course may be repeated once for credit. P/NP or letter grading.

138. Special Problems in Performance Techniques. (4) Studio, four hours. Study of complex problems in voice, movement, and acting. May be repeated twice for credit. P/NP or letter grading.

139. Play Reading and Analysis. (5) Lecture, three hours. Investigation of dramatic texts, with focus on play structure, plot, character, dialogue, ideas, and various other elements of theatrical interpretation and realization. Letter grading.

140A. Introduction to Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language. May be repeated once for credit. Concurrently scheduled with course C440B. Letter grading.

140B. 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 C440C. Letter grading.

140C. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Advanced projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440C. Letter grading.

141A-C141B-C141C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C444A-C444B-C444C. Letter grading.

141A. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, production, and delivery of audio, and effects and music tracks for the theater sound design. May be repeated once for credit. Letter grading.

141B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on auditory, visual, and technical elements of sound. Study of design of multitrack recording techniques and the role of music in theater. May be repeated once for credit. Letter grading.

141C. (4) Lecture, four hours; laboratory, four hours. Study and practice in recording and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in theater. Study of creation of sound effects, control of MIDI data, and design techniques for music theater. May be repeated once for credit. Letter grading.

142. Costume Design for Theater. (4) Lecture/laboratory, four hours. Design of costumes for theatrical presentations. Study of use of silhouette, fabrics, color, and decoration as related to theatrical characterizations. May be repeated once for credit. P/NP or letter grading.

146A-C146B-C146C. Art and Process of Entertainment Design. (4-4-4 to 8) Lecture. Conceptualization, design, and prototyping of interactive theatrical events. Each course may be repeated once for credit. Concurrently scheduled with courses C446A-C446B-C446C. Letter grading.

146A. (4) Lecture, three hours. Exploration of original forms of media-rich entertainment experience through exercises, presentations, and participation. Students form collaborative teams to conceive and propose interactive entertainment events. May be repeated once for credit. Letter grading.

146B. (4) Lecture, three hours. Prototype development; two to five proposals to be completed and evaluated. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit. Letter grading.

146C. (4 to 8) Lecture, three to six hours. Prototype development; conceptual refinement and technological realization of prototypes, that may entail creation of elaborate proposals containing storyboards, budgets, and models or may involve production of short performances demonstrating entertainment potential of concepts or prototypes. May be repeated once for credit. Letter grading.

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.

147B. Drawing Scenery. (4) Studio, four hours. Introduction to course in basic sketching, color, line, and composition, by hand, scenic design for theater. Letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretation of drama through design, including study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Investigation of techniques for realization of designs in production. Letter grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including performance in project or production, stage management, member of crew, or assignment as designer or assistant on production. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Imagery as integral to design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C451A. Letter grading.
C151B. Scenic Design for Theater. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Study of scenic design for proscenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C451B. Letter grading.

C151C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multicamera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C451C. Letter grading.


C153C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Study of current professional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated once for credit. Concurrently scheduled with course C453C. Letter grading.


C154B. Sound Design for Theater. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C154C. Sound for Film and Television. (4) Lecture/ studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization in the film and television. Concurrently scheduled with course C454C. Letter grading.

C155A-C155H. Graphic Representation of Design. (2 each) Studio. Concurrently scheduled with courses C455A-C455H. Letter grading:

C155A. 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. Letter grading.

C155B. Watercolor Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of watercolor techniques and their application to interpretation of scenic designs, including painting of brick, wood, stone, fabric, and other surfaces. Letter grading.

C155C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as means of communication for scenic and costume designers. Letter grading.

C155D. Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of model for reproduction of initial working prototypes to finished color models. Use of wide variety of materials and techniques for execution of model. Letter grading.

C155E. Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Letter grading.

C155F. Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for rendering costumes with emphasis on figure, clothing, and fabrics. Letter grading.

C155G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and materials and their realization of color and form. May be repeated once for credit. 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. Letter grading.


C157A-C157B-C157C. Costume Construction Techniques. (2-2-2) Studio, four hours. Study of theory and application of stage dressing, 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 C457A-C457B-C457C. P/NP or letter grading.


160. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Required of Theater majors. Course 21 may be taken concurrently. Basic theories of play direction and application through preparation of scenes under rehearsal conditions. P/NP or letter grading.


163A. (4) Lecture/studio, four hours. Requisite: course 15. Intensive development of primary directing skills and process, including text analysis and exploration of stage movements, actor/actor communication and effective staging. Students direct scenes from plays under laboratory conditions. Letter grading.


163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisite: course 163A. Study of one-act play. Application of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C293D. 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.

Theater / 645
171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in public presentation of departmental projects. 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 projects related to public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

172. Production Practice in Theater, Film, Video, and Digital Media. (1 to 6) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for a maximum of 12 units. P/NP or letter grading.

173A. Design Assignment: Assistant Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as assistant designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

174A. Stage Managing Techniques. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as stage manager, including participation as assistant stage manager in professional, musical, and experimental phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (3) Studio, nine hours. Requisite: course 174A. Laboratory experience in professional duties of assistant stage manager, including participation as assistant stage manager in professional, musical, and experimental phases of productions. May be repeated once for credit. Letter grading.

175A-175C. 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 hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.


178. Senior Project. (4) Lecture or studio, three hours. Requisites: courses 101A, 101B, 101C. 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 practice, career entry, and development for actors. P/NP or letter grading.

182. 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 production styles to which performers may need to adjust are (1) preproduction rehearsals with director, (2) single-camera experience, and (3) multi-camera, studio production. May be repeated twice for credit. Letter grading.

185A. 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.

185B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Study of artistic, economic, and legal criteria in administration of educational and community theater. Concurrently scheduled with course C285B. P/NP or letter grading.

186. Art Alive: Art and Improvisation in Museums. (4) Seminar, four hours. Offered in collaboration with Los Angeles County Museum of Art (LACMA). Interpretation of art in collection through acting, dialogues, movement, and music. Research into history and art history and artistic production of creative performance piece required. P/NP or letter grading.

195. Corporate or Community 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 specialties. Concurrently scheduled 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, 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

202A. Seminar: Western Classical Theater. (4) Seminar, three hours. Designed for graduate students. Examination of theatrical production and dramatic form in Greek and Roman periods. May be repeated twice for credit. S/U or letter grading.

202B. Seminar: Medieval Theater. (4) Seminar, three hours. Designed for graduate students. Selected studies of theatrical production and dramatic form in Middle Ages. May be repeated twice for credit. S/U or letter grading.

202C. Seminar: Renaissance and Baroque Theater. (4) Seminar, three hours. Designed for graduate students. Selected studies in theater architecture, theatrical production, and dramatic form in English and Continental theater from 1485 to early 18th century. May be repeated twice for credit. S/U or letter grading.

202D. Seminar: Bourgeois and Romantic Theater. (4) Seminar, three hours. Designed for graduate students. Selected studies in theater architecture, theatrical production, and dramatic form in English and Continental theater from 1700 to 1870. May be repeated twice for credit. S/U or letter grading.

202E. Seminar: Modern Consciousness in Theater. (4) Seminar, three hours. Designed for graduate students. Study of prototypes of modern experience as encountered in work of Ibsen and Strindberg. May be repeated twice for credit. S/U or letter grading.

202F. Seminar: Modern Realism. (4) Seminar, three hours. Designed for graduate students. Selected studies of theater’s response to science and technology, politics, and revolution. May be repeated twice for credit. S/U or letter grading.

202G. Seminar: Modern Theatricalism. (4) Seminar, three hours. Designed for graduate students. Selected studies in symbolism and avant-garde theater. Exploration of dream experience and private psyche, religious experience, and revitalization of myth and ritual. May be repeated twice for credit. S/U or letter grading.

For more information or to schedule an appointment, please contact the office at 310-825-2100.
210. Topics in World Theater and Drama. (5) Seminar, three hours. Designed for graduate students. Investigation of selected topics in world theater, drama, and performance. May be repeated four times for credit. 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 identificatory structure between audience member or scholar and theatrical or performance object. Letter grading.

220. Graduate Forum. (1 to 4) Seminar, one to four hours. Limited to graduate theater students. Presentation and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Investigation of performance as sustained practice in traditional disciplines such as theater, music, and dance and as lens to focus thinking about performance experience in fields such as philosophy, literature, cultural anthropology, linguistics, education, and law. Emphasis on establishing interdisciplinary dialogue among many fields. Letter grading.

224A-243B-243C. Scenic Design. (4-4-4) Studio, 24 to 30 hours. Designed for graduate students. Creative participation in preparation and presentation of theatrical production. Each course may be taken for maximum of 8 units. Letter grading.

245A. Production Management. (4) Lecture, three hours. Study in production management for theater. Examination of professional duties of production manager, including preproduction, rehearsal, and performance phases of productions. Problems of resource management, unions, organization, scheduling, and budgeting while maintaining creative and collaborative environment. Letter grading.

245B. Production Budgeting. (5) Lecture, three hours; studio, 12 to 15 hours. Requisite: course 245A. Advanced study in production management for theater, with focus on planning process of professional production manager in season planning. Emphasis on one or more aspects of production and postproduction practice for entertainment media, including theater, film, and digital media. May be repeated for credit. S/U grading.

245C. Projects in Production Management. (4) Lecture/laboratory, three hours; studio, 12 to 15 hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. History survey and in-depth exploration of periods with study of influences of diverse cultures. Letter grading.

246A-246B-246C. History of Costume. (4-4-4) Lecture/laboratory, four hours. Designed for graduate students. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. History survey and in-depth exploration of periods with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. History survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

247. Collaborative Project in Design and Production. (3 to 4) Studio, four hours. Designed for graduate students. Collaborative project in design, including analysis, conceptual development, and preparation of scenic, lighting, costume, or sound designs. May be repeated once for credit. Letter grading.

260. Directing I. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Development of directorial processes of sequencing, staging, story, and character, with an emphasis on understanding and critiquing through medium of written preparations and directing of scenes. Letter grading.

261. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems of post-realistic plays through interpretation and laboratory scene work. Letter grading.

262. 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. Requi- sites: courses 163A, 165B, 163C. Application of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with courses C163A, C163B, C163C, and 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 material through medium of laboratory scene work. 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; repetition of laboratory and other forms of representation. Letter grading.

266. Theatrical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of theatrical conceptualization in interpretation of dramatic text; exploration of range of possibilities inherent in different theatrical spaces and options in design components. Consideration of visual arts and music as sources of stimuli for theatrical conceptualization and on collaborative aspect of theatrical production. Letter grading.

272. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Investigation of selected topics in world theater, drama, and performance linked to plays and performances appropriate to approach. Letter grading.


285B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Designed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theatre. Concurrently scheduled with course C185A. S/U or letter grading.

298A-298B. Special Studies in Theater Arts. (2 or 4 each) Lecture/discussion, two or four hours. Designed for graduate students. Seminar study of problems in theater arts, organized on topic basis. Each course may be taken twice for credit. S/U or letter 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 faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

420A-420B-420C. Advanced Acting I. (4 to 8-4-4) Studio, six hours. Letter grading.

420A. (4 to 8) Studio, six to 18 hours. Development of internal technique, beginning with a monologue that is dramatization of one’s personal history. Scene work follows, with emphasis on off-stage preparations, improvisations capturing character, and intentions of scene. Letter grading.

420B. (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 out into real world and fieldwork on character being played. Letter grading.

420C. (4) Studio, six to 18 hours. Development of external technique through comedy and of skits, improvisation, physical humor, delivery of lines, rhythm, timing, and public cabaret. Free essay and use of action and objective with external. Letter grading.

421A-421B-421C. Advanced Acting II. (4 or 8 each) Studio/laboratory, six to 18 hours. Letter grading.

Shakespeare and oneself to play him. 421B. Continued character behavior study through language and movement. Further work on actions, objectives, and relationships. 421C. Comedy workshop. Exploration of craft of comedy and development of character pieces.

422. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. Intensive performance experience. May be repeated for maximum of 24 units. Letter grading.


424A-424B-424C. Advanced Voice and Speech I. (2 or 4 each) Studio/laboratory, three to six hours. Development of voice and speech techniques for stage, including those of relaxation, breathing, resonance, and development of speaking voice. Speech training uses International Phonetic Alphabet to train students in standard American speech. Text work in poetry and prose. Letter grading.

424D-424E-424F. Advanced Voice and Speech II. (2 or 4 each) Studio/laboratory, three to six hours. Advanced voice problems. Extension of first-year work with increased demands on voice, range, resonance, and breathing capacity extension. Articulation and phonetic alphabet. Text work in classical verse. Letter grading.

424G-424H-424I. Advanced Voice and Speech III. (2 or 4 each) Studio, three to six hours. Extension of second-year work, with increased demands on voice/speech, range, resonance, and breathing capacity extension. Articulation and phonetic alphabet to creation of dialect and accents, as well as systematic approach to creating dialect charts. Letter grading.

425A-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 Aweakening of imagination while exploring worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

425D-425E-425F. Advanced Movement II. (2 or 4 each) Studio, three to six hours. Presentation of more complete picture of stage movement and its relationship to theater, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in technique 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 discipline: 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 use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and expansion of movement potential. Letter grading.

429. Performance Workshops. (2) Studio, four hours. Limited to graduate students not enrolled in M.F.A. acting program. Exercises in performance techniques, including autodrama and scene study. Development of practical skills through scene study, use of self, and personalization. Examination of character exercises and their application to scenes. Letter grading.
tertainment design. Review and evaluation of projects by design faculty members from all areas of curricu-

um. Letter grading.

C451A. Scenic Design. (4) Lecture/studio, four hours. Study of role of director, scenic design for single-camera and multi-
camera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C151A. Letter grading.

C451B. Scenic Design for Theater. (4) Lecture/ studio, four hours. Study of scenic design for prosce-
nium, thrust, and arena configurations, set detec-
tion, and music theater. May be repeated once for credit. Concurrently scheduled with course C151B. Letter grading.

C451C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of roles of artist, scenic design for single-camera and multica-

mera production, and set decoration. May be repeated once for credit. Concurrently scheduled with course C151C. Letter grading.

C452A. Lighting Design. (4) Lecture/studio, four hours. Study of lighting, with emphasis on imagina-
tion, text analysis, metaphor, and conceptualization. Investigation of design choices. Discussion and contro-

l of light and color in relation 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 prosce-
nium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


C453A. Costume Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text anal-

ysis, metaphor, and conceptualization. Investigation of design choices. Discussion and critique of work in progress. May be repeated once for credit. Concurrently scheduled with course C153A. Letter grading.

C453B. Costume Design for Theater. (4) Lecture/ studio, four hours. Study of costume design for prosce-
nium, thrust, and arena configurations, set design, and music theater. May be repeated once for credit. Concurrently scheduled with course C153B. Letter grading.

C453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current profes-
sional costume design and wardrobe practices in film and television, including effects of differing media on design choices. May be repeated once for credit. Concurrently scheduled with course C153C. Letter grading.

C454A. Sound Design. (4) Lecture/studio, four hours. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice of techniques for recording, editing, and creating soundscapes. May be repeated once for credit. Concurrently scheduled with course C154A. Letter grading.

C454B. Sound Design for Theater. (4) Lecture/ studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and mixing equipment for theater and reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for mus-
cial theater. May be repeated once for credit. Con-
currently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (4) Lecture/ studio, four hours. Study of current professional sound recording, rerecording, mixing, and synchroni-


C455A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate visual intentions, including one- and two-point perspective, form, light, shade, and textures. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. Letter grading.

C455B. Watercolor Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of watercolor techniques as they relate to interpretation of scenic designs, including painting of brick, wood, stone, fab-

rics, and other surfaces. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. Letter grading.

C455C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as means of commu-
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nication for scenic and costume designers. Letter grading.

C455D. Model Making. (2) Studio, four hours. Requi-
site: course 147A or 147B. Study of model for repre-
sentation of scenic designs from initial working proto-
types 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. Letter grading.

C455E. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as means of commu-
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nication for scenic and costume designers. Letter grading.

C455F. 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. Letter grading.

C455G. Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and materials and their re-
alization of color design and elevations. May be re-
peated once for credit. Letter grading.

C455H. Selected Topics in Graphic Representation of Design. (2) Studio, six hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Letter grading.

C456A. Introduction to Computer-Assisted Draft-
ing. (4) Studio, four hours. Requisite: course 147A. In-

vestigation of drafting and editing techniques, drawing of floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C156A. Letter grading.

C456B. Advanced Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investiga-
tion of drafting techniques for scenic and lighting de-
signs using AutoCAD. Concurrently scheduled with course C156B. Letter grading.

C456C. Computer-Assisted Rendering. (4) Studio, four hours. Investigation of three-dimensional lighting and scenic design visualization: wire-frame per-
spective drawing and photo-realistic computer ren-
dering techniques using three-dimensional studio. Concurrently scheduled with course C156C. Letter grading.

C456D. Introduction to Computer-Assisted Draft-
ing. (4) Studio, four hours. Requisite: course 147A. In-

vestigation of drafting and editing techniques, drawing of floor plan sections, and elevation drawings using Vectorworks. Concurrently scheduled with course C156D. Letter grading.

C456E. Advanced Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investiga-
tion of drafting techniques for scenic and lighting de-
signs using Vectorworks. Concurrently scheduled with course C156E. Letter grading.

C456F. Introduction to Computer-Assisted Ren-
dering. (4) Studio, four hours. Investigation of three-
dimensional lighting and scenic design visualization: wire-frame perspective drawing and photo-real-

istic computer rendering techniques using Vector-
works. Concurrently scheduled with course C156F. Letter grading.

C457A-C457B-C457C. Costume Construction Techniques. (2-2-2) Studio, four hours. Study of theory and application of drafting, pattern making, fit-
ting, and construction techniques for period cos-

tumes, and undergarments. Study of period-specific ap-
ppearing costume using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C157A-C157B-C157C. S/U or letter grading. C457A. Introduction to costume drafting, construction of period undergarments. C457C. Requi-
site: courses C457A, C457B. Draping, patterning, and fitting techniques for period garments.

C458A. Scenic Design Technology. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Investigation of materials, systems, and tech-
niques for realization of scenic designs for theater, film, and television. Study of advanced techniques and materials for construction, finishing, and rigging of scenery and properties. Concurrently scheduled with course C158A. Letter grading.

C458B. Lighting Design Technology. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Investigation of materials, systems, and tech-
niques for realization of scenic designs for theater, film, and television. Study of design, operation, and performance of lighting instruments, dimming equip-
ment, and control systems, including automated fix-
tures, projection equipment, and computer systems for lighting. Concurrently scheduled with course C158B. Letter grading.

C458C. Sound Design Technology. (4) Lecture/ studio, four hours. Requisites: courses 14A, 14B, 14C. Investigation of materials, systems, and tech-
niques for realization of sound designs for theater, film, and television. Study of operation and perfor-
mance of equipment for recording, mixing, and repro-
duction of theater sound. Concurrently scheduled with course C158C. Letter grading.

C459A-459B. Directing for Theater, Film, and Televi-
sion. (4-4) Lecture, three hours. Limited to graduate students. Analysis of specific scenes, of differences and many similarities in di-

rectorial approach to same literary material in three media. S/U or letter grading.

C460AF-460AW-460AS. Contemporary Issues in Di-
rection. (1 to 8) Lecture, one to eight hours. Limited to graduate students. Discussion and critique of directing projects. Each course may be repeated for maximum of 4 units. Letter grading.

C460B. Problems in Advanced Direction for Stage. (4-4) Studio, to be arranged. Limited to M.F.A. candidates. Discussion and critique of work in prog-

ress. S/U or letter grading. 460B. Preparation and presentation of published play under rehearsal condi-
tions. 460C. Preparation and presentation of full-
length original play under rehearsal conditions.

C462. Advanced Directing. (8 or 12) Studio, 12 or 30 hours. Designed for graduate students. Advanced problems in directing for theater, film, and television. May be repeated for maximum of 24 units. Letter grading.

C472. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postpro-

gramming.
duction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

474. Advanced Projects in Design and Production. (4) Lecture/studio, four hours. Study and practice in preparation and execution of designs for theater, film, video, and related entertainment forms. As contributing artist member of design team, creative responsibilities include designer, technical supervisor, or production manager. May be repeated for maximum of 16 units. Letter grading.

49SA-49SB-49SC. Practicum in Teaching Theater. (4, 8, or 12) Tutorial, to be arranged; discussion, two hours. Limited to Ph.D. students. Study and practice of teaching theater at university level. Orientation and preparation of graduate (Ph.D.) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to teaching experience. Letter grading.

498. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Tutorial, to be arranged; full or part-time at studio or on professional project. Designed for advanced M.F.A. students. Internship at various film, television, or theater facilities accen- tuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

501. Cooperative Program, (2 to 8) Tutorial, to be arranged; Preparatory: 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 Arts. (2 to 8) Tutorial, to be arranged. May be repeated for maximum of 12 units. S/U grading.


ment, and many graduates have found positions in Latin America, Africa, and Asia. The program offers an undergraduate minor in Urban and Regional Studies, a two-year Master of Urban and Regional Planning (M.U.R.P.) degree, and a Ph.D. degree. Concurrent degree programs allow students to combine study for a M.U.R.P. in Urban Planning with work toward an M.B.A. in the Anderson Graduate School of Management, a J.D. in the School of Law, an M.Arch. I in the Department of Architecture and Urban Design, an M.A. in Latin American Studies, or an M.P.H. in the Fielding School of Public Health.

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.

Undergraduate Study

Urban and Regional Studies Minor

The scale, diversity, balkanized governance, and natural environment of Southern California all contribute to making it an extraordinary national 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.

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 120 or 121 with a grade of C or better. An introductory course in geography, political science, or sociology is recommended. For further information, contact the program director/counselor at (310) 206-8966.

Required Courses (28 units): (1) Urban Planning 120 or 121 with a grade of C or better; (2) five elective courses selected as follows: (a) at least three courses from Public Policy 10A, 104, C115, M120, C147, Urban Planning 120 (unless taken under item 1), 121 (unless taken under item 1), 130, C133, 141, M150, M160, M165, M175, C184 and (b) up to two courses from Anthropology 167, Chicana and Chicano Studies 181, Geography 150, History 145A, 145B, Management 175, Sociology 158 (students may petition to include a Luskin School of Public Affairs course not listed above to fulfill an elective requirement); (3) capstone project (either a letter grade course or an independent study). The capstone project may be satisfied by one of the following: (a) Urban Planning 185SL—service learning project or (b) Urban Planning 199 or a 199 in the College of Letters and Science with a faculty mentor affiliated with this minor—individual research project.

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.

Graduate Study

Official, specific degree requirements are delineated in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees


Urban Planning

Upper Division Courses

120. Introduction to Cities and Planning. (4) Lecture, three hours. Survey of urban history and evolution in U.S. and other societies, current trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and sector analysis and sector grading. 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.

122. Policy, Planning, and Community. (4) Same as Asian American Studies M108B. 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, 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 governing urban development. 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, economic aspects of scale, and specialization by cities and transportation. P/NP or letter grading.

C133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concurrently scheduled with course C233. P/NP or letter grading.

C137. Southern California Regional Economy. (4) Same as Labor and Workplace Studies M180. Lecture, three hours. Examination of 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 Los Angeles region and guest lectures by regional experts included. Concurrently scheduled with course C237C. Letter grading.

M140. Issues in Latina/Latino Poverty. (4) Same as Chicana and Chicano Studies M121 and Labor and Workplace Studies M121. Lecture, four hours. Examination of nature and extent of urban and rural poverty confronting Latina/Latino population in U.S. Special emphasis on antipoverty policies of government and nonprofit organizations and social planning and economic development strategies. Attention also to literature on underclass. Letter grading.

141. Planning with Minority Communities. (4) Lecture, three hours. Overview of planning history, theory, and contemporary issues that affect low-income communities, communities of color, 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.

150. Transportation Economics. (4) Lecture, three hours. Big cities offer many attractions, but high density also produces traffic congestion and air pollution. Can we have dense urban areas without congested traffic and polluted air? Analysis of economic explanations for transportation problems and examination of possible solutions. Because university campuses resemble small cities, they are used as examples to explore various transportation issues (such as BruinGO at UCLA) that universities have adopted to improve transportation. Letter grading.

M160. Environmental Politics and Governance. (4) Formerly numbered C160. Same as Environment M164B. Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.

M162. Land Use and Development. (4) Same as Environment M162B. Lecture, four hours. Examination of institutional and historical evolution of land use in U.S. Comparison and contrasting of how cities have evolved in different parts of U.S. and some recent
199. Special Topics in Planning Theory. (4) Lecture, three hours. Special topics in planning theory selected by faculty members. May be repeated for credit. S/U or letter grading.

200. Development of fundamental skills of graphic ideation. (4) Lecture, three hours. Topics in built environment selected by faculty members. May be repeated for credit. S/U or letter grading.

204. Advanced Research Design. (4) Seminar, three hours. Required of all Ph.D. students who have passed their field examinations but have not yet advanced to candidacy, and all M.U.R.P. 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 hypotheses, and selecting methodology and plan for testing hypotheses. Students complete and orally defend their dissertation/thesis proposal. May be repeated for credit. S/U or letter grading.

208. Seminar, three hours. Introduction to law as urban system, directed reading, and research given first day of course 220A. Introduction to mathematical and statistical concepts and methods with applications in urban planning. Review of basic mathematical concepts fundamental to planning methodology, 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 statistical analysis and modeling. Letter grading.

212. International/Comparative Planning Workshop. (2 or 4) Seminar, three hours; field trips, five to ten 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, transportation, 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. Experience 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. Working in teams students develop quantitative neighborhood profiles that can be used in community planning and at other geographical levels (e.g., cities, counties, and regions). Students gain proficiency in use of GIS, statistical software, and other tools that can be used in neighborhood analysis and planning, and produce product that can be used in planning, and can be shared with community groups. Knowledge of fundamental statistical concepts and analysis important. Letter grading.


217A-217B. Comprehensive Planning Project. (4-6) Seminar, three hours. Designed for second-year students. Comprehensive project brings together student groups of varying backgrounds and interests in joint solution of urban planning problem. Each project spans two years. Students develop comprehensive product that benefits larger community. Data management and analysis, including accessing, cleaning, and presenting data. 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 course 220A. Introduction to mathematical and statistical concepts and methods with applications in urban planning. Review of basic mathematical concepts fundamental to planning methodology, 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 statistical analysis and modeling. Letter grading.

220B. Quantitative Analysis in Urban Planning II. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: 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, regression and simple and multiple regression. Use of computer as tool in statistical analysis and modeling. Letter grading.

221A. Introduction to Planning History and Theory. (4) Lecture, three hours. Required of first-year Ph.D. students, typically for 220B. Preparation: required of first-year Ph.D. students who have not completed comparable graduate course in planning history and theory. Exploration of planning thought and practice over time in terms of selection of principles, so that students develop facility to interact with law and lawyers in positive and forceful manner. S/U or letter grading.

222B-222C. Advanced Planning Theory and History I, II. (4-6) Lecture, three hours. Required of first-year Ph.D. students. Major ideas and theories of planning that have influenced its development from early 19th century to present. Letter grading.

225. Visual Communication Skills. (2) Five-week course. Lecture, two hours; laboratory, one hour. Greater emphasis on graphic presentation and visual communication to educate stakeholders, advocate for change, and encourage participation in planning process in recent years, in both public and private sector. Visual communication requires analytic skills and strategic thinking, strong foundation in design theory, and technical skills in computer programs. Introduction to Adobe InDesign and Illustrator and foundation in design theory and communication. How to use graphic design and presentation programs (i.e., Adobe InDesign, Adobe Illustrator, PowerPoint) to create attractive and powerful planning materials and reports, design principles to communicate ideas in clear, succinct, and engaging manner, and when and how to use graphic materials to support verbal presentations or written reports. Letter grading.

229. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

230. Introduction to Regional Planning. (4) Same as Public Policy M241.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, examination of disaster management and response in both U.S. and developing countries. Exploration of how disaster impacts and risk reduction both relate to economic, vulnerability, and political factors, in addition to acts of nature. Structured to allow students to focus on contexts and themes as set out in reading and weekly sessions. Letter grading.

233. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy. Major emphasis on American urban problems and restructuring of modern metropolises. Topics include historical geography of urbanization, development and transformation of urban spatial organization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concurrently scheduled with course C133. S/U or letter grading.

234A. Development Theory. (4) Formerly numbered 234A.) (Same as Geography M229A.) Lecture, three hours. Review of basic literature and schools of thought on development theories and analysis of impact of mercantilism, colonialism, capitalism, and socialism on various urban and rural social and economic structures in Third World. Presentation, through illustration of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and urban and rural impacts. Gives students important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

234B. Ecological Issues in Planning. (4) Formerly numbered 234B.) (Same as Geography M229B.) Lecture, three hours. Preparation: course M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how to address these questions in world-historical context and between contradiction of sustainability and bifurcation of wild, ecological and human environments. American environmentalism has become dominant model for many conservation practices. Informed by Muirist model of idea of untrammeled nature with people-less set-asides for spiritual and scientific contemplation of nature; this approach used in environmental policy and as key idea in conservation and idea of wilderness. 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.

234C. Resource-Based Development. (4) Same as Geography M229C.) Lecture, three hours. Recommended preparation: course M234A. Some major issues associated with development of 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.


236A. Theories of Regional Economic Development I. (4) Same as Geography M236A and Public Policy M240.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of capital from regional perspective, process of regional growth and decline, regional levels of economic development, relations between rich and less developed regions. Letter grading.

236B. Regionalization and Local Development. (4) Formerly numbered 236B.) (Same as Geography M236B.) Lecture, three hours; laboratory, one hour. Preparation: course M236A. Application of theories of regional economic development, location, and trade learned in course M236A to contemporary process known as globalization.
tion. Examination of nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.


237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Introduction to methods and procedures of sectoral analysis as applied to re-
gions, industries, companies, and their labor forces. Current theories and conceptions of industrial structure and industrial change. Investigation of character-
stics and trends of industry subsectors in Los An-
geles resulting in industry profile that can serve as aid to planning and shaping economic development. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in U.S. Because economic development strategies seek to modify or shape existing conditions, focus on how policies and programs are developed and the economic environments and social systems in which they are pursued. Letter grading.

237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key eco-
nomic 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. Concur-
rently scheduled with course CM137. Letter grading.

238. Global Labor Markets. (4) Lecture, three hours. Consideration of national programs, policy, and strategy in international and comparative context. Re-
view of major approaches to improving quality, quan-
tity, and access to jobs, including training, regulation, migration, labor market 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.

240. Local Government. (2 to 6) (Same as Law M235B.) Lecture, analysis of structure and function of local, regional, and state government in his-
torical and institutional context: organization, fi-
nance, intergovernmental relations, role of judiciary, public sector management, citizens, political parties, process through initiatives and referenda, and government tort liabil-
ity. Letter grading.

241. Foundations of Social Welfare Policy. (4) (Same as Public Policy M260 and Social Welfare M221A.) Lecture, two hours; discussion, one hour. Nature, roles, and history of welfare institutions in dif-
ferent societies; applicable social system theory of different components of welfare system; theory and research on welfare policies and organizational forms. S/U or letter grading.

242. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality in U.S.—dynamics of urban growth, living and causes of spatial inequality, and implications of spatial inequality for low-income commu-
nities. Topics include concentrated poverty, resi-
dential segregation, immigrant neighborhoods, spatial disparities in access to opportunities, housing mo-
bility, neighborhood health and safety, urban infra-
structure, and political cohesion and participation. Analysis of role of policies in promoting and/or re-
ducing spatial inequality. Letter grading.

243. Privatization, Regulation, and Public Fi-
ance. (4) (Same as Public Policy M293.) Lecture, three hours; outside study, nine hours. Requisite: Public Policy 201. Evaluation of economic and polit-
ical determinants of trend toward privatizing public

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Studio, three hours. Students of different backgrounds and interests colla-
borate to examine and propose solutions for actual transportation planning and urban design problem. Course simulates real-world profes-
sional planning project of type that students might be assigned in professional practice. Working with firms or public agencies. Students acquire ability to collect and syn-
thesize evidence typically marshaled by transporta-
tion planning and urban design professionals, urban and regional analysis capabilities, design and physical planning skills, and data analysis and design present-
ation and re-presentation abilities. Letter grading.

253. Travel Behavior Analysis. (4) (Formerly numbered M245.) (Same as Public Policy M253.) Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 and 230. Descriptions of travel pat-
terns in metropolitan areas, recent trends and projec-
tions into future, overview of travel forecasting methods, trip generation, trip distribution, mode split traffic assignment, critique of traditional travel fore-
casting methods and new approaches to travel be-

254. Bicycle and Pedestrian Planning. (4) Lecture, three hours. Walking and bicycling are essential com-
ponents of sustainable transportation systems. In re-

255. Transportation Policy and Planning. (4) (Same as Public Policy M244.) Lecture, three hours. Introduction to analysis, management, and operation of transportation systems. Topics include evaluating transportation system performance, causes and man-
agement of traffic congestion, transportation systems and demand management, complete streets, goods movement, shipping, aviation, and high-speed rail policy and planning, public transportation planning, transportation services for elderly and disabled, and intelligent transportation systems. Letter grading.

256. Transportation Economics, Finance, and Policy. (4) (Formerly numbered M255.) (Same as Public Policy M222.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, con-
trasting and privatization of transit services. Letter grading.

257. Transportation and Economic Outcomes. (4) (Formerly numbered 258.) Lecture, three hours. Ex-
amination of equity issues related to urban transpor-
tation, with focus on complex relationships among urban spatial structure, transportation (travel patterns and transportation investments), and economic outcomes. Role of transportation in improving economic outcomes for low-income and minority households and communities. Letter grading.

258. Transportation and Environmental Issues. (4) (Same as Public Policy M259.) Lecture, three hours. Regulatory structure linking transportation, air quality, and energy issues, chemistry of air pollution, overview of transportation-related approaches to air quality enforcement; new tailpipe standards; ve-

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porate average fuel economy and global warming is-
ues; growth of automobile worldwide fleet; automo-
ible in sustainability debate. Letter grading.

260. Environmental Politics and Governance. (4)
(Formerly numbered C260.) Lecture, three hours, En-
vironmental planning is more than simply finding
problems and fixing them. Each policy must be nego-
tiated within multiple, overlapping systems of
institutions. Governance and politics matter deeply.
Overview of how environmental governance
works in practice and how it might be improved.
Letter grading.

261. Land-Use Planning: Processes, Critiques, and
Innovations. (4) Lecture, three hours. Understanding
of techniques, processes, strategies, and dilemmas of
land-use planning. Despite strong criticisms and
demonstrated shortcomings, land-use control re-
mains integral part of planning practice. How does
land-use control work? How has it evolved? What are
problems with traditional land-use control mecha-
nisms? How well do innovations in land-use planning
address criticisms? What is role of land-use planning
in good society? S/U or letter grading.

262. Urban Environmental Problems: Water Re-
sources. (4) Lecture, three hours. Water is life and
wealth in today's world. What has world's most exten-
sive long-distance, interbasin water transfer system.
To date, water resources planning has been devoted al-
most exclusively to building facilities for water deliver.
But conflicts over additional development have gen-
tically precluded further extension of this system, de-
spite growing pressures to increase supplies. Exam-
ination of environmental impacts, geography, use of water, and considera-
ion of resource planning. S/U or letter grading.

M263. Introduction to Environmental Policy. (4)
(Formerly numbered 263.) (Same as Public Policy M252.)
Lecture, three hours. Introduction to basic concepts and methods of environ-
mental analysis covering variety of topics with cross-disciplinary per-
spectives. Development of ability to analyze major en-
vironmental resource issues as well as to read, discuss, and write critically about environmental policy. Letter grading.

264A-264B, Environmental Law. (264A: 3 or 4/
264B: 1 or 2) (Formerly numbered M264A.) Lecture,
three hours. Course 264A is enforced requisite to 264B.
Examination of field of environmental law through analysis of various legal issues and public policy; legal consequences of public decision-making strategies, and identification of primary responsible for various environmental decisions. Focus on air pollu-
tion and Clean Air Act as means of illustrating policy issues underlying field. Concurrently satisfied with Law 260A. In Progress (264A) and S/U or letter (264B) grading.

M265. Environmentalisms. (4) (Formerly numbered 265.)
(Same as Geography M265.) Lecture, three hours; discussion, one hour. Review of environmental theories and their practices in dynamic U.S. and in-
ternational contexts. Issues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of prob-
lems of experiencing internationalization (or interna-
tional implications) of environmental practices as part of both green and black economies. What does inte-
gration of environmental planning look like in this cen-
tury? Letter grading.

C266. Global Environment and Development:
Problems and Issues. (4) Lecture, three hours; dis-
cussion, one hour. Questions of population, resource use, and environmental impacts of global economic restructuring and its connections to changing organization of production and resulting environmental impacts. Case studies from Africa, Latin America, Asia, and U.S. Concurrently scheduled with course CM166. S/U or letter grading.

M267. Environmental and Resource Economics
and Policy. (4) (Same as Public Policy CM250.)
Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 208A. Survey of basic economic princi-
ples is used to define, analyze, and resolve prob-
lems of environmental management. Overview of ana-
lytical questions addressed by environmental econo-
mists that bear on public policies. Letter grading.

M268. Political Economic and Geographical
Technologies. (4) (Same as Public Policy M268.)
Lecture, three hours. Acquisition and utilization of eco-
omic, finance, planning, and policy analytic tools and
strategies for public decision-making: adoption from early to middle market phases. Rooftop solar,
electric vehicle, and energy efficiency as focal exam-
iples, with emphasis on role of policy and planning in-
centives intended to spur adoption. Letter grading.

269. Special Topics in Environmental Analysis
and Policy. (4) Lecture, three hours. Topics in environ-
mental analysis and policy selected by faculty mem-
b. May be repeated for credit. S/U or letter grading.

M270. Homelessness: Housing and Social Service
Issues. (4) (Same as Social Welfare M206A.) Lecture,
90 minutes; discussion, 90 minutes; one field trip. Re-
view of current status of homelessness: who home-
less are, what social services and housing are avail-
able, existing and proposed programs—appropriate architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.

271. Community Economic Development. (4) 
Lecture, three hours. Introduction to fundamentals of community economic development and neighbor-
hood revitalization from view of basic app-
roaches, important concepts, resources and lan-
guage of field, and major strategies for revitalization of low-income neighborhoods. 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. Recom-
manded for first-year students in community develop-
ment and built environment. Concentration on intro-
troduction to real estate development process specif-
cally geared to students in planning, architecture, and urb
and 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 fea-
ibility tests. S/U or letter grading.

273. Site Planning. (4) Lecture, 90 minutes; labora-
tory, 90 minutes. Requisite: course 274. Introduction
to 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. De-
signed for students with no prior physical planning background and for first-year M.A. students in com-

munity development and built environment; design and development, and transportation policy and plan-
ing concentrations. Introductory overview of phys-
ical planning, land use, site analysis, and surveys; regulatory structures and social/community impacts. Letter grading.

M275. Community Development and Housing Poli-
cies: 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. 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 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 Law M287.) Lecture, three hours. Course M276A is enforced requisite to 276B. Examination of past 40 years of federal and state programs to stimulate urban de-
cline and improve housing. In U.S.; comparison of how has both legal and policy initiatives in areas of public housing, housing segregation, mortgage subsi-
dies, landlord/tenant law, urban renewal, and commu-
nity organizing. Research paper required. In Progress (M276A) and S/U or letter (276B) grading.

277. Historic Preservation: Principles and Practic-
es. (4) Lecture, 90 minutes; discussion, 90 minutes. Overview of preservation field, including history and theory, current legislative and conservation planning, landmark and district surveys and designa-
tions, adaptive reuse, citizen involvement, and social issues, S/U or letter grading.

278. Unpaid Labor Market and Public Policy. (4)
Lecture, three hours. Central issues in urban econo-
mic development is jobs—how to create them, how to help disadvantaged populations get access to them, and how to ensure that they are adequate in quality in terms of wages, advancement, and skill de-
velopment. Examination of how urban labor markets work and what can be done to help them work better, with focus on U.S. Paid and low-wage, low-skill workers and marginalized groups, such as inner-city people of color and immigrants. Analyses of how urban labor markets work with discussions of policy options for making them work better and range of solutions, including job creation, workforce training, job ladder creation, union and community or-
ganizing, 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 sociology, architecture, and political/cultural factors that lie behind them. Letter grading.

280. Affordable Housing Development. (4) Lecture,
three hours. Requisites: courses 220A, 220B. Over-
view of basic concepts and skills utilized in nonprofit development initiatives, especially by community-
based organizations. Focus on nonprofit provision of subsidized housing, emphasizing ways professionals broker debt and equity funding from private, govern-
mental, and philanthropic sources. Use of client proj-
ects 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.
Open to advanced undergraduates with consent 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. S/U or letter grading.

282. Urban Design: Theories, Paradigms, Applica-
tions. (4) Lecture, three hours. Discussion and evalu-
ation of philosophical bases, ideologies, and para-
digms of urban design in last century; examination of policies that bear on public policies. Letter grading.

283. Community Research and Organizing. (4)
Lecture, three hours. Examination of theory and prac-
tice of organizing, analysis of role of community orga-
nizations in empowering low-skill workers and marginalized communities, and relationship of community and worker organizing to broader move-
ments for social change. Analysis of different research methods and strategies in terms of best supporting organizing and movement building, with focus on community-based participatory research (CBPR). Un-
derstanding of theories, principles, and strategies of CBPR, appreciation of advantages and limitations of this approach, and skills necessary for participating effectively in CBPR projects. Analysis in depth of one or more model organizing projects and an ongoing re-
search project that supports one local community or worker organization, exploring links between research and organizing campaign to which it is connected. Particular attention to race, gender, and class dimens-
ions of CBPR and issues of power and decolonizing research. Letter grading.

284. Looking at Los Angeles. (4) Lecture, three
hours. Introduction to history and physical form of Los
Angeles, with emphasis on understanding social, eco-
nomics, and political issues in development of Los

285. Women and Community Development: Great
Gender Debates. (4) Seminar, two hours; discussion,
90 minutes. Relationship between planning, community development, and women, with attention
to interaction of gender, race, and class/ethnicity. Examples from domestic and international developments. Alternative theories and methods to close gaps between professional knowledge and urban needs and urban policies. Preparation of written and oral critical reviews of literature and research paper. Letter grading.

M286. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Public Policy M226 and Social Welfare M290V.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Fundamental building blocks for successful management in nonprofit sector. Students develop management skills in strategic thinking/problem solving, project management, team building, and negotiation. Use of case studies to troubleshoot critical challenges, from management to marketing, that nonprofit managers typically face. Letter grading.

M287. Nonprofit Sector, State and Civil Society. (4) (Same as Public Policy M227 and Social Welfare M290S.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and political environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M288. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M228 and Social Welfare M241E.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experience directed toward study of social problems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

289. Sprawl. (4) (Formerly numbered 253.) 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 and what, if anything, should be done about it. Letter grading.

M290. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Public Policy M247 and Social Welfare M241F.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical processes of problem solving regarding substantive social welfare problems at community level. This form of community practice fills niche between professional and general and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other. 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 sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including water. Letter grading.


M293. Politics, Ideology, and Design. (4) (Same as Architecture and Urban Design CM283.) Lecture, three hours. Examination of the political 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 the intended and unintended effects on housing demand and supply in developing countries. How definitions 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 and 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 CM295.) 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.

296. 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. 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.

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design CM404.) 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 CM471.) 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. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 12) Tutorial, four hours. May be repeated for credit by Ph.D. students. S/U grading.

598. Preparation for M.A. Thesis in Urban Planning. (4) Tutorial, four hours. May be repeated but may be applied toward degree only once. S/U grading.


UROLOGY

David Geffen School of Medicine
UCLA
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(310) 794-8113
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http://urology.ucla.edu

Chair
Mark S. Litwin, M.D., M.P.H., F.A.C.S. (Frances and Ray Stark Professor of Urology), Chair

Scope and Objectives

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 one week on the urology service during the third year and may return for an additional four-week elective rotation during the fourth year. The clinical experience includes time spent in the faculty and resident clinics, on ward rounds, and in didactic conferences that cover general urology, urological subspecialties, uropathology, and uroradiology. Urology teaching settings include the Reagan UCLA, Harbor-UCLA, Olive View-UCLA, Santa Monica UCLA, and West Los Angeles VA Medical Centers.

For further details on the Department of Urology and a listing of the courses offered, see http://urology.ucla.edu.

Urology

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.
Scope and Objectives

The Visual and Performing Arts Education minor finds its raison d’etre in the formulation of critical theoretical and intercultural insights into artistic creativity and the politics of representation. (2) the creation, theorization, and interdisciplinary study of dance and other body-based modes of performance, and (3) mutually beneficial engagement with the diverse cultural and artistic communities of Los Angeles.

The department is an interdisciplinary unit that seeks to decenter Western perspectives by recognizing that visual and performance art and other ways of knowing are situated locally and often made and distributed globally. Faculty members, who have international standing and are engaged in both creative artistic work and research, are interlocutors in dialogues about the frictions and flows implicated by the department’s name. As such, WAC/DAN is defined by a dynamic interdisciplinary approach that encourages intercultural engagement with the diverse cultural and artistic communities of Los Angeles.

Women’s Studies

See Gender Studies

World Arts and Cultures/Dance

School of the Arts and Architecture

Guided by an interdisciplinary faculty of artists and arts scholars, the academic programs in the Department of World Arts and Cultures/Dance (WAC/DAN) have three overlapping missions: (1) the formulation of critical theoretical and intercultural insights into artistic creativity and the politics of representation, (2) the creation, theorization, and interdisciplinary study of dance and other body-based modes of performance, and (3) mutually beneficial engagement with the diverse cultural and artistic communities of Los Angeles.

The department is an interdisciplinary unit that finds its raison d’etre in the formulation of critical theoretical and creative viewpoints. The program seeks to decenter Western perspectives by recognizing that visual and performance art and other ways of knowing are situated locally and often made and distributed globally. Faculty members, who have international standing and are engaged in both creative artistic work and research, are interlocutors in dialogues about the frictions and flows implicated by the department’s name. As such, WAC/DAN is defined by a dynamic interdisciplinary approach that encourages intercultural engagement with the diverse cultural and artistic communities of Los Angeles.

Visual and Performing Arts Education

Interdisciplinary Minor

School of the Arts and Architecture

UCLA

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Angelia S.-Y. Leung, M.A., C.M.A., Chair

Faculty Committee

Judith F. Baca, M.A. (Chicana and Chicano Studies, World Arts and Cultures/Dance)
Tara C. Browner, Ph.D. (Ethnomusicology)
Barbara Drucker, M.F.A., ex officio (Art)
Frank Heuser, Ph.D. (Music)
Angela S.-Y. Leung, M.A., C.M.A. (World Arts and Cultures/Dance)
Willem Henrìk Lucas, B.A. (Design | Media Arts)
Patricia A. Wickman, M.F.A. (Art)

Scope and Objectives

The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system, (2) introduce students to a potential range of careers in the arts, including teaching artists, arts specialists, museum educators, arts administrators, and arts advocates and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions, (3) contribute to improved communication and interaction between the University, extended Los Angeles community, K-12 public school system, and students in the arts, and (4) expand the School of the Arts and Architecture’s commitment to University and community partnerships by linking teaching and research with undergraduate education, civic engagement, and support for institutional priorities to improve the quality of life for Los Angeles residents.

Undergraduate Study

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, Dance, Design | Media Arts, Ethnomusicology, Music, and World Arts and Cultures majors.

To apply to the minor, students must have completed at least 50 percent of the lower division requirements of their specific majors and Arts and Architecture 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 and a statement of interest, including any previous teaching and/or outreach experience.

Required Upper Division Courses (28 to 32 units): (1) Arts and Architecture M102, (2) two courses selected from Arts and Architecture 100, 101, Art M186A/M186AL, Dance C145 (with consent of adviser), 166, 167, Ethnomusicology 136, Music 100A, Theater 118A, 118D, World Arts and Cultures 103, 120 (with consent of adviser), C155, a 4-unit 195 course from the Departments of Art, Design | Media Arts, Ethnomusicology, Music, or World Arts and Cultures/Dance, or a 195 sponsored by the Center for Community Learning, (3) two courses selected from Education M108, 118, 120, 121, 122, 123, C125, C126, 127, 128, 129, 130, 131, 132, 133, 136, M186 (courses 120, 121, 127, and 130 are recommended), and (4) a two-course capstone sequence (Arts and Architecture M192, M192SL) that includes a guided teaching experience.

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.

Professors Emeriti

Judith B. Alter, Ed.D.
Donald J. Cosentino, Ph.D.
Irina Dosamantes-Beaudry, Ph.D.
Elise A. Dunin, M.A.
Pia S. Gilbert
Michael O. Jones, Ph.D.
Judy M. Mittoma, M.A.
Colin H. Quigley, Ph.D.
Marta E. Saviglano, Ph.D.
Carol J. Scotthorn, M.A.
Doris Siegel
Allegre Fuller Snyder, M.A.
Emma Lewis Thomas, Ph.D.

Associate Professors

Angelia S.-Y. Leung, M.A., C.M.A.
Janet M. O’Shea, Ph.D.
Lionel A. Popkin, M.F.A.
David Delgado Shorter, Ph.D.
Cheng-Chieh Yu, M.F.A.

Assistant Professors

Anurima Banerji, Ph.D.
Aparna Sharma, Ph.D.

Lecturers

Nicholas A. Duran, M.F.A.
Roert W. Eien, B.A.
Delvin B. Grimes, M.F.A.
Cari Ann Henderson, M.F.A.
Ginger Holquin, B.F.A.
Jackie G. Lopez, B.A.
Patrick Polk, Ph.D.
Willfried G. Souly
Jason C. Tsou, M.S.
Natsuo Tomita
Shel Wagner-Rasch

Adjunct Professor

Simone Forli, B.F.A.

Adjunct Associate Professor

Peter Tokofsky, Ph.D.

Adjunct Assistant Professors

Rennie Harris
Viji Prakash

Visiting Assistant Professor

Roslyn K. Warby
literacies and repertoires, including and transcending geography, ethnicity, class, and other distinctions of identity.

The undergraduate program offers majors in Dance and in World Arts and Cultures. The B.A. 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 techniques from around the world 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 B.A. in World Arts and Cultures highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three areas of cross-cultural and interdisciplinary study are available: arts activism, critical ethnographies, and visual cultures. These areas define the department commitment to a range of practices, including ethnography, activism, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are grounded in culturally diverse artistic expressions.

All students are encouraged to complement the required set of core and elective departmental courses with others offered across campus, such as courses from ethnic and area studies programs, and may organize their course of study in relation to particular interests or professional goals (e.g., international comparative studies, intercultural studies, education, films, performing arts such as Africa, Asia, or Latin America, minority discourse, gender studies). The graduate program offers Master of Arts and Ph.D. degrees in Culture and Performance and a Master of Fine Arts in Dance, with an emphasis on choreography. Culture and performance studies research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art-making. The M.F.A. in Dance offers 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 cultural 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.

Undergraduate Study

Dance B.A.

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 iden
tificatory 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 at (310) 825-8537.

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 freshman 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 with 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 (consult the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early Winter Quarter and may be interviewed as part of the application process.

Preparation for the Major

Required: Dance 1, 16, 44, 45, 67A, 67B, World Arts and Cultures 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 116, 117C, 118, 119, C122, 169, C171, World Arts and Cultures 170, 174A, 174B, C180, or other upper division courses with faculty approval, (b) critical dance studies—Dance C145, 149, 150, C152, M157, 158, 159, 160, 161, C171, 182, World Arts and Cultures C188, 199, or other upper division courses with faculty approval, (c) dance and civic engagement—Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 114, 144, 160, 1775L, 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 World Arts and Cultures 186A and 186B.

Movement Arts/Dance Practices—Required: A total of 48 units of practice courses. A minimum of 8 units of the 48 must be at the upper division advanced level. A minimum of two technique courses per term until completion is strongly recommended. Twenty-four units must be selected from Dance 6, 13, 15, 56, 63, 65, C106A, C113A, C115, 116; 24 units may be selected from Dance 7, 8, 9, 10, 11, 12, 14, 16, 57, 58, 59, 60, 61, 62, C109A, 110B, 111B, 112B, 116, 159, 160, World Arts and Cultures 5, 55, 78, 80, 114, 178. No more than 8 units of World Arts and Cultures 78 or 178 or 8 units of Dance 14 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 (World Arts and Cultures 186A, 186B) to coordinate and present their research findings.

World Arts and Cultures B.A.
Three areas of cross-cultural and interdisciplinary study are available in the World Arts and Cultures major: arts activism, critical ethnographies, and visual cultures. Students are introduced to all three areas through introductory courses the first year and then by a pyramidal progression, they develop intermediate knowledge in two areas followed by advanced knowledge in the area selected as the individual specialty. Four lower division and three upper division core courses are required to establish interdisciplinary relationships between theory and discourse, methods, and experience. Representation is studied within societies—as people understand their own lives and the world around them—and then from the outside looking in through humanitarian scholarship.

The major emphasizes hands-on activities such as internships to build skills necessary to participate in the required senior projects. In consultation with faculty advisers students select elective courses within and outside the department to increase knowledge of particular area studies, histories, literatures, theories, and methods.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor at (310) 825-8537.

Admission
New students are admitted to the major for Fall Quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For freshman 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 (consult the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. Students may be interviewed as part of the application process.

Preparation for the Major
Required: World Arts and Cultures 1, 20, 24, 33, and one 5-unit elective selected from course 22, 23, M23, or 51W.

The Major
The World Arts and Cultures major consists of 45 units of coursework.

Required: (1) World Arts and Cultures 100A or 100B, 104, 124; (2) a minimum of 12 units from at least two different areas: area 1 (arts activism)—World Arts and Cultures 103, 114, 120 (with faculty approval), 144, C115, C159, 160, 174A, 174B, 177SL, 195, 199, or other upper division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area), area 2 (critical ethnographies)—courses 120 (with faculty approval), 121, C142, C150, C151, 174A, 174B, 195, 199, or other upper division courses with faculty approval, area 3 (visual cultures)—courses 120 (with faculty approval), M125A, M125B, M125C, M126, M130, 133, C138, 143B, C145, C152, 174A, 174B, C180, C182, C184, M187, 195, 199, or other upper division courses with faculty approval; (3) 8 additional units of upper division elective courses from inside or outside the department by petition; and (4) courses 186A and 186B (senior honors project) or equivalent coursework with faculty approval.

Senior Honors Project
All students must also complete World Arts and Cultures 186A and 186B (or 10 units of equivalent coursework with faculty approval), the required senior honors project which must be selected from each student’s area of inquiry.

Students begin to identify a project in Spring Quarter of their junior year and submit a senior project proposal for faculty approval by the beginning of the senior year. They begin to work with a designated faculty adviser in Fall Quarter of the senior year. Projects may include written theses, visual ethnographies, documentaries, installations, short films, internships, community service, field-based research, and curatorial projects, as well as other formats. Projects are crafted in close consultation with a faculty adviser so as to provide capstone experiences that draw together ideas and abilities from four years of study, while positioning students for postgraduate opportunities for further study or for entrance to job markets.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://grad.ucla.edu/gasaa/library/pgmrqintro.htm. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of World Arts and Cultures offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Culture and Performance and a Master of Fine Arts (M.F.A.) degree in Dance.

Dance

Lower Division Courses

1. Global Perspectives on Dance. (8) Lecture, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global 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.

2. Beginning World Arts Practices in Sub-Saharan Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures 6.) Studio, three hours. Beginning-level study of world arts practices originating from sub-Saharan Africa and extending to cultures of African diaspora, including Brazil and Afro-Caribbean. Variable topics, such as dance of Guinea, Mali, and Senegal or Afro-Caribbean masking traditions, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

3. Beginning World Arts Practices in Middle East/ North Africa and Diaspora. (2) (Formerly numbered World Arts and Cultures 7.) Studio, three hours. Beginning-level study of world arts practices originating from Middle East and North Africa. Variable topics, such as belly dancing or Israeli folk dance, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

4. Beginning World Arts Practices in Latin America and Diaspora. (2) (Formerly numbered World Arts and Cultures 8.) Studio, three hours. Beginning-level study of world arts practices originating from Latin America, including cultures of South and Central America. Variable topics, such as Argentine tango and...
MEXICAN FOLKLORE TO MODERN DANCE

11. Beginning World Arts Practices in South Asia and Diaspora. (Formerly numbered World Arts and Cultures 11.) Studio, three hours. Beginning-level study of world arts practices originating from South Asia and extending to cultures of South Asian diasporas, including communities in East and West Africa. Variable topics, such as Bharata Natyam (classical dance of India), Balinese legong, and hatha yoga, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

12. Beginning World Arts Practices in Southeast Asia and Diaspora. (Formerly numbered World Arts and Cultures 12.) Studio, three hours. Beginning-level study of world arts practices originating from Southeast Asia. Variable topics, such as Cambodian court dance, Indonesian kechak, or Balinese legong, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

13. Beginning World Arts Practices in Europe and Diaspora. (Formerly numbered World Arts and Cultures 13.) Studio, three hours. Beginning-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including U.S. Variable topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

14. Fundamentals of Movement. (Laboratory) Three hours. Study of movement fundamentals and conditioning practices for dancers. Personalized attention enables students to increase their ability to move more efficiently and to prevent dance injuries. May be repeated for credit without limitation, but only 8 units may be applied toward major requirements. P/NP grading.

15. Beginning Modern/Postmodern Dance. (Formerly numbered World Arts and Cultures 15.) Lecture, four hours. Study of dance technique. Critical viewing, reading, and discussion of modern/postmodern dance artists’ works. May be repeated for credit without limitation. P/NP or letter grading.

16. Beginning Improvisation in Dance. (Formerly numbered World Arts and Cultures 16.) Lecture, one hour; laboratory, three 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.

44. World Dance Histories. (Formerly numbered World Arts and Cultures 44.) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices throughout time and how they developed in the world, questioning relations of dance to culture and politics and providing students with tools for investigating histories of any given dance form. P/NP or letter grading.

45. Introduction to Dance Studies. (Formerly numbered World Arts and Cultures 45.) Lecture, three hours. Enforced requisite: course 44. 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.

660 World Arts and Cultures/Dance
110B. Dance in East Asia. (4) (Formerly numbered World Arts and Cultures 110B.) Lecture, four hours. Survey of dances of Japan, China, and Korea and factors that have influenced their development and social function. Consideration of relationship of dance to other art forms. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

111B. Dance in South Asia. (4) (Formerly numbered World Arts and Cultures 111B.) Lecture, four hours. Survey of dance forms in India and Sri Lanka. Factors influencing development of dance, its social function, and its relationship to other art forms. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

112B. Dance in Southeast Asia. (4) (Formerly numbered World Arts and Cultures 112B.) Lecture, four hours. Survey of selected ritual, social, and court dances of Indonesia, Cambodia, Thailand, and Philippines. Social, historical, and aesthetic factors. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.

C113A. Advanced World Arts Practices in Europe and Diaspora. (2) (Formerly numbered World Arts and Cultures C113A.) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices as they are evolving in Europe and extending to cultures of European diaspora, including U.S. emphasis on selected topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

C115. Advanced Modern/Postmodern Dance. (2) (Formerly numbered World Arts and Cultures C115.) Studio, four hours; outside study, eight hours. Designed for course 65. Studies in advanced modern/postmodern dance technique, with emphasis on perforning skills. May be repeated for credit without limitation. Concurrently scheduled with course C114. P/NP or letter grading.


117A. Theories and Methods in Dance Composition I: Locations. (4) (Formerly numbered World Arts and Culture C117A.) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of how location of dancing impacts its meaning. How does occasion of dance, location, or celebration influence experience of it? What are factors that need to be considered when locating dance in one particular place? Consideration of how different locations, as well as choreographic, visual art, performance art. Theoretical engagement with selected topics through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) (Formerly numbered World Arts and Cultures 118.) Lecture, four hours; studio, two hours. Enforced requisites: courses 67A, 67B. Directed exploration in composition, with focus on developing works that engage two or more disciplines, such as dance, music, visual art, performance art. Theoretical engagement with selected topics through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

119. Advanced Intercultural Composition. (4) (Formerly numbered World Arts and Cultures 119.) Lecture, four hours; studio, two hours. Enforced requisites: courses 67A, 67B. Directed exploration in composition, with focus on works that engage techniques and practices of two or more cultures. Engagement with postcolonial theory through lectures, readings, and discussions. May be repeated for credit without limitation. P/NP or letter grading.

C122. Music and Dance Collaborations. (4) Studio, four hours. Requisite: 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 work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creative process of making dance and music, presenting works and techniques such as labanotation as related to expressive movement features for dance performance. Personalized attention and use of video to increase students’ stylistic diversity. Development of movement efficiency for prevention of dance injuries. May be repeated twice. P/NP or letter grading.

158. Choreographing Gender. (4) (Formerly numbered World Arts and Cultures 158.) Lecture, three hours; laboratory, two hours. Designed for juniors/seniors. Analysis of aesthetic codes and theatrical choreographic approaches as they intersect with construction of gender in U.S., with close attention to race, class, and sexuality. P/NP or letter grading.


160. Topics in Body Mechanics. (4) (Formerly numbered World Arts and Cultures 160.) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Topics vary, but may include: anatomy for dancers, and study of biological and physical principles of human movement as related to dance. May be repeated for credit without limitation. P/NP or letter grading.

161. Movement Observation and Analysis. (4) (Formerly numbered World Arts and Cultures 161.) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Use of variable theoretical framework and techniques such as labanotation to emphasize culturally defined processes of observing and describing human movement. P/NP or letter grading.

165. Foundations of Dance Education. (4) (Formerly numbered World Arts and Cultures 165.) Lecture, two hours; laboratory, three hours. Introduction to movement concepts, skills, and principles for dance education. P/NP or letter grading.

166. Dance as Culture in Education. (4) (Formerly numbered World Arts and Cultures 166,) Lecture, two hours; laboratory, two hours. Theoretical and practical aspects of teaching ethnic dance, especially in higher education. P/NP or letter grading.

167. Creative Dance for Children. (4) (Formerly numbered World Arts and Cultures 167,) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children’s dance; emphasis on dance as creative medium of expression. P/NP or letter grading.

169. Repertory Tour Ensemble. (2 or 4) (Formerly numbered World Arts and Cultures 169,) Lecture, two hours; studio, four to six hours. Designed for World Arts and Cultures majors. Creation and presentation of performances in community, with special emphasis on problems of touring companies with variable repertoire. May be repeated once. P/NP or letter grading.

C171. Dance Production: Variable Topics. (4) (Formerly numbered World Arts and Cultures 171,) Lecture, four hours; laboratory, two hours. Foundationd experience in range of dance production practices, including but not limited to lighting design, set design, costume design, and stage management. P/NP or letter grading.
quity into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for credit without limitation. Concurrently scheduled with course C145. S/U or letter grading.

C252. History and Theory of Modern/Postmodern Dance. (Formerly numbered World Arts and Cultures C252.) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creating, choreocinema, and writing within 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, in choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundational experiential approach to production practices, including but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C171. S/U or letter grading.

C406A. Advanced World Arts Practices in Sub-Saharan Africa and Diaspora. (Formerly numbered World Arts and Cultures C406A.) Studio, three hours; outside study, three hours. Advanced study of world arts practices originating from sub-Saharan Africa and African diaspora. Variable topics and genres, such as West Africa (Burkina Faso, Mali, Guinea, Senegal) and diaspora (Haiti, Brazil, Caribbean, Cuba). Inclusion of cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C106A. S/U or letter grading.

C409A. Advanced World Arts Practices in North America and Diaspora. (Formerly numbered World Arts and Cultures C409A.) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including U.S. and global, and international. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C109A. S/U or letter grading.

C413A. Advanced World Arts Practices in Europe and Diaspora. (Formerly numbered World Arts and Cultures C413A.) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including U.S. Variable topics, such as flamenco, Balkan folk dances, and classical ballet, in cultural and historical context. May be repeated for credit without limitation. Concurrently scheduled with course C113A. S/U or letter grading.

C415. Advanced Modern/Postmodern Dance. (Formerly numbered World Arts and Cultures C415.) Studio, six hours. Requisite: course 65. Studies in advanced modern/postmodern dance technique, with emphasis on performing skills. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

C441. Dance Production Practicum. (2 to 4) (Formerly numbered World Arts and Cultures 441.) Laboratory, four to eight hours (one or two hours may be individualized consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeated for maximum of 8 units. S/U grading.

C452. Directed Field Study in Dance Education. (2 to 8) (Formerly numbered World Arts and Cultures 452.) Seminar, one hour to two hours; laboratory, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. No more than 4 units may be applied toward M.A. degree requirements. S/U grading.

190. Projects in Choreography and Performance. (2 to 8) (Formerly numbered World Arts and Cultures 190.) Tutorial, one three-hour rehearsal per unit per week minimum. Creation, casting, and rehearsing of culminating concert, reflecting professional achievement in choreography or performance, in first term. In second term, direction of on-stage rehearsals for culminating concert by each student leading to fully staged performance. May be repeated for maximum of three units S/U or letter grading.

1498. Professional Internship in Dance. (4, 8, or 12) (Formerly numbered World Arts and Cultures 498.) Seminar, to be arranged. Full- or part-time supervised internship limited to M.F.A. students. Experience in dance, theater, film, or television organization. Participation in creative, administrative, or technical work of professionals in their specialties. S/U or letter grading.

World Arts and Cultures

Lower Division Courses

1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creative expression, role of style in daily life, performative representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Lower Division Seminar. (Formerly numbered 2A.) Seminar, four hours; outside study, 11 hours. Variable topics seminar will be aimed at practice-based research in arts. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, visual cultures, oral genres, material culture, study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, theoretical and analytical approaches to arts practice, arts activism, and other topics pertaining to broad fields of culture, performance, and dance. Research inquiry methods may include readings, as signed written analysis, supervised fieldwork, individual collaborative action, and students will be encouraged to prac tice-oriented processes. Substantial culminating project integrating theoretical and practical components of selected seminar topic required. May be repeated for credit. Letter grading.

5. Beginning Global and Transcultural Forms. (2) Studio, three hours. Beginning-level study of world arts practices crossing national and cultural boundaries. Variable topics, such as body, music, cross-cultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

20. Culture: Introduction. (5) Lecture, four hours. Introduction to key concepts of the theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hegemony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Cultural/historical survey of role of folklore in development of American civilization and of influence of American experience in shaping folklore American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.

M23. Introduction to American Indian Studies. (5) (Same as American Indian Studies M10.) 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.

24. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour. Use of Fowler Museum's long-term exhibition entitled "Intersections: World Arts/Local Lives" as object of study to examine many insights that arts can offer into social, political, and religious experience. Drawing heavily on cultures of Africa, Asia, Pacific, and Indigenous Americas, both an-
cient and contemporary, consideration of degree to which notions of aesthetics and efficacy are intertwined and interdependent in art forms made to intervene in people’s lives in active, instrumental ways. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.

33. Indigenous Worldviews. (5) Lecture, three hours; discussion, one hour. Introduction to study of indige- nous worldviews as they are expressed through art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consider- ation of process of colonization, tradition, religious change, and legal and social implications of episte- mological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.


55. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside work. Enforced requisite: consent of instructor. Survey of world arts practices crossing national and cultural boundaries. Variable topics, such as body music, cross-cultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

70. Production Practicum. (2) Lecture, 90 minutes; activity, three and one half hours. Introduction to practical perspectives on producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series. Introduction to professional stage production principles and hands-on experience in technical theatre. May be repeated once for credit. P/NP grading.

78. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three to six hours. Designed for freshmen/sophomores. Private or semiprivate instruc- tion in one world arts practice with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for a maximum of 24 units. P/NP grading.

80. Video Tools and Techniques. (2) Laboratory; four hours. Independent study of laboratory tools and practical ways to train students in technical skills of video production. Basic skills spanned to develop short videos for circulation via DVD and/or Internet. Practical exercises based on tutorials and instruction provided in class, spanning production and postproduction processes of video making. Evaluation of students on these ex- ercises and final submission of edited sequence of any or all materials developed during course. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

85. Sophomore-Year Proposal. (1) Lecture, 90 min- utes. Planning and execution of proposal for junior year of study, with attention to exploring resources of department and University as whole. P/NP grading.

Upper Division Courses

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Enforced requisite for juniors/seniors. Discussion of what constitutes artist’s social respon- sibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong actions in a world that is structured, and developed. Study of cultural strategies of moral engagement, per- suasion, and inquiry in personal and public life, in- cluding acts of conscience and civil disobedience. P/NP or letter grading.

101. Theory of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly re- fers to activities on proscenium stage. Explosion of that narrow notion of performance by delving into scholarly studies, which draws on disciplines of anthropology, cultural studies, gender studies, linguistics, postcolonial theory, and sociology. Exploration in studio of con- crete performing theory in creating interdisciplinary performance works that engage with and amplify theo- ries studied. P/NP or letter grading.

102. Seminar: Intercultural and Interdisciplinary Performance. (4) Seminar, four hours. Requisite: course 101. Recent discussions of multiculturalism have demanded broader base of cultural literacy for society in general and from artists in particular. Moving beyond stereotyping and formalism, focus on areas of overlap and exchange, collaborations, col- lective creation, hybridization, and evolving possibili- ties of video and extended media. P/NP or letter grading.

103. Arts in Communities. (5) Lecture, four hours. Introduction to theoretical and practical under- standing of field of community arts by and for multiple publics. Review of relevant issues in field and explora- tion of roles of artists and arts organizations in strug- gles for social change, and community building. Through national and international ex- amples, exploration of art works that emphasize participation of citizens in community-based and cul- turally relevant performance, art, and exhibition. Ex- amination of processes of creative thinking, commu- nity involvement, collaborative enterprise, research, and education in community arts. Letter grading.


114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theatrical work. May be re- peated for credit without limitation. P/NP grading.

120. Selected Topics in Cultural Studies. (4) Lect- ure, three hours. Designed for juniors/seniors. Se- lected topics in cultural theory, cultural history, and per- formance in cultural and historical context. Consult Schedule of Classes for topics to be offered in spec- ific term. May be repeated for credit without limita- tion, P/NP or letter grading.

121. Ethnography and Performance. (4) Lecture, four hours; outside study, eight hours. Survey of some ways that ethnography and performance inter- relate, as well as development of some preliminary approaches to effectively document performance events. Reading of ethnographies of performances, as well as consideration of how performances can work ethnographically. P/NP or letter grading.

122. Introduction to Folklore. (4) Lecture, four hours. Survey of various forms of folklore and approaches to their identification, description, and analysis, in- cluding their historical and social significance. Intro- duction to expressive behavior of folk groups from throughout world and comparison through readings, lectures, film, and fieldwork, with attention to artistic, religious, and other traditions in relation to evolving popular culture. P/NP or letter grading.

123. Arts of Identity: Survey of Expressive Cul- tures. (4) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in cultural context. Special attention to relation- ships between and within the roles of artist- ists in cultural survival and transformation. Concur- rently scheduled with course C223. P/NP or letter grading.

124. Introduction to Field-Based Research Meth- odologies. (5) Formerly numbered 21.) Lecture, three hours. Introduction to methods, techniques, and is- sues in conducting field research including fieldnote taking, participant observation, interviews, in-depth case studies, which draws on disciplines of anthropology, cultural studies, gender studies, linguistics, postcolonial theory, and sociology. Exploration in studio of con- crete performing theory in creating interdisciplinary performance works that engage with and amplify theore- ries studied. P/NP or letter grading.

M125A. Beyond Mexican Beginning Mural- ism and Community Development. (4) (Same as Art M186A and Chicana and Chicano Studies M186A.) Studio/lecture, four hours. Corequisite: course M125AL. Investigation of muralism as method of community education, development, and empower- ment. Exploration of issues through development of large-scale collaborative digitally created image and/ or painting for placement in community. Students re- search, design, and work with community partici- pants. P/NP or letter grading.

M125AL-M125BL-M125CL. Beyond Mural Mu- ralism and Community Laboratory. (4-2-2) (Same as Art M186AL-M186BL-M186CL) Course M125AL is requisite to M125BL, which is req- uisite to M125CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in commu- nity-based setting. Open to students during scheduled hours with laboratory tech support, it offers in- tuition to students interested in collabora- tive teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M125AL. Corequisite: course M125A, M125AL.

M125AL-M125BL. Beyond Mexican Mural: Intermediate Mu- ralisms and Community Development. (4) (Same as Art M185A and Chicana and Chicano Studies M185A.) Lecture, four hours. Recommended corequisites: courses M125A, M125AL. Corequisite: course M125B, M125CL. Advanced. Laboratory, two hours. Corequisite: course M125C.

M125B. Beyond Mexican Mural: Intermediate Mu- ralisms and Community Development. (4) (Same as Art M186B and Chicana and Chicano Studies M186B.) Studio/lecture, four hours. Requisites: courses M125A, M125AL. Corequisite: course M125B, M125CL. Corequisite: course M125D, M125CL. Advanced. Laboratory, two hours. Corequisite: course M125E.

M125C. Beyond Mexican Mural: Advanced Muralis- m and Community Development. (4) (Same as Art M186C and Chicana and Chicano Studies M186C.) Studio/lecture, six hours. Requisites: courses M125B, M125CL. Corequisite: course M125CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced inde- pendent projects. P/NP or letter grading.

M125D. Beyond Mexican Mural: Advanced Muralis- m and Community Development. (4) (Same as Art M185B and Chicana and Chicano Studies M185B.) Lecture, three hours. Recommended corequisites: course M125A, M125AL. Corequisite: course M125B, M125CL. Ex- ploration of public monuments in U.S. as basis for cultural critique 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 de-
spectrum of genres, including architecture, social and dance regalia, masks, and utilitarian material culture, to investigate how such items play their part and come alive through the spoken word, silence, and even dreams and visions. Concurrently scheduled with course C238. P/NP or letter grading.

C139. Afro-Caribbean Ritual Arts: Vodou and Santería (Same as Gender Studies CM143.) Lecture, four hours; outside study, eight hours. Designed for juniors/senior. Examination of role of women healers, historically and within contemporary culture-specific contexts. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM240. P/NP or letter grading.

C140. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American Carnival occasions and those old-world Lancaster. Topics include: everyday carnival and carnivalesque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.


C142. Narrative and Oral Performance. (4) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance, studies of individual narrators, how stories are composed in performance, interaction of narrative and audience, how place and experience become embodied in narratives, modes of representing oral narrating, and politics of stories and oral performance. P/NP or letter grading.

C143. African Popular Arts. (4) Lecture, three hours. Introduction to problems and issues in study of popular arts in sub-Saharan Africa. Lectures, readings, and audio-visual materials focus on broad spectrum of creative forms and processes, including visual and plastic arts, literature, performed genres such as music, poetry, theater, and dance, and everyday practices such as hair weaving, house-painting, personal adornment, and joke telling. P/NP or letter grading.

C144. African Traditional Arts in Performance. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. How cloth and clothing was and continues to be hand-woven in indigenous societies. Use of textiles from Fowler Museum collection to coordinate hands-on experience with cultural history. May be repeated twice for credit. P/NP or letter grading.

C145. African American Art. (4) Lecture, four hours. Survey 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" environments, which are built and used by members of small-scale, "traditional," and "transitional" communities around world. P/NP or letter grading.

C146. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, two hours; outside study/research, eight hours. Designed for juniors/seniors. Introduction to historical, theoretical, methodological, and ethical considerations involved in practice of dance as healing and therapy. Concurrently scheduled with course C246. P/NP or letter grading.

C147. Arts and Healing. (4) Lecture, four hours. Interdisciplinary, contemporary arts-based model of healing applicable to persons leading Western modernist lifestyles and coping with two kinds of social crises during their lifetimes: (1) developmental transitions that are disruptive life-cycle changes that have potential to promote self-regeneration or self-fragmentation and (2) external transitions that are situations of catastrophic events that make threat of fear and anguish and chaos, but if successfully negotiated, have potential to promote revitalized sense of self, greater compassion for others, and restored sense of trust and hope in humanity. Concurrently scheduled with course C247. P/NP or letter grading.

C148. African Popular Arts. (4) Lecture, four hours. Examination of life of renowned Mexican artist Frida Kahlo in light of (1) Mexico’s political, religious, and social history that gave rise to miztec and machismo, two social conditions that strongly influenced construction of her mestiza and identity, as well as her revolutionary political ideals, (2) obstacles that 20th-century female artists living in patriarchal societies had to confront, (3) way their significant attachment to the Mexican construc- tion of subjective sense of self and kinds of artwork she produced, (4) transcendent and self-regulatory functions of her self-portraits served in maintaining her emotional equilibrium, (5) opposition she faced after her death into cultural icon by culturally disen-franchised groups, and (6) psychosocial conditions and processes that tend to promote creation of cultural icons. Concurrently scheduled with course C252. P/NP or letter grading.

C149. Visual Cultures. (4) Lecture, four hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include: narrative systems, aesthetics of streamlined design, and visuality and liberation. Concurrently scheduled with course C252. P/NP or letter grading.

C150. 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 cosmologies define moral being in world, divinities determine causes of difficulty, spirit mediumship embodies divine intervention, and sacred arts render deities tangible. Nonjudgmental comparative investigation stressing conversation. Concurrently scheduled with course C251. P/NP or letter grading.

C151. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method within component of 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 C252. P/NP or letter grading.

C152. Ethnography of Religions. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include: narrative systems, aesthetics of streamlined design, and visuality and liberation. Concurrently scheduled with course C252. P/NP or letter grading.

C153. Cultural Icons. (5) Lecture, four hours. Examination of life of renowned Mexican artist Frida Kahlo in light of (1) Mexico’s political, religious, and social history that gave rise to miztec and machismo, two social conditions that strongly influenced construction of her mestiza and identity, as well as her revolutionary political ideals, (2) obstacles that 20th-century female artists living in patriarchal societies had to confront, (3) way their significant attachment to the Mexican construction of subjective sense of self and kinds of artwork she produced, (4) transcendent and self-regulatory functions of her self-portraits served in maintaining her emotional equilibrium, (5) opposition she faced after her death into cultural icon by culturally disenfranchised groups, and (6) psychosocial conditions and processes that tend to promote creation of cultural icons. Concurrently scheduled with course C252. P/NP or letter grading.

C154. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method within component of 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 C252. P/NP or letter grading.

C155. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method within component of 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 C252. P/NP or letter grading.

C156. Mexican American Art. (4) Lecture, four hours. Acquisition of awareness and sensitivity to dynamic contexts within Native American worlds. 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 giving its most generous definition. Study of words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C246. P/NP or letter grading.

C157. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method within component of 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 C252. P/NP or letter grading.

C158. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method within component of 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 C252. P/NP or letter grading.
C158. Theorizing Arts Activism. (4) Seminar, three hours. Exploration of activist sexual health education theater as it has been used both locally and globally. Examination specifically of humor, personal narrative, and nonjudgmental pro-sex approaches have been utilized to open empowering and educational dialogues about sexual health by and for communities of color. Interactive training on sex, sexuality, HIV/AIDS, and powerful histories of artists’ interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

C164. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing about arts, with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of (and venues for) writing that rebalance modes of (and venues for) writing that critique into practice. Exploration of new approaches to writing about arts, with eye toward consideration of particular folk genre, culture area, historical, and independent video and documentary practice as discursive and practical perspectives on producing events in decontextualized settings. May be repeated for credit. P/NP or letter grading.

C166. Beyond Academia: Making Art in the Real World. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course C264. P/NP or letter grading.

170. Advanced Production. (1 to 2) Laboratory, three hours; outside study, up to three hours. Requisite: course 70. Further development and application of practical perspectives on producing events in department and institution, limited to theatrical and performing arts only. May be repeated once for credit. Concurrently scheduled with course C267. P/NP or letter grading.

C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. May be repeated for credit without limitation. P/NP grading.

177SL. Taking Action: Arts Practice and Community Service. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 103. Designed for juniors/seniors. Application of training in world arts and cultures through service projects designed by students in collaboration with selected community organizations and institutions. Reflection on impact of service on communities and on students. May be repeated once for credit. P/NP or letter grading.

178. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours. Designed for juniors/seniors. Private or semiprivate instruction in one world arts practice designed by students in collaboration with selected community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP or letter grading.

C180. Variable Topics in Video Production/Practic. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experimental film. Introduction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance among range of forms for both personal and professional development. May be repeated once for credit. Concurrently scheduled with course C280. Letter grading.

181. Ethnographic Film. (4) Lecture, four hours. Survey of ethnographic film and video, with focus on studies that emphasize on critical and comparative approaches to visual culture of culture, community, and arts. P/NP or letter grading.


C183. Film and Folklore. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to filmic criticism and folklore methodology. Topics include early examples of folklore on film, changing conceptions of folklore and uses of films about folklore, and examples of modern filmic folklore. Concurrently scheduled with course C283. P/NP or letter grading.


185. Junior-Year Proposal. (1) Lecture, 90 minutes; outside study, 90 minutes. Limited to World Arts and Cultures majors. Planning and execution of proposal (either senior focus or senior honors project) for senior-year study, with attention to exploring resources of department and University as whole. May be repeated once for credit. P/NP grading.

186A-186B. Senior Honors Projects in World Arts and Cultures. (S-5) Lecture, four hours; outside study, up to 11 hours. Enforced requisite to 186B. Limited to senior World Arts and Cultures majors. Application of concepts and content from interdisciplinary major to individual projects. Methodologies may include critical, comparative, ethnographic, and performance approaches. Lecture/seminar format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. Letter grading.

M187. Indigenous Film. (5) Same as American Indian Studies M186.) Lecture, four hours; discussion, one hour. Introduction to study of indigenous film in the Americas. Students will develop a focused selection of films that represent historical, geographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

191. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Tutorial, six hours. Internship in supervised setting in community agency or business. Students meet on regular basis with in-structor, who will provide periodic guidance and evaluation. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in World Arts and Cultures. (2 to 4) Tutorial, two hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theories of Culture. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture concept in arts, humanities, and social sciences. Analysis of contemporary debates concerning ownership and use of word “culture” and critical elucidation of history of study of culture and cultural analysis.

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, theater, and world arts.

202. Research Methodologies. (4) Seminar, three hours; outside study, nine hours. Hands-on course designed to help students develop understanding of many developed qualitative research methods and designs they encounter in their work. Identification and creation of research problems, development of designs, actual data collection, and analysis procedures to address those problems. S/U or letter grading.

203. Proseminar: Dance Studies. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of dance and body movement in cultural, social, and historical context. S/U or letter grading.

204. Theories of Corporeality. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on human body. Topics include representations of 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.

205. Folklore Theories and Methods. (4) Lecture, three hours; outside study, nine hours. Introductory course in history, analytical perspectives, and current trends, including research in contemporary folkloristics. S/U or letter grading.

206. Folklore Seminar. (4) Seminar, three hours; outside study, nine hours. Variable topics. Delineated consideration of particular folk genre, culture area, historical period, and/or theoretical issue in field of folklore. May be repeated for credit. 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 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 ways that peoples, focus on in intersections of writing, colonialism, violence, and historiography in Americas. Exploration of relationship between 16th-century reasoning about race and postmillennial West. Academic practices of writing history. Development of critical stance on utility of postcolonial theories as such perspectives bear on historical and historical stance on indigenous religiosity. Regions include southwest Colombia, Orinoco Delta in Venezuela, Valley of Mexico, and several examples throughout U.S. southwest, plains, and northeast. S/U or letter grading.

216. Analytical Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and interpreting their styles and repertoires; how narrators conceptualize and perform narrative discourse, impact of audience and situated event on both narrating and story, how experiences and values are communicated through narrating, modes of representing oral narrating, and politics of narrative and oral performance. S/U or letter grading.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Variable topics in interdisciplinary study of culture, arts, and performance in social and historical context. May be repeated for credit without limitation. S/U or letter grading.

223. Arts of Identity: Survey of Expressed Cultures. (4) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in cultural context. Special attention to relationships between arts and identity and to role of artists in cultural survival and transformation. Concurrently scheduled with course C123. S/U or letter grading.

229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sense of time, childhood practices, foodsharing, food and identity, food and its emotional significance, aversions and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C129. S/U or letter grading.

238. American Indian Arts in Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Variable topics in interdisciplinary study of Western art and crafts 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 such items play their part and role of arts in healing troubled communities. Concurrently scheduled with course CM240. S/U or letter grading.

241. Carnival and Festivity. (4) Lecture, three hours; fieldwork, one hour. Study of traditional calendrical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on American festival occasions and their Old World antecedents. Topics include carnival and carnivalesque and political occasion. Concurrently scheduled with course CM141. S/U or letter grading.


244. Folk Medicine. (4) Seminar, three hours; outside study, nine hours. Exploration of fundamental concepts, analytical approaches, and recurrent questions in research on folk or traditional medicine, including categories and motivations of healers, varieties of illness, and treatment modalities such as use of faith and plant-based remedies, along with issues about persistence, efficacy, and development of culturally sensitive healthcare. S/U or letter grading.


246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and high cultural westward movement in domains of ideology, aesthetics, and theory. Analysis of such key words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

247. Arts and Healing. (4) Lecture, four hours. Interdisciplinary, contemporary arts-based model of healing applicable to persons leading Western modernist lifestyles and coping with two kinds of social crises during their lifetimes: (1) developmental transitions that are disruptive life-cycle changes that have potential to promote self-regeneration or self-fragmentation and (2) external transitional events that are situational catastrophic events that evoke great terror and trigger fears of annihilation and chaos, but if successfully negotiated, have potential to promote revitalized sense of self, greater compassion for others, and re-storrection of cultural wellbeing and transcendent manifestation. Concurrently scheduled with course C147. S/U or letter grading.

248. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, two hours; outside study/research, eight hours. Designed for graduate students. Introduction to historical, theoretical, methodological, and ethical considerations involved in practice of dance as healing and therapy. Concurrently scheduled with course C148. Letter grading.

250. Critical Ethnographies. (5) Lecture, 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.

251. 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. Contemporary secularization across cultures as cosmologies define moral being in world, divination determines causes of difficulty, spirit mediums provide divine intervention, and sacred arts embody and express transcendent intervention, comparative investigation stressing conversation. Concurrently scheduled with course C151. S/U or letter grading.

252. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visionality and letter grading. Concurrently scheduled with course C152. S/U or letter grading.

255. Self and Culture. (4) Lecture, two hours; labaratory, four hours. Designed for graduate students. Exploration of critical developmental processes and situational factors contributing to construction of sense of self and emergent cultural identity and subjectivity in different cultural contexts. Concurrently scheduled with course C155. S/U or letter grading.

256. Frida Kahlo: Creation of Cultural Icon. (5) Lecture, four hours. Examination of life of renowned Mexican artist Frida Kahlo in light of (1) Mexico’s political, religious, and social history that gave rise to mestiza and machismo, two social conditions that strongly influenced construction of her mestiza and gender identity, as well as her revolutionary political ideals, (2) obstacles that 20th-century female artists living in patriarchal societies had to confront, (3) way her significant attachments influenced her construction of subjective sense of self and kinds of artworld she produced, (4) transcendental and self-regulatory functions her self-portraits served in maintaining her emotional equilibrium, (5) conversion of Kahlo’s image after her death into cultural icon by culturally disenchanted, disenchanted groups, and (6) psychosocial conditions and processes that tend to promote creation of cultural icons. Concurrently scheduled with course C156. S/U or letter grading.

258. Theorizing Arts Activism. (4) Seminar, three hours. Historicizing and theorizing of arts activism to provide context for concerted analysis, creation, and production of tensions including such concepts as current performance histories, Considerations of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activist projects organized by seminar members supported and encouraged. Concurrently scheduled with course C158. S/U or letter grading.

259. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts- and health-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Readings include texts by artists and arts scholars and articles from health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C159. S/U or letter grading.

264. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing about arts, with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of (and venues for) writing that reBalance power differential between art makers and commentators. Concurrently scheduled with course C164. S/U or letter grading.

265. Beyond Academia: Making Art in Real World. (4) 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 grantwriting. Concurrently scheduled with course C168. S/U or letter grading.

273. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for graduate students. Exploration of music, in search of interesting, new, and unusual sounds and possibilities. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found sound). Participation 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/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 ex- perimental film. Introduction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance among range of forms or bodily expression and experience. Film and docu- mentary 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 re- peated once for credit. Concurrently scheduled with course C189. Letter grading.


C283. Film and Folklore. (4) Lecture, three hours. Designed for graduate students. Introduction to film criticism and folklore methodology. Topics include early examples of folklore on film, changing concep- tions of folklore and uses of films about folklore, and examples of films by, with, and for folklorists. Concur- rently scheduled with course C183. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Semi- nar, to be arranged. Preparation: apprentice per- sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid- ance and supervision of regular faculty member re- sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Directed Professional Activities. (2 to 8) Lec- ture, to be arranged. Directed projects in professional editing, bibliography, filmography, videography, con- ference and festival direction, and other professional activities may not be applied toward M.A. degree re- quirements. 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; out- side study, three to 12 hours. Private or semiformal instruction with distinguished community-based artist to be arranged by students and approved by in- structor. 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 presen- tations and obtain feedback on research being planned, conducted, or recently completed. Students required to make minimum of one presentation each term they are enrolled for credit. May be repeated for maximum of 8 units. S/U grading.

495. Transfer Preparation in World Arts and Cul- tures. (2) Seminar, two hours. Directed work in prepa- ration of course syllabi and discussion of topics rele- vant to developing teaching skills. Fundamental prin- ciples and methods with which to design course syll- abi and gather resources for courses. Topics include development of teaching philosophy, evaluating/see- lecting course content, teaching methodologies, as- sessment/evaluation/grading practices, and consid- eration of practical, administrative, and ethical issues. Students meet with instructor to review their specific needs as they progress in development and elabora- tion of course plans. Microteaching sessions provide context for applying concepts and principles dis- cussed. 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 Ex- amination or Ph.D. Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for M.A. or M.F.A. comprehensive examination or Ph.D. qualifying ex- amination. S/U grading.


Writings for Graduate Programs

Writings for Graduate Programs

College of Letters and Science

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Sonja Maassik, M.A.
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Sarah Meslie, Ph.D.
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Jennifer Westbay, Ph.D.
Laurel A. Westrup, Ph.D.

Scope and Objectives

Students need to develop their proficiency as writers and communicators at every stage of their university careers and beyond. Writing Programs offers a series of courses introduc- ing the varieties of university discourse and providing instruction in basic to high-level skills. Besides courses that satisfy the University of California Entry-Level Writing require- ment and UCLA's English as a Second Lan- guage, Writing I, and Writing II requirements, Writing Programs offers language support for international teaching assistants, as well as ad- vanced courses in writing across the curricu- lum and composition pedagogy.

Undergraduate Study

Entry-Level Writing

Every student who does not satisfy the Entry- Level Writing requirement by presenting trans- fer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition A, 2, or 2I (determined by performance on the Analyti- cal Placement Examination). For more information regarding Entry-Level Writing, see Undergraduate Degree Requirements in the Undergraduate Study section of this catalog.

English as a Second Language Requirement

All entering UCLA students whose native lan- guage is not English and who have not other- wise satisfied the English as a Second Lan- guage (ESL) requirement may be required to take one or more ESL courses.

First-year undergraduate students are placed into the courses based on the Analytical Writ- ing 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.

Transfer and graduate students are placed into the courses based on the UCLA English as a Second Language Placement Examination (ESLPE). Neither the Test of English as a For- eign Language (TOEFL) nor any other English proficiency test is accepted in lieu of the ESLPE. Transfer students may take the ESLPE only once. Graduates or students may sit for the examination a second time in the subsequent term only. If students retake the examination, the most recent examination score is valid. The following students are exempt from the ESL requirement: (1) first-year undergraduate students who have satisfied the Entry-Level Writing requirement (see Entry-Level Writing in the Undergraduate Study section of this cata- log), (2) transfer students exempt on the basis of their transcript evaluation (see the Under- graduate Study section of this catalog), and (3) graduate students who hold a bachelor's or higher degree from a university in which En- glish is the medium of instruction (see Interna- tional Applicants in the Graduate Study section of this catalog).
English as a Second Language

Lower Division Courses

22. Academic Communication Skills for Interna-
tional Freshmen. (2) Lecture, two hours. Limited to freshman
students. Interactive practice in academic
communication skills needed to participate effectively
in undergraduate study at UCLA. P/NP grading.

32. Conversation and Interaction for Academic
Purposes. (4) Lecture, four hours. Development of
oral skills that prepare nonnative speakers of English
to improve critical listening skills, participate in
class discussions, make oral presentations before audi-
ence, ask and answer questions, participate appropri-
ately in conversation with members of academic
community, and improve through self-evaluation of
speech. P/NP (undergraduates), S/U (graduates), or
letter grading.

33A. Introductory English for Academic Purposes.
(4) Lecture, 10 hours. Requisite: proficiency demo-
strated on English as a Second Language Placement
Examination. Displaces 8 units on student’s Study
List but yields only 4 units of credit toward degree.
Intensive instruction in structure of English, with focus
on vocabulary building, listening and speaking skills,
and basic composition techniques. To satisfy English
as a Second Language requirement, students must
select letter grading. P/NP (undergraduates), S/U (graduates), or
letter grading.

33B. Intermediate English for Academic Purposes.
(4) Lecture, five hours. Requisite: course 33A (C or
better) or proficiency demonstrated on English as a
Second Language Placement Examination. Enforced
corequisite: course 22. Emphasis on reading compre-
nsion, vocabulary development, and composition
skills, with additional work on structure and oral
skills. To satisfy English as a Second Language re-
quirement, students must select letter grading. P/NP
(undergraduates), S/U (graduates), or letter grading.

33C. Advanced English for Academic Purposes.
(4) Lecture, five hours. Requisite: course 33B (C or
better) or proficiency demonstrated on English as a
Second Language Placement Examination. Emphasis
on academic reading, writing, study skills, and lecture
comprehension. To satisfy English as a Second Lan-
guage requirement, students must select letter grading. P/NP
(undergraduates), S/U (graduates), or letter grading.

33G. Advanced English for Academic Purposes for
Graduate Students. (4) Lecture, five hours. Requi-
te: course 33B (C or better) or proficiency dem-
strated on English as a Second Language Placement
Examination. Emphasis on advanced academic skills
of advanced ESL graduate students, using authentic
grade-level materials. Emphasis on development of
academic skills necessary for success in graduate
school. (1) reading skills such as reading research
academic disciplines, rate and comprehension, and
vocabulary development, (2) writing skills such as
summarizing and critiquing and other discipline-spe-
cific assignments, academic learning skills, and (3)
academic speaking skills such as participation in dis-
cussions and making presentations. Grammar incor-
porated as needed, especially in regard to writing.
S/U or letter grading.

34. Public Speaking for Academic Purposes. (4)
Lecture, four hours. Designed to help nonnative
speakers of English communicate effectively in aca-
demic and professional settings. Development of oral
skills that prepare nonnative speakers of English
to present ideas extemporaneously, lead class discus-
sions, give lectures or speeches before audience, re-
spond to questions posed by audience, and improve
through self-evaluation of speech. P/NP (undergraduates),
S/U (graduates), or letter grading.

35. Approaches to University Writing for ESL Stu-
dents. (5) Lecture, four hours. Requisite: course 33C
(C or better) or proficiency demonstrated on English
as a Second Language Placement Examination and/or
Analytical Writing Placement Examination. Compo-
sition skills for ESL students, with focus on writing
process, grammatical structures key to clear and ef-
fective style, mechanics of writing, and practice with
major forms of academic writing. Additional emphasis
on academic reading skills. Completion of course
with grade of C or better satisfies Entry-Level Writing re-
quirement. Letter grade only.

36. Composition, Rhetoric, and Language for ESL
Students. (5) Lecture, four hours. Requisite: course 35
or proficiency demonstrated on English as a
Second Language Placement Examination. Focus on
academic argumentation and rhetorical techniques
found in academic writing. Special attention to indi-
vidual research, grammatical structures, and style.
Satisfies Writing I requirement. Letter grading.

37. English Grammar and Style for Academic Pur-
poses. (4) Lecture, four hours. Requisite: course 33B
(may be taken concurrently) or proficiency demon-
strated on English as a Second Language Placement
Examination. Review of form and use of grammatical
structures found in academic discourse. Analysis of
stylistic function of certain structures and practice in self-editing strategies. P/NP (undergraduates),
S/U (graduates), or letter grading.

38A. Pronunciation: Stress and Intonation in En-
glish. (4) Lecture, four hours. Designed to help non-
native speakers of English communicate effectively
in social as well as classroom/academic settings and
improve critical listening skills. 33C or 35 required.
Focus on the important aspects of pronunciation: stress, rhythm,
and intonation. P/NP (undergraduates), S/U (gradu-
ates), or letter grading.

38B. Pronunciation: Sound System of English. (4)
Lecture, four hours. Requisite: course 33B or 33C or
35 or proficiency demonstrated on English as a
Second Language Placement Examination. Detailed
and systematic study of sounds of American English
and in which they are put together in connected
speech, applied to improvement of student’s own ac-
cent. P/NP (undergraduates), S/U (graduates), or
letter grading.

39A. Intensive Language and Fluency Training for
International Teaching Assistants. (4) Lecture, six
hours. Recommended for individuals whose Test of
Spoken English (TSE) score is 40 or below or whose
UCLA Test of Oral Proficiency (TOP) score is 6.3 or
below. Recommended to aid international graduate stu-
dents who wish to become teaching assistants, with focus on development of general communicative
competence, fluency in classroom discourse, and im-
provement of accuracy of pronunciation and spoken
grammar. Use of specialized pronunciation software
in computer laboratory. P/NP (undergraduates), S/U (graduates), or
letter grading.

39B. Communication Strategies for International
Teaching Assistants. (4) Lecture, four hours. Rec-
ommended for individuals whose Test of Spoken En-
glish (TSE) score is 40 or 45 or whose UCLA Test of
Oral Proficiency (TOP) score is 7.0 or above. Designed to help nonnative speakers of English communicate ef-
ficiently as teaching assistants, with focus on presen-
tation skills, classroom language fluency, and pronun-
ciation accuracy. P/NP (undergraduates), S/U (gradu-
ates), or letter grading.

39C. Presentation and Discussion-Leading Skills
for International Teaching Assistants. (4) Lecture,
four hours. Recommended for individuals whose Test
of Spoken English (TSE) score is 45 or above or whose
UCLA Test of Oral Proficiency (TOP) score is 7.0 or above. Designed to help nonnative speakers of
English communicate effectively as teaching assis-
tants. Activities include interactive teaching demon-
strations and leading/participating discussion.
Emphasis on self, peer, and instructor feedback. P/NP
(undergraduates), S/U (graduates), or letter grading.

80. Language in Globalizing World: Second Lan-
guage Interaction in Everyday Life and Academia. (4)
Lecture, four hours. Enforced corequisite: Applied
Linguistics 80. Designed to provide students whose first
language is not English with linguistic and cultural
resources to succeed in rigorous content course
where students study various interactional phe-
nomena observed in second language communica-
tion. P/NP or letter grading.

97A. Variable Topics in English as a Second Lan-
guage. (4) Lecture, four hours. Specialized topics in
English as a Second language or academic
purposes. Emphasis varies according to topics cov-
ered and/or audience to whom course is directed.
May be repeated for credit with topic change. Offered
in summer only. P/NP (undergraduates), S/U (gradu-
ates), or letter grading.

97B. Variable Topics in English as a Second Lan-
guage. (2) Lecture, two hours. Enforced requisite:
course 33B or proficiency demonstrated on English
as a Second Language Placement Examination. Spe-
cialized topics in English as second language or En-
glish for academic purposes. Emphasis varies ac-
cording to topics covered and/or audience to whom
course is directed. May be repeated for credit with topic change. P/NP (undergraduates), S/U (gradu-
ates), or letter grading.

Upper Division Courses

101. Introduction to Language Learning and Lan-
guage Teaching. (4) Lecture, four hours. Enforced
corequisite: Applied Linguistics 101. Designed to pro-
vide students whose first language is not English with
language support in areas of academic reading,
writing, listening, and speaking. Exploration of skills
and conditions involved in successful second and for-
gen language learning; application of this knowledge in
development of frameworks for teaching second
and foreign languages. P/NP or letter grading.

106. Advanced Composition for ESL Students. (4)
Lecture, four hours. Requisite: course 36 (C or
better) or proficiency demonstrated on English as a
Second Language Placement Examination and ap-
propriate Composition Placement Test score. Focus
on production of fully developed, stylistically sophisti-
cated expository and argumentative essays based on
course 33B or proficiency demonstrated on English
as a Second Language Placement Examination. Spe-
cialized topics in English as second language or En-
glish for academic purposes. Emphasis varies ac-
cording to topics covered and/or audience to whom
course is directed. May be repeated for credit with topic change. P/NP (undergraduates), S/U (gradu-
ates), or letter grading.

107. Academic Reading and Vocabulary. (4) Lec-
ture, four hours. Requisite: course 33C or 35 (may
be taken concurrently) or proficiency demonstrated on
English as a Second Language Placement Examina-
tion. Instruction in and practice of academic reading
skills using authentic university texts. Focus on im-
proving reading rate and comprehension in expanding
academic vocabulary, and developing critical reading
skills. P/NP (undergraduates), S/U (graduates), or
letter grading.

109. Literature and Language. (4) Lecture, four
hours. Requisite: course 33C or 35 (may be taken
concurrently) or proficiency demonstrated on English
as a Second Language Placement Examination. Se-
lected, themed English language works that are pre-
sented so as to make full allowance for students’ linguis-
tic and cultural problems and to contribute to in-
creasing command of English language. P/NP
(undergraduates), S/U (graduates), or letter grading.
English Composition

Lower Division Courses

A. Introduction to University Discourse. (No credit) Lecture, four hours. Enforced requisite: appropriate score on Analytical Writing Placement Examination. Displaces 4 units on student’s Student List but yields no credit toward degree. First course in reading university-level texts and framing written responses that employ range of rhetorical strategies from paraphrase to analysis. Emphasis on revision, developing synthesis, and academic vocabulary, and engaging in grammar and style. Completion of course with grade of C or better or demonstration of minimum competence on Analytical Writing Placement Examination. Letter grading.

1. Approaches to University Writing. (5) Lecture, four hours. Enforced requisite: course A with grade of C or better or appropriate score on Analytical Writing Placement Examination. Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on revision for argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing Requirement. Letter grading.

2. Approaches to University Writing. (5) Lecture, six hours. Enforced requisite: appropriate scores on Analytical Writing Placement Examination and English as a Second Language Placement Examination. 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 effective and clear style in academic prose. Minimum of 15 to 20 pages of revised text. Completion of course with grade of C or better satisfies Entry-Level Writing and English as a Second Language requirements. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, three hours. Enforced requisites: satisfaction of Entry-Level Writing requirement, course 2 or English as a Second Language 35 (C or better). 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.

35L. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Enforced requisites: satisfaction of Entry-Level Writing requirement, course 2 or English as a Second Language 35 (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 diverse off-campus assignments 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 or 3H or English as a Second Language 36. Use of analysis of literary works within cultural context to engage students in critical thinking and writing about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

6W. Language, Culture, and Discourse. (5) Lecture, four hours. Enforced requisite: course 3 or 3H or English as a Second Language 36. Study of structure and function of language and how it reflects social structure and cultural values. Readings in linguistic analysis, language acquisition, sociolinguistics, and pragmatics provide foundation as students analyze authentic language as it is used in private and public contexts. Minimum of 15 to 20 pages of revised text required. Satisfies Writing II requirement. Letter grading.

50. Writing Workshop. (2) Lecture, five hours. Designed for any students who have not yet enrolled in their first full term at UCLA. Introduction to demands of university writing and often unstated conventions that govern it. Writing techniques developed to address specific writing tasks such as timed examination, application essay, effective e-mail, and college paper. Offered in summer only. P/NP or letter grading.

51. Writing Workshop. (2) Lecture, two hours. Limited to students admitted to one UC campus who have not completed their first year of college coursework. Introduction to demands of university writing and often unstated conventions that govern it. Designed not only for secondary school students but also for those who have not yet completed their first year of college coursework. Letter grading.

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3 or 3H or English as a Second Language 35. 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 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. Requisite: satisfaction of Entry-Level Writing requirement, course 3 or 3H. Students must be concurrently enrolled in course offered in conjunction with course 110 (consult Schedule of Classes for courses so designated). Writing assignments use materials from adjunct course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement. Introduction to basic concepts that are special interest to elementary school teachers. Subject includes approaches to English grammar; language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.


123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing II requirement. Designed to help students become information literate, so they know how to identify, locate, evaluate, and use print and electronic information effectively and ethically. Closely interwoven with Writing Programs courses that have information/research-related assignments. P/NP or letter grading.

129A-129D. Academic Writing in Disciplines. (4 each) Lecture, four hours. Designed for juniors/seniors. Advanced study of writing conventions in specific disciplinary areas, with focus on analysis and development of writing expertise in common discourse forms, stylistic patterns, and research practices in given discipline. Each course may be taken independently for credit. P/NP or letter grading. 129A. Literature; 129B. Social Sciences. Letter grading. 129C. Physical and Life Sciences; 129D. Fine Arts.
lingual writers, and nonnative English-speaking (NNS) writers. Provides opportunity to reflect critically on theoretical and practical frameworks for tutoring to which students have been introduced. PLFs receive guidance in their tutoring process via observations by course instructor and their peers. May be repeated for credit with consent of instructor. P/NP grading.

195. Community or Corporate Internships in English Composition. (4) Tutorial, to be arranged. Requisite: course 3 or 3H. Satisfaction of Writing II requirement. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in English Composition. (2 to 4) Tutorial, to be arranged. Requisite: course 3 or 3H. 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

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.

494. Current Issues in University Writing Pedagogy. (4) Seminar, three hours. Designed for graduate students. Exploration of current writing pedagogical issues in higher education, with focus on debates surrounding change role of writing instruction, 21st-century literacies, and teaching multilingual learners. S/U grading.

495A. Supervised Teaching Preparation. (2) Seminar, two hours. Required of all teaching assistants for Writing II 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 disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

495B. Supervised Teaching Preparation. (4) Seminar, three hours. Course 495A is not requisite to 495B. Required of all teaching assistants who are assigned to English Composition 3 courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3. S/U grading.

495C. Supervised Teaching Preparation. (2) Seminar, two hours. Requisite: course 495B. Required of all teaching assistants who are assigned to English Composition 3 courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3. May be repeated for credit. S/U grading.

495D. Supervised Teaching Preparation. (2) Seminar, two hours. Requisite: course 495A. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

495E. Supervised Teaching Preparation. (2) (Same as Engineering M495B.) Seminar, two hours. 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.

495F. Supervised Teaching Preparation. (2) (Same as Engineering M495C.) Seminar, one hour. Requisite: course 495E. 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.

495G. Supervised Teaching Preparation. (4) Seminar, three hours. Required of all teaching assistants who are assigned to English as a second language (ESL) multiskills and composition courses. Focus on pedagogical issues specifically related to academic reading and composition skills for ESL students, including course design, assessment of student writing, conferencing, and specialized problems that may occur in teaching English as a second language courses. S/U grading.
Appendixes

APPENDIX A: REGULATIONS AND POLICIES

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. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Inquiries regarding the University’s student-related nondiscrimination policies may be directed to the UCLA Campus Counsel, 3149 Murphy Hall, Box 951405, Los Angeles, CA 90095-1405, (310) 206-6985.

Inquiries regarding nondiscrimination on the basis of disability covered by the Americans with Disabilities Act (ADA) of 1990 or Section 504 of the Rehabilitation Act of 1973 may be directed to the ADA and 504 Compliance Officer, A255 Murphy Hall, UCLA, Box 951405, Los Angeles, CA 90095-1405, voice (310) 267-2004, TTY (310) 206-3349. See http://www.adaa.ucla.edu.

Students may complain of any action which they believe discriminates against them on the ground of race, color, national origin, marital status, sex, sexual orientation, disability, or age and may contact the Office of the Dean of Students, 1206 Murphy Hall, and/or refer to Section 111.00 of the University of California Policies Applying to Campus Activities, Organizations, and Students (available in 1206 Murphy Hall or at http://pacaos.ucop.edu/doc/2710531/PACAOS-110) for further information and procedures.

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 of UCLA’s policies and regulations parallel federal, state, and local laws, UCLA’s standards may be set higher. The University of California Policies Applying to Campus Activities, Organizations, and Students (UC Policies) have been incorporated into the UCLA Student Conduct Code either by adapting or inserting verbatim the language of the policies. The complete University of California Policies Applying to Campus Activities, Organizations, and Students is available at http://ucop.edu/student-affairs/policies/student-life-policies/pacaos.html. Students may contact the Office of the Dean of Students, Office of Ombuds Services, or Student Legal Services for advice concerning these policies.

A. Jurisdiction

The University has jurisdiction over student conduct that occurs on University property, or in connection with official University functions whether on or off University property. The University may, at its sole discretion, exercise jurisdiction over conduct that occurs off campus and that would violate student conduct when (1) the alleged misconduct indicates the student poses a threat to the safety or security of any member(s) of the University community or (2) the alleged misconduct involves academic work or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

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

B. 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. See the following definitions:

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. 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, information, or study aids in any academic exercise; the alteration of any answers on a graded document before submitting it for grading; 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 falsification 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 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 re-submission in identical or similar form by a student of any work which has been previously submitted for credit, whether at UCLA or any other school, college, or university in identical or similar form in one course to fulfill the requirements of a concurrent course, without the informed permission/consent of the instructor of the second course; or the submission by a student of any work submitted for credit in identical or similar form in one course to fulfill the requirements of a concurrent course, 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 means 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 part of the assignment in question, or 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.

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POLICIES

APPENDIX B: POLICIES AND REGULATIONS
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. Theft or abuse of University computers and other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry, 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 and with the operation of computer or electronic communications facilities, systems, and services; or violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as songs, movies, software, photos, or text. Violation of the University of California Electronic Communications Policy (available at http://policy.ucop.edu/doc/7000470), or of any other University acceptable or allowable use policy is also considered a violation of Section 102.05.

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.

102.08: Conduct that Threatens Health or Safety. Conduct that threatens the health or safety of any person, including oneself. This includes, but is not limited to, physical assault, sexual misconduct, domestic violence, dating violence, threats that cause a person reasonably to be in sustained fear for one's own safety or the safety of her or his immediate family, incidents involving the use 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.

Sexual misconduct occurs when a person knowingly causes another person to engage in a sexual act by (a) physical force, violence, threat, intimidation, and/or coercion; (b) ignoring the objections of the other person; (c) causing the other’s intoxication or impairment through the use of drugs or alcohol; or (d) taking advantage of the other person’s incapacitation, state of intimidation, helplessness, or other inability to consent.

Sexual misconduct also occurs when a person, having failed to take appropriate steps to gain effective consent, engages in a sexual act with another under the unreasonable belief that effective consent had been obtained.

Domestic violence means violence committed by a person's current or former spouse or current or former cohabitant.

Dating violence means violence committed by a person who is or has been in a romantic or intimate relationship with the victim.

NOTE: For the purpose of this regulation, the following apply:

1. “Effective consent” referenced in the terms above means words or actions that show a knowing and voluntary agreement to engage in a mutually agreed-upon sexual activity. Effective consent cannot be gained by force, by ignoring or acting in spite of the objections of another, or by taking advantage of the incapacitation of another, where the accused student knows or reasonably should have known of such incapacitation. Effective consent is also absent when the activity in question exceeds the scope of effective consent previously given.

2. “Incapacitation” means the physical and/or mental inability to make informed, rational judgments. Where alcohol is involved, incapacitation is determined by how the alcohol consumed impacts a person, including the person's decision-making capacity, awareness of consequences, and ability to make informed judgments. The question is whether the accused student knew, or a sober, reasonable person in the position of the accused student should have known, that the person was incapacitated.

3. “Sexual act” referenced in the terms above includes, but is not limited to, sexual intercourse, anal intercourse, oral-genital contact, or sexual penetration with a foreign object (including a finger), the touching of a person's intimate parts (defined as genitalia, groin, breast, or buttocks, or clothing covering them), or compelling a person to touch her or his own or another person's intimate parts without effective consent.

4. Intoxication of the accused will not diminish her or his responsibility for any violations of this section.

102.09: Sexual Harassment.

Student Employees. When employed by the University of California, and acting within the course and scope of that employment, students are subject to the University of California Policy on Sexual Harassment for employees (http://policy.ucop.edu/doc/4000385). Otherwise, the applicable standard for sexual harassment by students is conduct that is so severe and/or pervasive, and objectively offensive, in that it so substantially impairs a person's access to University programs or activities that the person is effectively denied equal access to the University's resources and opportunities.

In compliance with UCLA Procedure 630.1, cases involving allegations of sexual harassment must be either resolved by the dean or heard before the Student Conduct Committee within 60 days of the referral of the complaint. This deadline may be extended on approval from the vice chancellor of Student Affairs.

102.10: Stalking. Stalking behavior in which a student repeatedly engages in a course of conduct directed at a specific person, that places that person in reasonable fear for her or his safety, or the safety of a third person or persons.

102.11: Harassment. Harassment is defined as conduct that is so severe and/or pervasive, and objectively offensive, and that so substantially impairs a person's access to University programs or activities that the person is effectively denied equal access to the University’s resources and opportunities.

Student and/or employee sexual harassment is governed by the University of California Policy on Sexual Harassment and the procedures for responding to sexual harassment. See Section 102.09.

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.

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.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.

102.16: Failure to Comply. Failure to identify oneself to, or comply with directions of, a University official or other public official acting in the performance of her or his duties while on University property or at official University functions, or resisting or obstructing such University or other public officials in the performance of or the attempt to perform their duties.

102.17: Controlled Substances. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances (including medicinal marijuana), identified in Federal and State laws or regulations, which is unlawful or otherwise prohibited by, or not in compliance with, any University policy or campus regulations or being unable to exercise care for one’s own safety because one is under the influence of controlled substances. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given a controlled substance without her or his knowledge and permission.

102.18: Alcohol. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of alcohol which is unlawful or otherwise prohibited by, or not in compliance with, University policy or campus regulations, or being unable to exercise care for one’s own safety because one is under the influence of alcohol. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given alcohol without her or his knowledge and permission.

102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, firebombs, or other destructive devices.

102.20: Weapons and Replica Weapons.

102.20a: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20b: Replica Weapons. Except as expressly permitted by UCPD policy, possession, use, storage, or manufacture of replicas of firearms or other weapons is prohibited.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under the UCLA Student Conduct Code.

102.22: Violation of Interim or Emergency Suspension Conditions. Violation of the conditions contained in a written Notice of Interim or Emergency Suspension issued pursuant to Section IV of the UCLA Student Conduct Code.

102.23: Unauthorized Use or Sale of University Materials. Except as provided herein, no student shall 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.

102.26: Terrorizing Conduct. Conduct, where the actor means to communicate a serious expression of intent to terrorize, or acts in reckless disregard of the risk of terrorizing, one or more University students, faculty, or staff. Terrorizing means to cause a reasonable person to fear bodily harm or death, perpetrated by the actor or those acting under his/her 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, 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 photographs, or streaming audio/video of any person in a private location without that person’s knowledge and express consent.

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.

Photographs and recordings made in private locations of sexual activity or that contain nudity may not be posted online or otherwise shared or distributed in any manner without the knowledge and express consent of all recorded parties, even if the photograph or recording was originally made with the knowledge and express consent of those parties.

Nudity means the absence of an opaque covering which covers the genitals, pubic hair, buttocks, perineum, anus, or anal region of any person or any portion of the breast at or below the areola thereof of any female person. Private locations are settings where the person reasonably expected privacy. For example, in most cases the following are considered private locations: residential living quarters, bathrooms, locker rooms, and personal offices. Private, nonpublic conversations and/or meetings include any communication carried on in circumstances that reasonably indicate that any party wants the communication to be confined to the parties, but excludes a communication made in a public gathering in which the parties to the communication may reasonably expect that the communication may be overheard or recorded. Express consent is clear, unmistakable, and voluntary consent that may be in written, oral, or nonverbal form.
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.

**Sexual Assault and Sexual Misconduct**

UCLA does not tolerate sexual assault or sexual misconduct. Where there is probable cause to believe a student has committed a sexual assault or has engaged in sexual misconduct, disciplinary action will be pursued. Sanctions may include dismissal from the University.

**If a Person Has Been Sexually Assaulted**

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

1. **Immediately call the police department.** If possible, call the UCLA Police Department at (310) 825-1491 or 911

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

Utilize campus and community support services:

1. **Contact a Campus Assault Resources and Education (CARE) counselor** at Counseling and Psychological Services. CARE counselors have expertise in working with people who have been sexually assaulted. 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 through the Office of the Dean of Students. Counselors are available to assist any UCLA student regardless of where or when the assault occurred. For assistance, contact Counseling and Psychological Services at (310) 825-0768 or go to 221 wooden Center West and ask to speak to a CARE counselor.

2. **Contact the Rape Treatment Center** at Santa Monica-UCLA Medical Center (310-319-4000) for free emergency medical treatment and counseling services. See http://www.911rape.org.

Caring assistance is available for persons who have been subjected to sexual assault or sexual misconduct. They are encouraged in the strongest terms to make a report.

**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 University 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 this policy. See http://www.sexualharassment.ucla.edu.

**Definitions**

For detailed definitions of sexual harassment, refer to Section 102.09 of the UCLA Student Conduct Code listed above.

**Complaint Resolution**

Experience has demonstrated that many complaints of sexual harassment can be effectively resolved through informal intervention. Individuals who experience what they consider to be sexual harassment are advised to confront the alleged offender immediately and firmly.

Additionally, an individual who believes that she or he has been sexually harassed may contact the Sexual Harassment Coordinator in 2241 Murphy Hall or a Sexual Harassment Information Center counselor for help and information regarding sexual harassment complaint resolution or grievance procedures at one of the locations listed below as determined by the complainant’s status at the University at the time of the alleged incident:

1. **Campus Human Resources/Employee and Labor Relations, Manager, 200 UCLA Wilshire Center, (310) 794-0860**

2. **Campus Human Resources/Staff and Faculty Counseling Center, Coordinator, 380 UCLA Wilshire Center, (310) 794-0248**

3. **Chancellor’s Office, Sexual Harassment Coordinator, 2241 Murphy Hall, (310) 206-3417**

4. **Counseling and Psychological Services, Director, 221 Wooded Center West, (310) 825-0768**

5. **David Geffen School of Medicine, Dean’s Office, Special Projects Director, 12-138 Center for the Health Sciences, (310) 794-1958**

6. **Graduate Division, Office Manager, 1237 Murphy Hall, (310) 206-3269**

7. **Healthcare Human Resources, Employee Relations Manager, 400 UCLA Wilshire Center, (310) 794-0500**

8. **Lesbian Gay Bisexual Transgender Campus Resource Center, Director, B36 Student Activities Center, (310) 206-3628**

9. **Office of the Dean of Students, Assistant Dean of Students, 1221 Murphy Hall, (310) 825-3871**

10. **Office of Ombuds Services, 105 Strathmore Building, (310) 825-7627; 52-025 Center for the Health Sciences, (310) 206-2427**

11. **Office of Residential Life, Judicial Affairs Coordinator, 205 Bradley Hall, (310) 825-3401**

12. **Resnick Neuropsychiatric Hospital, Administration/Human Resources Associate Director, B7-370 Semel Institute, (310) 206-5258**

13. **School of Dentistry, Assistant Dean, Student Affairs, A0-111 Dentistry, (310) 825-2615**

14. **Student Legal Services, Director, A239 Murphy Hall, (310) 825-9894**

15. **UCLA Extension, Human Resources Director, 629 UNEX Building, (310) 825-4287; Student Services Director, 214 UNEX Building, (310) 825-2656**

**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 (hereafter referred to as Policies; http://ucop.edu/student-affairs/policies/student-life-policies/paca-os.html) 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 Section 102.08 of the Policies.

Similarly, harassing conduct, including symbolic expression, which also involves conduct resulting in damage to or destruction of any property of the University or property of others while on University premises may subject a student violator to University discipline under the provisions of Section 102.04 of the Policies.

Further, under specific circumstances described in Section 102.11 of the Policies, students may be subject to University discipline for misconduct which may consist solely of expression. Copies of this Policy are available in the Office of the Dean of Students, 1206 Murphy Hall, or in any of the Harassment Information Centers listed below:

1. **Counseling and Psychological Services, 221 Wooden Center West, (310) 825-0768, http://www.counseling.ucla.edu**

2. **Dashew Center for International Students and Scholars, 106 Bradley Hall, (310) 825-1681, http://www.internationalcenter.ucla.edu**


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 any of the Harassment Information Centers listed immediately above.

In addition to providing support for those who believe they have been victims of harassment, Harassment Information Centers offer persons the opportunity to learn about the phenomena of harassment and intimidation; to understand the formal and informal mechanisms by which misunderstandings may be corrected and, when appropriate, student perpetrators may be disciplined; and 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. 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.

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, religion, sex, sexual orientation, ethnic origin, national origin, ancestry, marital status, medical condition, status as a covered veteran or, within the limits imposed by law or University regulations, because of age or citizenship or for other arbitrary or personal reasons.

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 and that formal discipline may be warranted, the alleged violator should be reported to the chair of the department and to the dean of the division or school with a request that a charge be filed with the Academic Senate Charges Committee. If the dean, in consultation with the vice chancellor of Academic Personnel, determines that there are not sufficient grounds for the administration to file a charge, the student may, after discussing the matter with the Office of Ombuds Services and a member of the Academic Senate Grievance Advisory Committee, file such a charge in person if the student continues to feel it is warranted.

Appendix A: Regulations and Policies / 675

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 the University 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, and for schools on the semester system, 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 (1) they are U.S. citizens, (2) they are permanent residents or other immigrants, or (3) they are nonimmigrants who are not precluded from establishing a domicile in the U.S.

Resident students who are not precluded from establishing domicile in the U.S. include those who hold valid visas of the following types: A, E, G, H-1, H-4, I, K, L, O-1, O-3, R, T, U, V.

To establish residence students 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. Physical presence within the state solely for educational purposes does not constitute the establishment of California residence, regardless of the length of stay. Students 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 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

Students are considered financially independent if one or more of the following apply: (1) they are at least 24 years of age by December 31 of the calendar year for which they are requesting residence classification; (2) they are a veteran of the U.S. Armed Forces; (3) they are a ward of the court or both parents are deceased; (4) they have legal dependents other than a spouse; (5) they are married, have a registered domestic partner, or are a graduate student or a professional student, and they were not claimed as an income tax deduction by their parents or any other individual for the tax year immediately preceding the term for which they are requesting resident classification; or (6) they are a single undergraduate student and they were not claimed as an income tax de-
duction by their parents or any other individual for the two tax years immediately preceding the term for which they are requesting resident classification, and they can demonstrate self-sufficiency for two full years 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 two years required for self-support might not coincide with the two tax years during which they must not have been claimed by their parents.

Note: Financial dependence is not a factor in determining residence status for graduate student instructors, graduate student teaching assistants, research assistants, junior specialists, postgraduate researchers, graduate student researchers, and teaching associates who are employed 49 percent or more of full time or awarded the equivalent in University-administered funds (e.g., grants, stipends, fellowships) in the term for which classification is sought.

Establishing Intent to Become a California Resident

Indications of students’ 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’s license or driver registration, (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, and (7) licensing for professional practice in California.

The absence of 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 the University is not in session.

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 (1) they remained in California after their parent(s) departed, (2) they enroll in a California public postsecondary institution within one year of their parent(s) departure, and (3) once enrolled, they 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 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

Members of the U.S. Armed Forces may be exempt from nonresident supplemental tuition unless their assignment to California is for the purpose of attending a state-supported institution of higher education. Graduate and professional students are eligible for this exemption for two years, during which time they must fulfill the UC residence requirements in order to maintain their resident status. They must provide the residence deputy on campus 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.

Undergraduate 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). In this case, financial independence is not a requirement.

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.

Spouse, Registered Domestic Partner, or Other Dependents of Military Personnel

Students are exempt from payment of nonresident supplemental tuition if they are a spouse, registered domestic partner, or natural or adopted child of an Armed Forces member who was a resident of California at the time of enlistment.

Note: Financial dependence is not a factor in determining residence status in this case. Intent is questioned if students return to their prior state of residence when the University is not in session.

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, registered domestic partner, or dependent child of a member of the U.S. Armed Forces stationed in California on active duty, graduate and professional students are eligible for the exemption only until they have resided in the state the minimum time necessary to become a resident (366 days). Students must petition for a waiver of nonresident supplemental tuition each term they are eligible. If they are enrolled in an educational institution and the member of the Armed Forces is transferred on military orders to a place outside California where he or she continues to serve in the Armed Forces, or the member of the Armed Forces retires from active duty immediately after having served in California on active duty, they may retain this exemption under conditions listed above.

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, registered domestic partner, or dependent child of a member of the U.S. Armed Forces stationed in California on active duty, graduate and professional students are eligible for the exemption only until they have resided in the state the minimum time necessary to become a resident (366 days). Students must petition for a waiver of nonresident supplemental tuition each term they are eligible. If they are enrolled in an educational institution and the member of the Armed Forces is transferred on military orders to a place outside California where he or she continues to serve in the Armed Forces, or the member of the Armed Forces retires from active duty immediately after having served in California on active duty, they may retain this exemption under conditions listed above.

Child, Spouse, or Registered Domestic Partner of Faculty Member

To the extent funds are available, if students are an unmarried dependent child under age 21, 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. Confirmation of the faculty member’s membership on the Academic Senate must be secured each term this waiver is granted.
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Child, Spouse, or Registered Domestic Partner of University Employee
Students may be entitled to resident classification if they are the child, spouse, or registered domestic partner of a full-time University employee whose assignment is outside California (e.g., Los Alamos Scientific Laboratory or University of California Washington, DC, Center). Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

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 his or her death and who was killed in the course of fire suppression or law enforcement duties.

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 adoption 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 waiver of nonresident supplemental tuition 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 exempt from nonresident supplemental tuition.

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 exempt from nonresident supplemental tuition.

Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista
Any amateur student athletes in training at the U.S. Olympic Training Center in Chula Vista may be exempt from nonresident supplemental tuition until they have resided in California the minimum time necessary to become a resident.

Graduate of a California High School
Students who attended high school in California for three or more years (9th grade included) and graduated from a California high school (or attained the equivalent) may be exempt from nonresident supplemental tuition. They are not eligible for the exemption if they are a nonresident alien.

Recipients of the Congressional Medal of Honor and Their Children under Age 28
Undergraduate 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. Recipients must be California residents, and students must be under age 28. Students’ annual income must not exceed the national poverty level. If the recipient was a parent who died, the parent must have been a California resident at the time of death.

Dependents or Wards of State through California’s Child Welfare System
Notwithstanding any other provisions, students who reside in California and are 19 years of age or under at the time of enrollment, and who are currently dependents or wards of the state through California’s Child Welfare System, or were served by California’s Child Welfare System and are no longer being served either due to emancipation or aging out of the system, shall be entitled to a resident classification as long as they remain continuously enrolled.

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. Continue to use a California permanent address in all records—educational, employment, military, etc.
2. Continue to satisfy California tax obligations. If students are claiming 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.
3. Retain a California voter’s registration and vote by absentee ballot.
4. Maintain a California driver’s license and vehicle registration. If it is necessary to change the driver’s license or vehicle registration, students must change them back within the time prescribed by law.

Petition for Residence Classification
Students may obtain a petition at 1113 Murphy Hall or at http://www.registrar.ucla.edu/forms/residenceclass.pdf for a change of classification from nonresident to resident status. All changes of status must be initiated at least three weeks in advance of the fee payment deadline for the applicable term.

Time Limitation on Providing Documentation
If additional documentation is required for residence classification but is not readily accessible, students are allowed until the end of the applicable term to provide it.

Incorrect Classification
Students who were incorrectly classified as residents are subject to nonresident classification and to payment of all nonresident tuition fees not paid. If they concealed information or furnished false information and were classified incorrectly as a result, they are also subject to University discipline. Resident students who become nonresidents must immediately notify the residence deputy.

Inquiries and Appeals
Inquiries regarding residence requirements, determination, and/or recognized exceptions should be directed to the Residence Deputy, UCLA Office of the Registrar, 1113 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429, (310) 825-3447, residence deputy@registrar.ucla.edu.

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.

Students may appeal a campus nonresident determination to the Office of the General Counsel only on the grounds and within the deadline specified below.

Grounds for Appeal
1. The decision to classify students as nonresidents for purposes of tuition 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 students be reclassified as residents.
2. Significant new information became available after the date of the campus decision classifying the students as nonresidents; despite the exercise of reasonable diligence (care and attention) the information was not previously known or available to the students; and, based on the new information classification as nonresidents is incorrect.

No appeals based solely on disagreement with the campus decision are acceptable.

Appeal Deadline
The Office of the General Counsel must receive the appeal from students within 30 days of the date of the campus decision notifying students
of the nonresident classification. Appeals should be directed 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 of the information requested on the Statement of Legal Residence form is required for determining whether or not students are legal residents for tuition purposes. Registration cannot be processed without this information. The Registrar’s Office on campus maintains the requested information. University of California governing residency 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 Standing Order 110.2; Regents policies 3105 and 3106). Students have the right to inspect University records containing the residence information requested on the form.

Financial Aid Standards for Satisfactory Academic Progress
The UCLA Financial Aid Office 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 or more strict than the UCLA standards for a student enrolled in the same educational program who is not requesting Title IV assistance. See the Standards for Satisfactory Academic Progress Guide at http://www.financialaid.ucla.edu/publications.html.

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

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

Maximum Timeframe
Units attempted may not exceed 150 percent of the published length of students’ programs.

Change of Academic Major/ Pursuit of Double Major or Minor
Students who have a change of academic major or pursue a double major or minor do not have additional financial aid eligibility beyond the maximum timeframe 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.

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

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

Repeat Coursework
Repeated courses and grade-point average are treated in accordance with the University’s academic policy as outlined in this catalog. If the Registrar’s Office counts repeat coursework as attempted/completed, this counts equally for academic progress standards.

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.

Withdrawals
Withdrawals after the first day of classes during a term count 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 for students who are required to follow an academic plan (see below), 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. Suspected students are notified via 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 the Financial Aid Office prior to the last day of the term for which students are appealing to have aid reinstated. Appeals are not considered retroactively. 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 who have had their aid eligibility suspended for failing to maintain the Standards for Satisfactory Academic Progress, or who have a denied satisfactory academic progress appeal, may regain financial aid eligibility by becoming compliant with the qualitative and quantitative components of the academic progress standards. Students who exceed the maximum timeframe 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 the Financial Aid Office 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 their aid being disbursed and may result in suspension of their financial aid eligibility.

Professional Schools
Students attending the Schools of Dentistry, Law, Management, Medicine, and University Extension are covered by criteria established by the respective school.

Grading Regulations
Assigning a Grade
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 Uni-
versity for consideration of disciplinary proceedings against the student. Until such proceedings, if any, have been completed, the grade DR (Deferred Report) is assigned for that course. If in such disciplinary proceedings it is determined that the student did engage in plagiarism or otherwise violated academic integrity, the administrative officer, in addition to imposing discipline, reports back to the instructor of the course involved, the nature of the plagiarism or cheating. In light of that report, the instructor may replace the grade DR 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 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 (see Faculty Code of Conduct earlier in the Appendix). 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.

Correction of Grades
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 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 reexamination or, with the exception of the 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 the University 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.

Policy on Alternate Examination Dates
In compliance with Section 92640(a) of the California Education Code, the University 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 are 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 the Dean of Students, 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 the Dean of Students 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, a term paper, a final oral examination, a 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 be graduated, a student's major department may examine him or her in the field of the major, may excuse the student from final examinations in courses offered by the department during that term and, with the approval of the Undergraduate Council, assign a credit value to such general examination.

An instructor shall, if he or she wishes, release to individual students their original final examinations (or copies). This may be done by any method that insures 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.

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, and (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, address (local/mailing, permanent, and/or e-mail), telephone numbers, major field of study, dates of attendance, enrollment status, grade level, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams.

As a matter of practice, UCLA does not publish student addresses or telephone numbers in the campus electronic 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, local/mailing, permanent, and/or 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" be released and published may so indicate through MyUCLA (https://my.ucla.edu). To restrict the release and publication of the 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 the Dean of Students, UCLA Career Center, Graduate Division, UCLA External Affairs Department, and the offices of a student's College or school and major department. Students are referred to the online UCLA Campus Directory (http://www
Undergraduate Retention, Graduation, and Time to Degree

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 96 percent of all students entering as transfers regularly return to enroll at UCLA for the second academic year and beyond.

Recent four-year, five-year, and six-year graduation rates for students entering from high school have averaged 69, 89, and 91 percent respectively, and 92 percent of all entering freshmen eventually graduate from UCLA.

Recent two-year, three-year, and four-year graduation rates for entering transfer students have averaged 58, 85, and 90 percent respectively, and 91 percent of all entering transfer students eventually graduate from UCLA.

Time to degree for UCLA undergraduates has declined significantly over the past decade. In 2012-13 more than 4,200 baccalaureate degrees were awarded to students who entered directly from high school. Among these graduates, 80 percent were registered for 12 quarters or less (i.e., four years or less), 89 percent for 13 quarters or less, 93 percent for 14 quarters or less, and 99 percent for 15 quarters or less (i.e., five years or less).

In 2012-13 more than 3,000 baccalaureate degrees were awarded to students who entered as transfers. Among these graduates, 66 percent were registered for six quarters or less (i.e., two years or less), 79 percent for seven quarters or less, 86 percent for eight quarters or less, and 96 percent for nine quarters or less (i.e., three years or less).

Additional information is available at http://www.aim.ucla.edu.
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. All incidents of criminal activity that pose a potential threat to the campus are brought immediately to the attention of the community through campus Crime Alert Bulletins (http://map.ais.ucla.edu/go/1001883). Additionally, those interested in receiving public safety bulletins and news briefs can sign up for the public safety list server at http://lists.ucla.edu/cgi-bin/mailman/listinfo/campus_safety-	.

Emergency Medical Services
UCPD provides emergency medical assistance for the campus community through the Emergency Medical Service program, which is staffed by students certified as emergency medical technicians (EMTs). 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 also 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; http://www.counseling.ucla.edu) 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 University 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.

Policies
UCLA is designated as a drug-free environment, and only under certain conditions is alcohol consumption permitted (none is permitted at athletic events). 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 any controlled substance without a prescription is illegal under both State and Federal Laws. Such laws are strictly enforced by UCLA police officers. Student violators are subject to University disciplinary action, criminal prosecution, fine, and imprisonment. Refer to the UCLA policies on substance abuse for further information.

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

Residential Housing
UCLA is the size of a small city and provides residential housing to approximately 11,000 students. Housing facilities range from apartments designed for students with children to multistudent apartment complexes to high-rise student residence halls. UCPD and student housing staff work hand in hand to create a safe and comfortable living and learning environment.

Campuswide security and safety programs for residents are held throughout the year to increase crime potential awareness 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 commonsense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. Police officers and CSOs are also assigned to the residence halls.

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

Safety Tips
The nature of the studies and research done at UCLA requires many of the campus buildings to be open 24 hours. Because the campus is so large and adjacent to the greater Los Angeles community, individuals with criminal intent are able to access the University grounds. Regardless of the time of day or night and no matter where persons are on campus, they should be alert and aware of their surroundings and exercise good commonsense safety precautions. Anyone parking on campus should remember to lock their vehicles and consider investing in locking devices and/or alarms. Take advantage of all of the safety services provided by the University and UCPD. Use the Campus Escort Service when walking at night. Keep room and apartment doors locked at all times. Most important, anyone needing assistance should not hesitate to contact the department.

APPENDIX B: UNIVERSITY ADMINISTRATIVE OFFICERS

Terms of Regents (http://regents.ucla.edu) appointed by the Governor expire March 1 of the year in parentheses. The Student Regent (Sadia Saifuddin) and Alumni Regents serve a one-year term beginning July 1 and ending June 30 of the year listed.

Regents Ex Officio
Governor of California
Edmund G. Brown, Jr.
Lieutenant Governor of California
Gavin C. Newsom
Speaker of the Assembly
Scott Wilk
President of the Alumni Associations of the University of California
Sheldon Engelhorn (2015)
Vice President of the Alumni Associations of the University of California
President of the University
Janet Napolitano

Appointed Regents
Richard C. Blum (2014)
William De La Peña (2018)
Russell S. Gould (2017)
Eddie Island (2017)
George D. Kieffer (2021)
Sherry L. Lansing (2022)
Monica C. Lozano (2022)
Hadi Makarechian (2020)
Norman J. Pattiz (2026)
Bonnie Reiss (2020)
Frederick R. Ruiz (2016)
Richard Sherman (2025)
Bruce D. Warner (2018)
Paul D. Wachter (2016)
Charlene Zettel (2021)
Sadia Saifuddin, Student Regent (2015)

Faculty Representatives to the Board of Regents
Mary Gilly
J. Daniel Hare

Staff Advisers to the Board of Regents
Donna Coyne (2013-15)
Deidre Acker (2014-16)

Officers of The Regents
President of The Regents
Edmund G. Brown, Jr.
Chair of The Regents
Bruce D. Warner
Vice Chair of The Regents
Frederick R. Ruiz
Chief Investment Officer
Jagdeep Singh Bachher
General Counsel
Charles F. Robinson
Interim Secretary and Chief of Staff
Anne Shaw
Senior Vice President—Chief Compliance and Audit Officer
Sheryl Vacc

Office of the President
President of the University
Janet Napolitano
Provost and Executive Vice President—Academic Affairs
Aimée Dorr
APPENDIX C: ENDOWED CHAIRS

Although UCLA is a public institution, private gifts are increasingly important in maintaining the quality of the University’s three missions of teaching, 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 members of the faculty.

As this catalog goes to press, UCLA has 386 endowed chairs that have been approved by the Office of the President of the University of California, as follows. (Asterisks indicate new chairs that have been approved by the Office of the President since publication of the 2013-14 UCLA General Catalog.)

School of the Arts and Architecture
Susan G. Covel and Mitchel D. Covel, M.D., Chair in Music
Alma M. Hawkins Memorial Chair
Mickey Katz Endowed Chair in Jewish Music
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Presidential Chair in Music and Interactive Arts
Mohindar Brar Sambhi Endowed Chair in Indian Music
*Shirley and Ralph Shapiro Directship at the Fowler Museum
UCLA Art Council Professorship in Art

School of Dentistry
Dr. Thomas R. Bales Endowed Chair in Orthodontics
Dr. Thomas K. Barber Endowed Chair in Pediatric Dentistry
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarssom 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

Graduate 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
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George F. Kneller Chair in Education and Philosophy
MacArthur Foundation Chair in Digital Media and Learning
Presidential Chair in Education and Diversity
Presidential Chair in Information Studies

Rosalinde and Arthur Gilbert Foundation
Dan and Rae Emmett Endowed Chair in
Connell Professorship of Law

Henry Samueli School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Traugott and Dorothea Frederking Endowed Chair in Cryogenics
Norman E. Friedmann Chair in Knowledge Sciences
Leonard Kleinrock Chair in Computer Science
Eavyn Knight Chair in Engineering
Levi James Knight, Jr., 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 Chemical Engineering
Ralph M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Manufacturing Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Edward K. and Linda L. Rice Endowed Chair in Materials Science
Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell Collins Chair in Engineering
William Frederic Seyer Chair in Materials Science
Symantec Chair in Computer Science
Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering
William D. Van Vorst Chair in Chemical Engineering Education
Wintek Endowed Chair in Electrical Engineering

School of Law
Norman Abrams Endowed Chair in Law
Omar and Azmeralda Alfì Chair in Islamic Law
*Barrall Family Endowed Chair in Tax Law
Harry Graham Balter Chair in Law
David A. Binder Endowed Chair in Clinical Law
Connell Professorship of 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
Pete Kameron Endowed Chair in Law

Pete Kameron Endowed Chair in Law and Social Justice
MacArthur Foundation Chair in International Justice and Human Rights
Richard C. Maxwell Chair in Law
McDonald/Wright Chair in Law
Arjay and Frances Fearing Miller 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
Michael H. Schill Endowed Chair in Law
Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
Shirley 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

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
Joyce Oldham Appleby Endowed Chair of America in the World
George and Sakaye Aratani Chair in Japanese American Incarceration, Redress, and Community
Thomas M. Asher Endowed Chair in Microbiology
*Marilyn Beaudry-Corbett Endowed Chair in Mesoamerican Archaeology
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
Edward W. Carter Chair in Netherlandish Art
Morgan and Helen Chu Endowed Chair in Asian American Studies
James and Carol Collins Chair in College of Letters and Science
Lloyd E. Cotsen Chair in Archaeology
Norman Cousins Endowed Chair in Psychoneuroimmunology
D.J. and J.M. Cram Chair in Organic Chemistry
Charles E. Davidson Endowed Chair in Economics
De Logi Chair in Biological Sciences
A. Richard Diebold, Jr., Endowed Chair in Indo-European Studies
Nevin and Pratima Doshi Chair in Indian History
Mr. and Mrs. C.N. Flint Professorship in Philosophy
Christopher S. Foote Chair
Evan Frankel Endowed Chair in English
Gloria and Paul Griffin Chair in Philosophy
Haruhisa Handa Professorship in Shinto Studies
John Charles Hills Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
Richard Hovannisian Chair in Modern Armenian History
Sady and Ludwig Kahn Endowed Directorship for Jewish Studies
Penny Kanner Endowed Chair in Women's Studies
Fred Kavli Chair in Nanosystems Sciences
Kershaw Chair in Ancient Eastern Mediterranean Studies
*Leon and Joanne V.C. Knoppoff Chair in Physics and Geophysics
Alexander and Renee Kolin Endowed Professorship in Molecular Biology and Biophysics
Korea Times-Hankook Ilbo Endowed Chair in Korean American Studies and Law
Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair
Madeleine L. LeLassieur Chair in French and Francophone Studies
John McGague Career Development Chair
Dorothy L. Meier Social Equities Chair
*John Muir Memorial Endowed Chair in Geography
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 Chair
LeRoy Neiman Chair
*“1939” Club Chair
Joan Palevsky Chair in Classics
Presidential Chair in Institute of the Environment
Presidential Chair in Modern European History
Presidential Chair in Molecular Cell Biology
President’s Chair in Developmental Immunology
Hans Reichenbach Chair in Scientific Philosophy
Peter Reill Chair in European History (1450 to Modern)
Howard Reiss Career Development Chair
Maria Rowena Ross Chair in Cell Biology and Biochemistry
Michael and Irene Ross Chair in Yiddish Studies
Musa Sábi Chair in Iranian Studies
David Saxon Presidential Chair in Mathematics
David Saxon Presidential Chair in Physics
David S. Saxon Presidential Chair in Physics
Johanna F. and Joseph H. Shaper Family Chair in Microbiology
Joan Silsbee Chair in African Cultural Archaeology
Louis B. Stichter Chair in Geophysics and Planetary Physics
Kenneth L. Sokoloff Chair in Economic History
Charles Speroni Chair in Italian Literature and Culture
Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Irving and Jean Stone Endowed Chair in Life Sciences
Irving and Jean Stone Endowed Chair in Physical Sciences
Irving and Jean Stone Endowed Chair in Humanities

Richard G. Newman AECOM Endowed Chair in Electrical Engineering
William D. Warren Chair in Law
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Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Irving and Jean Stone Endowed Chair in Life Sciences
Irving and Jean Stone Endowed Chair in Physical Sciences
Irving and Jean Stone Endowed Chair in Humanities
Jean Stone Chair
UCLA Alumni and Friends of Japanese
Ancestry Chair in Japanese American Studies
UCLA Foundation Chair
Steven F. and Christine L. Udvar-Hazy Chair
*Viterbi Family Foundation Visiting Professorship in Mediterranean Jewish Studies
Alexander von Humboldt Endowed Chair in Geography
Walter and Shirley Wang Chair in U.S./China Relations and Communications
Eugen Weber Chair in Modern European History
Wendell Jeffrey and Bernice Wenzel Chair in Behavioral Neuroscience
Dean M. Willard Chair in Chemistry
Saul Weinstein Chair in Organic Chemistry
Linda and Fred Wudi Chair
Stanley M. Zimmerman Endowed Chair in Economics and Finance

**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
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 Professorship in Entrepreneurial Finance
James A. Collins Chair in Management
Warren C. Cordner Chair in Money and Financial Markets
Ernest and Young Chair in Accounting
Laurence D. and Lori W. Fink Endowed Chair in Finance
Henry Ford II Chair in International Management
Joel Fried Chair in Applied Finance
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hearsh Chair in Money and Banking
*Hans Hufschmid Chair in Management
IBM Chair in Computers and Information Systems
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
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
*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

**David Geffen School of Medicine**
William S. Adams, M.D., Chair in Medicine
Ahmanson Chair in Ophthalmology
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apt Endowed Chair in Pediatric Ophthalmology
Archstone Foundation Endowed Chair in Geriatrics
Casey Lee Ball Endowed Chair in Pediatric Nephrology
Wiley F. Barker Chair in Vascular Surgery
Dena Bat-Yacov Endowed Chair in Childhood Psychiary and Biobehavioral Sciences
Ulrich Batzdorf, M.D., Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
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
Elie and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Joseph Campbell Chair in Child Psychiatry
Iris Cantor Chair in Breast Imaging
Edward W. Carter Chair in Internal Medicine
Castora Chair in Cardiology
Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology
Carol and James Collins Chair
William E. Connor Chair in Cardiothoracic Transplantation
Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Endowed Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
Karen and Frank Dabney Endowed Chair in Ophthalmology
Dr. Afonsina O. Davies Endowed Chair in Honor of Paul Crandall, M.D., 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
Wini and William J. Dignam Chair in Obstetrics and Gynecology
John Bartley Dillon, M.D., Endowed Chair in Anesthesiology
Dourani Chair in Molecular Pharmacology
Roy and Carol Dourani Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
Joaquin M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
Laraine and David Gerber Chair in Ophthalmology
Maggie G. Gilbert Endowed Chair in Bipolar Disorders
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Interdepartmental Clinical Pharmacology
Joan S. and Ralph N. Goldwyn Chair in Immunobiology and Transplantation Research
Victor Goodhill, M.D., Chair in Head and Neck Surgery
*Steven C. Gordon Family Chair in Parkinson’s Disease Research
Julia S. Gouw Chair in Mood Disorders
Dolly Green Chair in Ophthalmology
Thomas N. Grove Chair in Anesthesiology
Maud Cady Guthman Chair in Cardiology
*Muriel Harris Chair in Geriatric Psychiatry
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Ernest G. Herman Chair in Ophthalmology
Holt and Jo Hickman Endowed Chair in Advanced Lung Disease and Lung Transplantation
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
Margaret Holden Jones-Kanaar, M.D., Chair in Cerebral Paley
Kaiser Permanente Endowed Chair in Community Medicine
Maddie Katz Endowed Chair in Palliative Care Research and Education
Ronald L. Katz, M.D., Endowed Chair in Anesthesiology
Chizuko and Nobuyuki Kawata Chair in Cardiology
Dorothy and Robert Keyser Endowed Chair
Karl Kirchgessner Foundation Chair in Vision Science
Arnold W. Klein, M.D., Chair in Dermatology
George F. Kneller Chair in Family Medicine
Kolokotrones Chair in Ophthalmology
John J. Kuiper Chair in Nephrology and Renal Transplantation
Grace and Walter Lantz Endowed Chair in Ophthalmology
Lya and Harrison Latta Endowed Chair in Pathology
Eleanor I. Leslie Chair in Innovative Brain Research
Eleanor I. Leslie Chair in Neuroscience
Eleanor I. Leslie Chair in Pioneering Brain Research
Barbara A. Levey, M.D., and Gerald S. Levey, M.D., Endowed Chair
Gerald S. Levey, M.D., Endowed Chair
*Walton Li Chair in Cornea and Uveitis
Lincy Foundation Chair in Clinical Gastroenterology
Lincy Foundation Distinguished Service Chair
William P. Longmire, Jr., Chair in Surgery
Meyer and Renee Luskin Chair in Migraine and Headache Studies
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Della Martin Chair in Psychiatry
Mattel Executive Endowed Chair in Pediatrics
David May II Chair in Ophthalmology
Henry Alvin and Carrie L. Meinhardt Chair in Kidney Cancer Research
Sherman M. Mellinkoff Distinguished Professor in Medicine Chair
Richard Metzner Endowed Chair in Clinical Neuropharmacology
Joanne and George Miller and Family Endowed Chair
Timothy A. Miller Chair in Plastic Surgery
Jeffrey Modell/Sidney Sheldon Chair in Immunology
Moss Foundation Chair in Gastrointestinal and Personalized Surgery
Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
Jane and Marc Nathanson Endowed Chair
James H. Nicholson Chair in Pediatric Cardiology
Mary Oakley Foundation Chair in Neurodegenerative Diseases
Frances M. O'Malley Administrative Chair in Neuroscience History
Oppenheimer Brothers Foundation Chair
Helga and Walter Oppenheimer Endowed Chair in Orthopaedic Oncology
Albert F. Parlow and David H. Solomon Chair for UCLA Program on Aging
Gail Patrick Endowed Administrative Chair in Brain Research
Samuel J. Pearlman, M.D., and Della Z. Pearlman Chair in Head and Neck Surgery
Carl M. Pearson, M.D., Endowed Chair in Rheumatology
Pennington Family Foundation Endowed Chair in Pediatrics
Frances and Albert Plansky Chair in Anatomy
Guitara Pierpoint Endowed Chair in Interstitial Pulmonary Fibrosis
Thomas P. and Katherine K. Pike Chair in Addictive Studies
Elizabeth R. and Thomas E. Plott Chair in Gerontology
Edith Agnes Plumb Endowed Chair in Neurobiology
*Presidential Chair in Cell Biology
Harold and Pauline Price Chair in Ophthalmology
Pritzker Family Endowed Chair in Pathology
Shlomo Raz, M.D., Chair in Urology
Resnick Chair in Eating Disorders
Revolion Chair in Women's Health
Leo G. Rigler Chair in Radiological Sciences
Augustus S. Rose Chair in Neurology
Arthur L. Rosenbaum, M.D., Chair in Pediatric Ophthalmology
Maxine and Eugene Rosenfeld Endowed Chair in Computational Genetics
*Maxine and Eugene Rosenfeld Endowed Chair in Medical Education
Carol and Saul Rosenzweig Endowed Chair in Cancer Therapies Development
Estelle, Abe, and Marjorie Sanders Chair in Cancer Research
Daljit S. and Elaine Sarkaria Endowed Chair in Diagnostic Medicine
Bernard G. Sarnat, M.D., Endowed Chair in Craniofacial Biology
Peter William Shapiro Chair for Center for Cerebral Palsy
Shapiro Family Chair in Child Development Studies and Cerebral Palsy
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
Jonathan Sinay Chair in Epilepsy
Henry E. Singleton Chair in Ophthalmology
Jack H. Skirball Chair in Multiple Sclerosis Research
Jack H. Skirball Chair in Ocular Inflammatory Eye Disease
Jack H. Skirball Chair in Pediatric Cardiology
P. Gene and Elaine Smith Endowed Chair in Alzheimer's Disease Research
Rebecca Smith Chair in A-T Research
Jerome and Joan Snyder Chair in Ophthalmology
*Joan and Jerome Snyder Chair in Cornea Diseases
George F. Solomon Professorship in Psychobiology
Norman F. Sprague Chair in Molecular Oncology
Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Ophthalmology
Fran and Ray Stark Foundation Chair in Urology
Frances Stark Chair in Neurology
Jules Stein Chair in Ophthalmology
Michael and Sue Steinber Jules Stein Chair in Ophthalmology
Dr. George Tarjan Chair in Mental Retardation
Michael E. Tennenbaum Family Endowed Chair in Creativity Research

Appendix C: Endowed Chairs / 685

Leon J. Tiber, M.D., and David S. Alpert, M.D., Chair in Medicine
Vernon O. Underwood Family Chair In Ophthalmology
Phil Woodrow Van Wagoner Professorship
Variety Club-D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Wasserman Professor of Ophthalmology
David Weil Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jolyon West Chair in Psychiatry
*Billy and Audrey Wilder Endowed Chair in Psychiatry and Neuroscience
Judith and Robert Winston Chair in Pediatric Urology

School of Nursing
Lulu Wolf Hassenberg Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Audrienne H. Moseley Chair in Community Health Research
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Chair in Women's Health Research

Meyer and Renee Luskin School of Public Affairs
Marjorie Crump Chair in Social Welfare
Luskin Endowed Chair for Dean of the School of Public Affairs
Harvey S. Perloff Chair

Jonathan and Karin Fielding School of Public Health
Fred H. Bixby Chair in Population Policy
Fred W. and Pamela K. Wasserman Endowed Chair in Health Services

School of Theater, Film, and Television
David C. Copley Chair for Study of Costume Design
Lew and Pamela Hunter/Jonathan and Janice Zakin Chair in Screenwriting
Rouben Mamoulian Visiting Chair in Film Directing
Rouben Mamoulian Visiting Chair in Theater Directing

UCLA Chancellor's Office
James S. Coleman Chair in International Development Studies
Betsy Wood Knapp Chair in Innovation and Creativity

UCLA International Institute
Ralph Bunche Chair in International Studies
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Israel Studies
Dong Soon Im and Mi Ja Im Endowed Chair in Korean Christianity
Paul I. and Hisako Terasaki Chair in Contemporary Japanese Studies
Paul I. Terasaki Chair in U.S.-Japanese Relations
APPENDIX D: Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to six 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. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellars (Microbiology and Immunology)

1970
Ehrhard Bahr (Germanic Languages)
Joseph Casacrano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehman (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 and Applied Linguistics)
Jesse J. Dukenminier (Law)
George R. Guffey (English)
Marilyn L. Kourilsky (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J.B. Allen (English)
Henry M. Chernick (Dentistry)
Richard C. Maxwell (Law)
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1978
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)

1979
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephan C. Yeazel (Law)

1980
A. R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zemnicke (Physiological Science)

1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1982
Dean Bok (Neurobiology)
Robin S. Liggert (Architecture and Urban Design, Urban Planning)
William Melnitz (Theater)
Joseph K. Perloff (Medicine)
Karen E. Rowe (English)

1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)

1984
Robert Dallek (History)
Hooshang Kangerloo (Radiological Sciences)
Jeffrey Prager (Sociology)
Stanley Siegel (Law)
Sandra A. Thompson (Linguistics)

1985
Patricia M. Greenfield (Psychology)
David F. Martin (Computer Science)
Mark W. Plant (Economics)
Ross P. Shideler (Scandinavian Section, Comparative Literature)
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)
Appendix D: Distinguished Teaching Awards / 687

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. Zoll (Law)
1990
Peter M. Narins (Physiological Science)
Gary B. Nash (History)
John S. Wiley (Law)
Merlin C. Wittrock (Education)
Ruth Yeazel (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
Caldwin B. Bedient (English)
Richard B. Kaner (Chemistry and Biochemistry)
Katherine C. King (Classics)
William G. Ouchi (Management)
Bruce Schulman (History)
1994
David A. Binder (Law)
Jon P. Davidson (Earth and Space Sciences)
Melvin Oliver (Sociology)
Barbara L. Packer (English)
E. Victor Wolfenstein (Political Science)
1995
Noriko Akatsuka (East Asian Languages and Cultures)
Douglas Hollan (Anthropology)
V.A. Kolve (English)
Jerome Rabow (Sociology)
Paul V. Reale (Music)
1996
Walter Allen (Sociology)
Judith A. Carney (Geography)
William M. Gelbart (Chemistry and Biochemistry)
Phyllis A. Guze (Medicine)
Peter B. Hammond (Anthropology)
1997
Uptal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musicology)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelenyi (Sociology)
1998
George W. Bernard (Dentistry)
Verónica 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 Gonzalez (Ecology and Evolutionary Biology)
Elizabeth A. Marchant (Spanish and Portuguese)
Mike Rose (Education)
Keith D. Stolzenbach (Civil and Environmental Engineering)
2006
Robert A. Gurval (Classics)
Patricia M. McDonough (Education)
Albert J. Moore (Law)
Kenneth A. Nagy (Ecology and Evolutionary Biology)
David L. Rigby (Geography)
Geoffrey W. Symcox (History)
2007
John A. Agnew (Geography)
Devon Carbado (Law)
Valerie J. Matsumoto (Asian American Studies, History)
Behzad Razavi (Electrical Engineering)
Daniel G. Solórzano (Education)
Blaire Van Valkenburgh (Ecology and Evolutionary Biology)
2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teodillo 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. Pflann (Applied Linguistics and Spanish and Portuguese)
Janice L. Reiff (History)
2010
Katsushi Arisaka (Physics and Astronomy)
Daniel T. Blumstein (Ecology and Evolutionary Biology)
John T. Caldwell (Film, Television, and Digital Media)
Albert J. Courey (Chemistry and Biochemistry)
Jerry Kang (Law)
Steven P. Reise (Psychology)
2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ian Krouse (Music)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundel (Ecology and Evolutionary Biology)
2012
C. Cindy Fan (Geography)
Brandon Koretz (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)
2013
Michael F. Carey (Biological Chemistry)
John J. Colicelli (Biological Chemistry)
Rachelle H. Crosbie-Watson (Integrative Biology and Physiology)
Jonathan H. Grossman (English)
Lynn A. Hunt (History)
David Delgado Shorter (World Arts and Cultures/Dance)
Megan McDonnell Sweeney (Sociology)
2014
Paul H. Barber (Ecology and Evolutionary Biology)
Earl G. Freymiller (Dentistry)
Neil K. Garg (Chemistry and Biochemistry)
Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development 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, utilizing the same criteria as that 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. Pfeffer (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 Pfotl (Writing Programs)

1992
- Janet Goodwin (Teaching English as a Second Language and Applied Linguistics)
- 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 (Teaching English as a Second Language and Applied Linguistics)
- Shelby Popham (Writing Programs)

1995
- Nicholas Collaros (French)
- Kristine S. Knaplund (Law)
- Christopher Mott (English)

1996
- Scott Bowman (Political Science)
- Timothy Tangerlini (Scandinavian Section)
- G. Jennifer Wilson (Honors and 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 (UCLA Emergency Medicine Center)

2000
- Nicole Dufresne (French)
- Thomas Holm (Law)
- Richard P. Usatine (Family Medicine)

2001
- George Leddy (Geography/International Development Studies)
- Sandra Mano (Writing Programs)
- L. Jean Perry (Molecular, Cell, and Developmental Biology)

2002
- Steven Hardinger (Chemistry and Biochemistry)
- Colleen K. Keenan (Nursing)
- Cynthia Merrill (Writing Programs)

2003
- Marjorie A. Bates (Chemistry and Biochemistry)
- Anita McCormick (Writing Programs)
- Richard Stevenson III (Dentistry)

2004
- Andrew Hsu (Philosophy)
- Kimberly Jansma (French and Francophone Studies)
- Jennifer Westbay (Writing Programs)

2005
- Susan Griffin (Writing Programs)
- William Grisham (Psychology)
- Anahid Keshishian (Near Eastern Languages and Cultures)

2006
- Roger E. Bohman (Molecular, Cell, and Developmental Biology)
- Jo Ann Damron-Rodriguez (Social Welfare)
- Gerald Wilson (Ethnomusicology)

2007
- Nancy Ezer (Near Eastern Languages and Cultures)
- Fred A. Hagigi (Health Services)
- Eric Marin (Film, Television, and Digital Media)

2008
- Leigh C. Harris (Writing Programs)
- Chi Li (Ethnomusicology)
- Robert B. Trelease (Pathology and Laboratory Medicine)

2009
- Brent Corbin (Physics and Astronomy)
- Laurence 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
- Lattifeh E. Hagigi (Near Eastern Languages and Cultures)
- Dario Nardi (Anthropology)
- John (Jay) Phelan (Life Sciences Core Curriculum)

2012
- Stuart Biegel (Education)
- Ronald Cooper (Integrative Biology and Physiology)
- Michael Lazarus (Medicine)

2013
- Randall J. Fallow (Writing Programs)
- Ganna Kudyma (Slavic Languages and Literatures)
- Joan R. Schleper (Nursing)

2014
- Teddi L. Chiester (Writing Programs)
- Robert F. Foster (Management)
- Mitchem A. Huehls (English)

GOLD SHIELD FACULTY PRIZE

The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize “recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity… and who have made a significant contribution to undergraduate education.” Preference for recipients is given to faculty members in mid-career who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.
1986-88
Michael E. Jung (Chemistry and Biochemistry)
1988-90
Patricia M. Greenfield (Psychology)
1990-92
Jeffrey C. Alexander (Sociology)
1992-94
J. William Schopf (Earth and Space Sciences)
1994-96
Albert R. Braunmuller (English)
1996-98
Peter M. Narins (Physiological Science)
1998-00
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)

2000-02
Utpal Banerjee (Molecular, Cell, and Developmental Biology)
2002-04
Richard B. Kaner (Chemistry and Biochemistry)
2004-06
Andrea M. Ghez (Physics and Astronomy)
2006-08
Robert N. Watson (English)
2007-09
William J. Kaiser (Electrical Engineering)
2008-10
Alicia Gaspar de Alba (Chicana and Chicano Studies)

2009-11
Robin L. Garrell (Chemistry and Biochemistry)
2010-12
David H. Gere (World Arts and Cultures)
2011-13
Matthew D. Lieberman (Psychology)
2012-14
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