# Academic Calendars

## 2005 – 2006

### Fall Quarter 2005
- Quarter begins: September 26
- Instruction begins: September 29
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 24-25
- Instruction ends: December 9
- Common final examinations: December 10-11
- Final examinations: December 12-16
- Quarter ends: December 16
- Christmas holiday: December 26-27
- New Year's holiday: December 30-January 2

### Winter Quarter 2006
- Quarter begins: January 4
- Instruction begins: January 9
- Martin Luther King, Jr. holiday: January 16
- Presidents' Day holiday: February 20
- Instruction ends: March 17
- Common final examinations: March 18-19
- Final examinations: March 20-24
- Quarter ends: March 24

### Spring Quarter 2006
- Quarter begins: March 29
- César Chávez holiday: March 31
- Instruction begins: April 3
- Memorial Day holiday: May 29
- Instruction ends: June 9
- Common final examinations: June 10-11
- Final examinations: June 12-16
- Quarter ends: June 16
- Commencement ceremonies: June 16-18

## 2006 – 2007

### Fall Quarter 2006
- Quarter begins: September 25
- Instruction begins: September 28
- Veterans Day holiday: November 10
- Thanksgiving holiday: November 23-24
- Instruction ends: December 8
- Common final examinations: December 9-10
- Final examinations: December 11-15
- Quarter ends: December 15
- Christmas holiday: December 25-26
- New Year's holiday: December 29-January 1

### Winter Quarter 2007
- Quarter begins: January 3
- Instruction begins: January 8
- Martin Luther King, Jr. holiday: January 15
- Presidents' Day holiday: February 19
- Instruction ends: March 16
- Common final examinations: March 17-18
- Final examinations: March 19-23
- Quarter ends: March 23

### Spring Quarter 2007
- Quarter begins: March 28
- César Chávez holiday: March 30
- Instruction begins: April 2
- Memorial Day holiday: May 28
- Instruction ends: June 8
- Common final examinations: June 9-10
- Final examinations: June 11-15
- Quarter ends: June 15
- Commencement ceremonies: June 15-17

## Online Publications

The UCLA General Catalog is available online 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)
Every effort has been made to ensure the accuracy of the information presented in the 
UCLA General Catalog. However, all courses, course descriptions, instructor designa-
tions, curricular degree requirements, and fees described herein are subject to change or
deletion without notice.

The departmental websites referenced in department addresses in this catalog are main-
tained by independent operators and do not necessarily reflect approved curricula and 
courses information. Consult the online catalog for the most current, officially approved 
courses and curricula.

Other information about UCLA may be found in the announcements of the Schools of 
Dentistry, Education and Information Studies, Engineering and Applied Science, Law, 
Management, Medicine, Nursing, Public Affairs, and Public Health, and in literature 
produced by the School of the Arts and Architecture and School of Theater, Film, and 
Television. The most current information on graduate programs is available online at 
http://www.gdnet.ucla.edu, which contains a link to Graduate Division publications, 
including Program Requirements for UCLA Graduate Degrees which has the complete 
text for officially approved graduate programs.

UCLA Accreditation

UCLA is accredited by the Western Association of Schools and Colleges and by numer-
ous special agencies. Information regarding the University's accreditation may be 
obtained in the Office of Academic Planning and Budget, 2107 Murphy Hall.

Western Association of Schools and Colleges
985 Atlantic Avenue, Suite 100
Alameda, CA 94501
(510) 748-9001
FROM THE CHANCELLOR OF UCLA

The UCLA General Catalog for 2005-2007 presents the myriad academic opportunities available at one of America’s most comprehensive universities.

UCLA is a premier center for education, research, and service. We consistently strive for excellence, and our academic programs are ranked among the world’s best.

As a research university committed to bringing the creation of knowledge into the classroom and across the disciplines, we are especially proud of the extraordinary richness and diversity of our teaching program—185 majors and more than 11,000 courses that link research with instruction in the UCLA College of Letters and Science and 11 professional schools.

This catalog includes opportunities for graduate and undergraduate students, including those that offer priority enrollment for lower division students. Among these are the Fiat Lux Seminars (small classes that explore a broad array of subjects), Freshman Clusters (year-long, team-taught interdisciplinary examinations of an array of timely topics), and opportunities for student research.

On our campus, we nurture a vibrant academic community of UCLA faculty and student scholars, who advance knowledge, pursue intellectual achievement, address social challenges, and engage with the surrounding region in many ways.

I encourage you to continue your exploration of UCLA beyond this catalog. Please visit us on campus, or online at http://www.ucla.edu.

Albert Carnesale
Chancellor
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<td>Physics and Astronomy Department</td>
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<td>Astronomy</td>
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<td>Physics</td>
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<td>Conservation of Archaeological and Ethnographic Materials Interdepartment Program</td>
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<td>Microbiology, Immunology, and Molecular Genetics</td>
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<td>Biomedical Physics Interdepartmental Program</td>
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<td>Civil and Environmental Engineering Department</td>
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<td>Computer Science Department</td>
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<td>Electrical Engineering Department</td>
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<td>Mechanical and Aerospace Engineering Department</td>
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<td>John E. Anderson Graduate School of Management</td>
<td>M.B.A., M.S., C.Phil., Ph.D.</td>
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<td>Architecture and Urban Design Department</td>
<td>M.Arch. I, M.Arch. II, M.A., Ph.D.</td>
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<td>Art Department</td>
<td>M.A., M.F.A.</td>
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<tr>
<td>Design</td>
<td>M.A., M.F.A.</td>
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<td>Ethnomusicology Department</td>
<td>M.A., C.Phil., Ph.D.</td>
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<tr>
<td>World Arts and Cultures Department</td>
<td>M.A., Ph.D.</td>
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<td>Dancing</td>
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<td>World Arts and Cultures</td>
<td>B.A.</td>
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<tr>
<td>School of Dentistry</td>
<td>D.D.S.</td>
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<td>Oral Biology Section</td>
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<tr>
<td>School of Law</td>
<td>J.D., S.J.D.</td>
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<td>School of Nursing</td>
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<td>Environmental Health Sciences Department</td>
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<td>School of Pharmacy</td>
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<td>Preventive Medicine and Public Health</td>
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Undergraduate Minors and Specializations

MINORS

John E. Anderson Graduate School of Management
- Accounting

Graduate School of Education and Information Studies
- Education Studies

College of Letters and Science
- African Studies
- Afro-American Studies
- American Indian Studies
- Anthropology
- Arabic and Islamic Studies
- Armenian Studies
- Art History
- Asian American Studies
- Asian Humanities
- Asian Languages
- Atmospheric and Oceanic Sciences
- Chicana and Chicano Studies
- Classical Civilization
- Cognitive Science
- Comparative Literature
- English
- Environmental Systems and Society
- French
- Geochemistry
- Geography
- Geography/Environmental Studies
- Geology
- Geophysics and Planetary Physics
- German
- Germanic Languages
- Gerontology
- Global Studies
- Greek
- Hebrew and Jewish Studies
- History of Science and Medicine
- Italian
- Labor and Workplace Studies
- Language, Interaction, and Culture
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual, and Transgender Studies
- Linguistics
- Mathematics
- Mexican Studies
- Middle Eastern and North African Studies
- Museum Studies
- Music History
- Naval Science
- Near Eastern Languages and Cultures
- Neuroscience
- Philosophy
- Political Science
- Portuguese
- Russian Language
- Russian Literature
- Russian Studies
- Scandinavian
- Social Thought

South Asian Studies
- Southeast Asian Studies
- Spanish
- Spanish Linguistics
- Statistics
- Teaching English as a Second or Foreign Language
- Women's Studies

School of Public Affairs
- Public Affairs

School of Public Health
- Public Health

SPECIALIZATIONS

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

Graduate Concurrent and Articulated Degrees

CONCURRENT DEGREES

Degree Program number one
Degree Program number two

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

Afro-American Studies Interdepartmental M.A. — Law J.D.
American Indian Studies Interdepartmental M.A. — Law J.D.
Architecture M.Arch. I — Urban Planning M.A.
Asian American Studies Interdepartmental M.A. — Public Health M.P.H.
Asian American Studies Interdepartmental M.A. — Social Welfare M.S.W.
Education M.A., Ph.D., M.Ed., or Ed.D. — Law J.D.
History M.A. — Library and Information Science M.L.I.S.
Islamic Studies Interdepartmental M.A. — Public Health M.P.H.
Latin American Studies Interdepartmental M.A. — Urban Planning M.A.
Management M.B.A. — Computer Science M.S.
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. — Public Policy M.P.P.
Management M.B.A. — Urban Planning M.A.
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.A. — Law J.D.

ARTICULATED DEGREES

Degree Program number one
Degree Program number two

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

African Studies Interdepartmental M.A. — Public Health M.P.H.
Latin American Studies Interdepartmental M.A. — Education M.Ed. in Curriculum
Latin American Studies Interdepartmental M.A. — Library and Information Science M.L.I.S.
Latin American Studies Interdepartmental M.A. — Public Health M.P.H.
Medicine M.D. — Graduate Division health science major Ph.D.
Dental Biology M.S. or Ph.D. — Dentistry D.D.S. or Certificate
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, and staff come together in a true community of scholars to advance knowledge, address societal challenges, and pursue intellectual and personal fulfillment.

TEACHING

The Conference Board of Associated Research Councils, which evaluates the quality of the faculty in 274 American research universities, rates UCLA fourteenth in the nation among both public and private universities. Of the 41 doctoral degree disciplines studied, 11 UCLA academic departments are ranked among the top 10 in the country and 20 are 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, School of Public Affairs and, in the health sciences, the School of Dentistry, David Geffen School of Medicine, and School of Public Health.

Undergraduates may earn a Bachelor of Arts or Bachelor of Science degree in one of 124 different disciplines; graduate students may earn one of 89 master’s and 108 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 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 $755 million in 2003-04 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 undergraduates, 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 a new state-of-the-art hospital to open in 2006, 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 treatment from School of Dentistry clinics on campus, in Venice, or in east Los Angeles. The Santa Monica-UCLA Medical Cen-
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—formed a lonesome cluster in the middle of 400 empty acres. The campus hosted some 5,500 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 715-bed teaching hospital that is now one of the largest and most highly respected in the world.

The University of California System

The University of California traces its origins to 1868, when Governor Henry H. Haight signed the Organic Act providing for California’s first “complete University.” Classes began the following year at the College of California in Oakland. The first buildings on the Berkeley campus were completed in 1873, and the University moved into its new home. The following June, the University conferred bachelor’s degrees on 12 graduates.

Today the University is one of the largest and most renowned centers of higher education in the world. Its 10 campuses span the state, from Davis in the north to San Diego in the south. In between are Berkeley, San Francisco, Santa Cruz, Merced, Santa Barbara, Riverside, Irvine and, of course, Los Angeles.

All campuses adhere to the same admission guidelines and high academic standards, yet each has its own distinct character and academic individuality. Riverside, for example, excels in the plant sciences and entomology; Davis has a large agricultural school and the University’s only veterinary medicine program; San Diego has excellent oceanography and marine biology programs; San Francisco is devoted exclusively to the health sciences. Among the campuses there are five medical schools and three law schools, as well as schools of architecture, business administration, education, engineering, and many others.

The UC campuses have a combined enrollment exceeding 201,000 students, over 90 percent of them California residents. About one fifth study at the graduate level. Some 150 laboratories, extension centers, and research and field stations strengthen teaching and research while providing public service to California and the nation. The collections of over 100 UC libraries on the 10 campuses are surpassed in size on the American continent only by the Library of Congress collection.

The UC faculty is internationally known for its distinguished academic achievements. On its 10 campuses the University has 27 Nobel laureates, and membership in the National Academy of Sciences is the largest of any university in the country.

The UC system is governed by a Board of Regents whose regular members are appointed by the Governor of California. In addition to setting general policy and making budgetary decisions for the UC system, the Regents appoint the President of the University, the 10 chancellors, and the directors and deans who administer the affairs of the individual campuses and divisions of the University.

The Regents delegate authority in academic matters to the Academic Senate, which determines academic policy for the University as a whole. The Senate, composed of faculty members and certain administrative officers, determines the conditions for admission and granting of degrees, authorizes and supervises courses and curricula, and advises University administrators on budgets and faculty appointments and promotions. Individual divisions of the Universitywide Academic Senate determine academic policy for each campus. Students participate in policy-making at both campuswide and systemwide levels.
ter’s Rape Treatment Center offers 24-hour care to victims. The 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 clinic at Skid Row’s 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 into 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 313 buildings on 419 acres house the College of Letters and Science plus 11 professional schools and serve more than 37,563 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 Admissions and Relations with Schools offers tours tailored to prospective undergraduates. See [http://www.admissions.ucla.edu/tours.htm](http://www.admissions.ucla.edu/tours.htm). ☎ 310-825-8764

**A LARGE CAMPUS WITH A COMFORTABLE FEEL**

The general campus population, some 33,569 students, is enriched by an additional 3,994 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, 96 percent of lower division lecture classes in 2004-05 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 18 students.

Most UCLA faculty members set aside office hours for students and appreciate the opportunity for informal conversation. Professors are often aided by graduate student teaching assistants (TAs) who are available to talk about academic problems.

**A DYNAMIC STUDENT BODY**

Students at UCLA pride themselves on academic excellence. The Fall Quarter 2004 entering freshman class had an average high school GPA of 4.12, with an average composite score on the Scholastic Assessment Test (SAT) of 1,290 out of a possible 1,600.

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 more than 130 foreign countries to study at UCLA. Ethnic minorities comprise 65.7 percent of the undergraduates and 51.9 percent of the graduate student population, and international students and scholars presently number over 4,320, 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. Summer Sessions and UCLA Extension 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 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.

**Summer Sessions and Special Programs**

Throughout the summer, UCLA offers more than 500 courses from approximately 60 UCLA departments in six-, eight-, and 10-week sessions. In addition, more than 30 specialized institutes offer concentrated programs in business, the arts, law, medicine, languages, and other subjects. Travel Study programs offer the option to study language, culture, and history 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, repeat courses in which they may have done poorly, lighten their academic load for the following term, or complete graduation requirements more quickly. Some special programs are designed for advanced high school students.

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 the 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 the graduate adviser in advance concerning this possibility. Summer Sessions courses may also satisfy the academic residence requirement for master’s or doctoral degrees.

Unlike enrollment in regular terms, students may attend another college institution for credit while they are enrolled in Summer Sessions. Registration information is available in 1147 Murphy Hall. See http://www.summer.ucla.edu. ☎ 310-825-4101

**UCLA Extension**

With over 65,000 adult student enrollments each year, UCLA Extension is one of the largest university continuing education programs in the world. It is designed to bring the benefits of the University—its scholars, research, and resources—to the community and the state as a whole.

Many of UCLA Extension’s 4,500 classes are innovative and experimental in content, format, and teaching methods. Credit and noncredit courses are offered in nearly every academic discipline, in many interdisciplinary areas, and in emerging fields.

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

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

The Extension Advisory Service offers assistance in planning long- or short-term study through Extension. The office is located in 114 UCLA Extension Building, 10995 Le Conte Avenue. See http://www.uclaextension.edu. ☎ 310-206-6201

To obtain the current **UCLA Extension Catalog**, request a copy online at the website above or contact the Registration Office. ☎ 310-825-9971

**Research Programs**

At any given time, more than 5,000 funded research programs are in progress at UCLA. For information on any of the programs listed below, see http://www.research.ucla.edu/labs/.

**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. See http://www.ovcr.ucla.edu/research/oru_vcr.html.
BRAIN RESEARCH INSTITUTE
The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with more than 250 scientists 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 school outreach program and a joint educational program with UCLA Extension. See http://www.bri.ucla.edu. ☎ 310-825-5061

CENTER FOR MEDIEVAL AND RENAISSANCE STUDIES
The Center for Medieval and Renaissance Studies (CMRS) supports the research activities of some 30 academic disciplines dealing with the development of civilization between A.D. 300 and 1650. Programs include appointing visiting professors, organizing conferences, and supporting departments in inviting lecturers. The center sponsors two journals, Viator with emphasis on intercultural and interdisciplinary studies, and Comitatus, with articles by graduate students and recent Ph.D. graduates. See http://www.humnet.ucla.edu/cmrs/. ☎ 310-825-1880

CENTER FOR SEVENTEENTH- AND EIGHTEENTH-CENTURY STUDIES
The Center for Seventeenth- and Eighteenth-Century Studies organizes scholarly programs and workshops, publishes conference results, provides long- and short-term fellowships to students and scholars, offers graduate research assistantships and master classes, and organizes public programs and classical music concerts. See http://www.humnet.ucla.edu/humnet/c1718cs/. ☎ 310-206-8552

The center administers the William Andrews Clark Memorial Library, located 13 miles from UCLA, which specializes in seventeenth- and eighteenth-century British works. It also has a renowned collection centering on Oscar Wilde and his era and significant holdings of modern fine printing and Western Americana. See http://www.humnet.ucla.edu/humnet/clarklib/. ☎ 323-731-8529

CENTER FOR THE STUDY OF WOMEN
The Center for the Study of Women (CSW) draws on the energies of more than 245 faculty members from 10 professional schools and 34 departments. To facilitate faculty research, the center organizes conferences and lecture series on feminist theory, administers research grants, and offers an affiliation for research and visiting scholars. The center sponsors working groups, produces calendar of events posters, and hosts graduate programs, as well as an annual graduate student research conference. See http://www.csu.wcl.edu. ☎ 310-825-0590

COTSEN INSTITUTE OF ARCHAEOLOGY
The Cotsen Institute of Archaeology 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 40 researchers and many graduate students and volunteers in 10 associated academic departments. Facilities include the Information Center (regional office of the California Archaeological Inventory), Ceramics Laboratory, Computer Imaging of Archaeological Data, Obsidian Hydration and Lithic Analysis Laboratory, Paleoethnobotany Laboratory, Rock Art Archive, and Zooarchaology 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. ☎ 310-206-8934

CRUMP INSTITUTE FOR MOLECULAR IMAGING
The Crump Institute for Molecular Imaging brings together physical, biostatistical, 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. ☎ 310-825-6539

DENTAL RESEARCH INSTITUTE
The Dental Research Institute (DRI) fosters professional 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 Sci-
institutions and are listed at http://www.ssc.ucla.edu/aasc/. ☎ 310-825-7315

**Asian American Studies Center**

The Asian American Studies Center 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, postdoctoral fellowships, and B.A., undergraduate minor, and master’s programs. See http://www.ssc.ucla.edu/aasc/. ☎ 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. See http://www.chicano.ucla.edu. ☎ 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, geochemistry, space physics, biochemistry, and biology. Research topics include the nature of the Earth, moon, and other planetary bodies; global and regional environmental change; the origin of terrestrial life; dynamical properties of the sun and solar wind; and the nonlinear dynamics of complex systems. Facilities include analytical laboratories in geochemistry, meteoritics, glaciology, petrology, geochronology, archaeology, and the origins of life; laboratories for experiments in fluid dynamics and high-pressure physics; developmental laboratories for instrumentation in space physics and seismology; and computational laboratories for large-scale numerical modeling. See http://www.igpp.ucla.edu. ☎ 310-206-2285

**INSTITUTE OF INDUSTRIAL RELATIONS**

The interdisciplinary research program of the Institute of Industrial Relations (IIR) 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. See http://www.iir.ucla.edu. ☎ 310-794-5957

**INSTITUTE FOR SOCIAL SCIENCE RESEARCH**

The Institute for Social Science Research (ISSR) promotes interdisciplinary research on contemporary sociological, psychological, political, and economic problems and community issues. Research components include the Center for American Politics and Public Policy, Center for the Study of Urban Poverty, Center for Research in Society and Politics, Center for Social Theory and Comparative History, Survey Research Center, Social Science Data Archive, and Organizational Research Program. Training in survey research methodology is available to students through participation in the annual Los Angeles County Social Survey. The institute publishes the ISSR Working Papers in the Social Sciences. See http://www.sscnet.ucla.edu/issr/. ☎ 310-825-0711

**JULES STEIN EYE INSTITUTE**

The Jules Stein Eye Institute is one of the best equipped centers for research and treatment of eye diseases in the world. This comprehensive facility is devoted 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://jsei.org. ☎ 310-825-5000
The Doris Stein Eye Research Center houses clinical facilities as well as new research and training programs concentrating on major eye diseases worldwide.

Molecular Biology Institute
The Molecular Biology Institute (MBI) promotes molecular biology research and teaching at UCLA. The institute houses the laboratories of 30 MBI members, as well as the administration of the Molecular Biology Interdepartmental Ph.D. Program, the UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, and the UCLA ACCESS to Programs in the Molecular, Cellular, and Integrative Life Sciences. See http://www.mbi.ucla.edu. ☎ 310-825-1018

Neuropsychiatric Institute
The Neuropsychiatric Institute and affiliated units—including the Neuropsychiatric Hospital, the Department of Psychiatry and Biobehavioral Sciences, and one organized research unit, the Mental Retardation Research Center—provide UCLA's leadership in the study and treatment of disorders of human behavior, the brain, and the mind. See http://www.npi.ucla.edu.

Mental Retardation Research Center
The Mental Retardation Research Center provides laboratories and clinical facilities for research and training in mental retardation and related aspects of human development. Interdisciplinary activities range from anthropological studies to molecular aspects of inherited metabolic diseases. See http://www.mrrc.npi.ucla.edu/mrrc/. ☎ 310-825-0313

Plasma Science and Technology Institute
The Plasma Science and Technology Institute is dedicated to research of plasma physics, fusion energy, and the application of plasmas in other disciplines. Students, professional research staff, and faculty 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/pstl/. ☎ 310-825-4789

UCLA-DOE Laboratory of Structural Biology and Molecular Medicine
The UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, funded though a Department of Energy contract, conducts research in molecular nuclear medicine and structural biology and genetics. Laboratory 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, nuclear magnetic resonance, protein expression, and X-ray crystallography facilities. See http://www.doe-mbi.ucla.edu/overview.html. ☎ 310-825-3754

UCLA International Institute
The UCLA International Institute oversees four study centers that are designated ORUs.

James S. Coleman African Studies Center
The Coleman African Studies Center 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://www.international.ucla.edu/africa/. ☎ 310-825-3686

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 offers an interdepartmental undergraduate major and provides fellowships to graduate students in European area studies. See http://www.international.ucla.edu/euro/. ☎ 310-825-4060

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 administers the degree programs in Middle Eastern and North African Studies and 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://www.international.ucla.edu/cnes/. ☎ 310-825-1181

Latin American Center
The Latin American Center is a major regional, national, and international resource on Latin America and hemispheric issues. The center 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 center promotes the use of UCLA Latin American resources for the benefit of the campus, the broader community, and the public at large. See http://www.international.ucla.edu/lac/. ☎ 310-825-4571

***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 Center for Astrobiology—which is developing new strategies for Mars exploration—and the Jonsson Comprehensive Cancer Center—one of only 41 comprehensive centers in the nation.

Interdisciplinary activities in the social sciences include the nationally respected UCLA Anderson Forecast in UCLA’s John E. Anderson Graduate School of Management and the Center for Study of Evaluation in the Graduate School of Education and Information Studies, which is at the forefront of efforts to improve the quality of schooling in America.

In the health sciences, research ranges from neurological and neuromuscular diseases at the Reed Neurological Research Center to epidemiology, immunology, and the clinical management of AIDS at the UCLA AIDS Institute and the Center for Clinical AIDS Research and Education. The 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 makes connections between a wide spectrum of mathematicians and scientists and broadens the range of applications in which mathematics is used. On other frontiers, the Center for Embedded Networked Sensing, 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 the Study of Urban Poverty initiates new research on issues related to urban poverty and sponsors seminars in the field. The Center for Policy Research on 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 outdoor 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 OF CULTURAL HISTORY***

The Fowler Museum of Cultural History 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, Oceania, and Latin America. 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/. ☎ 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, and photographs, 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://www.hammer.ucla.edu/collections/3/. ☎ 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 Rodin, Matisse, Calder, Lachaise, Lipchitz, Moore, Miró, Hepworth, 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://www.hammer.ucla.edu/collections/4/.
☎ 310-443-7000

NEW WIGHT GALLERY
The New Wight Gallery is an exhibit space for visual arts, including student and faculty exhibitions. The gallery is housed in the Kinross Building. See http://www.art.ucla.edu/gallery.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 "Dialogues on Art," are presented throughout the week. For information on programming, hours, and docent tours, see http://www.hammer.ucla.edu. ☎ 310-443-7000

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 7.6 million volumes, and nearly 80,000 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, Institute for Social Science Research Data Archives Library, and Instructional Media Library. It also provides library item location and circulation status.

The California Digital Library, a library for the entire University of California system, provides access to the Melvyl Catalog, 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 Policy Building, the Arts Library collects material on architecture, art, art history, design, film, television, history of architecture, photography as fine art, studio art, and theater. It also contains the Elmer Belt Library of Vinciana, a special collection of rare books and incunabula about Leonardo da Vinci and related materials in Renaissance studies. Arts Special Collections, housed in the Young Research Library, contain non-circulating materials, including the Princeton Index of Christian Art, 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/.

CHARLES E. YOUNG RESEARCH LIBRARY
The Young Research Library primarily serves graduate research in the humanities, social sciences, education, public affairs, and urban planning. Most of its collections are arranged in open stacks. The building also houses reference, circulation, graduate reserve, and periodicals services and the Microform and Media Service, with microcopies of newspapers, periodicals, and other materials. The Department of Special Collections contains rare books and pamphlets, primarily in the humanities and social sciences, from the fifteenth to twentieth century, university archives, early maps and atlases, early California newspapers, manuscript collections, transcripts of oral history, ephemera, microfilm, tape recordings, prints, paintings, and drawings, including original architectural drawings. See http://www.library.ucla.edu/libraries/yrfl/.

COLLEGE LIBRARY
The College Library, located in the Powell Library Building, features collections and services in support of the undergraduate curriculum in the humanities, social and physical sciences, and mathematics. Course reserve materials, including books, articles, audiotapes, homework solutions, lecture notes, and Academic Publishing Service Readers, are available for loan. The College Library Instructional Computing Commons, located on the first floor of Powell Library, provides students with access to computers and multimedia equipment, and Night Powell

The UCLA Library is among the top research libraries in the U.S.
EUGENE AND MAXINE ROSEN Feld MANAGEMENT LIBRARY
Located in the John E. Anderson Graduate School of Management complex, the Rosenfeld Management Library houses materials on accounting information systems, arts management, business history, corporate history, entrepreneurship, finance, general management and management theory, industrial relations, international and comparative management, management information systems, management strategy and policy, marketing, operations, research, production and operations management, public/not-for-profit management, and real estate. See http://www.anderson.ucla.edu/library.xml.

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 foreign and comparative law holdings. The Law Library reports to the dean of the School of Law. See http://www.law.ucla.edu/home/index.asp?page=11.

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, 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. See http://www.library.ucla.edu/libraries/biomed/.

MUSIC LIBRARY
The collections of the Music Library in the Schoenberg Music Building include books, music scores, 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. Music Special Collections 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; it also houses the Archive of Popular American Music, a special collection of published and manuscript sheet music, recordings, and related materials. See http://www.library.ucla.edu/libraries/music/.

RICHARD C. RUDOLPH EAST ASIAN LIBRARY
Located in the Young Research Library, the Rudolph East Asian Library collects Chinese, Japanese, and Korean language materials in the humanities and social sciences. The collection is particularly strong in Japanese Buddhism, religion, Chinese and Japanese fine arts, Chinese archaeology, premodern history and classical literature on both China and Japan, and Korean literature and religion. See http://www.library.ucla.edu/libraries/eastasian/.

SCIENCE AND ENGINEERING LIBRARY
The Science and Engineering Library (SEL) collections on engineering, mathematics, and the physical sciences are housed in three separate locations. SEL/Young Hall houses materials on chemistry, biochemistry, and molecular biology; solid-state, elementary particle, high-energy, mathematical, nuclear, and plasma physics; acoustics; spectroscopy; optics; and astrophysics. SEL/Boelter 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; and pollution. SEL/Geology Building houses materials on geology, geophysics, geochemistry, space physics, planetary science, regional geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, and chemical oceanography. See http://www.library.ucla.edu/libraries/else/.

SPECIAL ARCHIVES AND COLLECTIONS
In addition to the extensive collections of the University Library, a rich array of other information resources are independently managed by individual UCLA departments and centers.

CULTURAL CENTER COLLECTIONS
The Center for African American Studies Library contains materials reflecting the African American experience in the social sciences, arts, and humanities. The American Indian Studies Center Library houses a collection on American Indian life, culture, and state of affairs in historical and contemporary perspectives, while the Asian American Studies Center Reading Room features Asian and Pacific American resources.

Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library, and the William Andrews Clark Memorial Library contains rare books, manuscripts, and other noncirculating materials on English culture (1640 to 1750). The English Reading Room features a noncirculating collection of English and American literature, literary history, and criticism.
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 220,000 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, Warner Brothers, Sony/Columbia, Republic, RKO, New World Pictures, and Orion. Special collections document the careers of William Wyler, Hal Ashby, Tony Curtis, Rosalind Russell, Stanley Kramer, Cecil B. DeMille, Harold Lloyd, 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. ☎ 310-206-8013

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

OTHER COLLECTIONS

The Ethnomusicology Archive houses sound recordings of folk, ethnic, and non-Western classical music, while the Institute for Social Science Research Data Archives Library contains a collection of statistical databases for the social sciences. The University Elementary School Gonda Family Library features contemporary materials for children from kindergarten through junior high school and adult works on children’s literature.

COMPUTER SUPPORT

The exciting pace of computer technology demands an environment where information systems are recognized as a strategic requirement with a strong focus of attention, and where there is a solid technology foundation already in place. UCLA provides that environment and ensures hardware, software, and training to support research and study.

ACADEMIC TECHNOLOGY SERVICES

Academic Technology Services (ATS) provides resources and services that support the UCLA distributed computing environment. Through its five service areas ATS seeks to facilitate cross-departmental information technology initiatives, provide specialized resources to faculty and students in pursuit of their research and instructional goals, and leverage the volume purchasing power of the University. See http://www.ats.ucla.edu. ☎ 310-825-6635

Training and consulting services include classes and online seminars in statistical applications, high-performance computing, scientific visualization, and geographical information systems. See http://www.ats.ucla.edu/classes/. ☎ 310-825-7431

Through Software Central, ATS informs the UCLA community of software available at educational or special volume discounts and provides technical support for many applications. See http://www.ats.ucla.edu/software/. ☎ 310-206-4780

RESEARCH COMPUTING TECHNOLOGIES

Research Computing Technologies offers integrated services to faculty. Areas of expertise include technical and administrative grant development support; storage and management tools for research and instructional data; analysis and interpretation of complex data sets through statistical and visualization support; high-performance network consulting services for research; and high-performance computing through Beowulf clusters, consulting support for faculty to access the National Supercomputer Centers, and support for the development of central and local commodity-based Linux clusters. See http://www.ats.ucla.edu/at/. ☎ 310-206-7323
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. ☎ 310-206-7133

STUDENT COMPUTER LABORATORIES

Student laboratories are supported through Academic Technology Services and the College Library Instructional Computing Commons. See Student Services later in this chapter for information.

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 http://www.eeb.ucla.edu/dickey/index.html. ☎ 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 http://www.dlam.ucla.edu. ☎ 310-825-7281

HANNAH CARTER JAPANESE GARDEN

One mile from the UCLA campus in Bel Air, the Japanese Garden provides a unique illustration of art and nature for courses such as landscape architecture, environmental design, East Asian studies, and art classes. The Kyoto-style terraced garden was designed by Japanese artisans using native plants and artifacts. Traditional features such as a teahouse, shrine, antique stone water basins, and a koi pond are enjoyed by faculty, students, school and community groups, and others. Visits are by reservation only. See http://www.japanesegarden.ucla.edu. ☎ 310-825-4574

MARINE SCIENCE CENTER

The Marine Science Center coordinates marine-related teaching and research on campus and facilitates interdepartmental interaction of faculty 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. ☎ 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. ☎ 310-825-1260

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 and Space Sciences, Ecology and Evolutionary Biology, Geography, Physics and Astronomy, and the Institute of the Environment utilize Stunt Ranch and other NRS sites. See http://nrs.ucop.edu/reserves/stunt.html. ☎ 310-206-3887
ABOUT UCLA

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 major 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. Using BOL, students enroll in classes or access student records through URSA, check class availability in the online Schedule of Classes, search the UCLA Library collections, access their Study Lists through MyUCLA, and connect to a range of campus events, programs, and services.

Bruin OnLine services include dial-up access to the campus backbone network and the Internet, e-mail accounts, and space for personal webpages. Wireless Internet access is available in select campus locations for BOL account holders. BOL Internet access software can be downloaded from the BOL website. Help desk services are available online, by telephone, and at the BOL office in Kerckhoff Hall. See http://www.bol.ucla.edu. ☎ 310-825-7452

COMPUTER LABORATORIES

Student laboratories are supported through Academic Technology Services (ATS) and the College Library Instructional Computing Commons (CLICC), a collaborative effort between ATS, Center for the Digital Humanities, Social Sciences Computing, Office of Instructional Development, and College Library. Some 16 computer laboratories are available throughout the campus, each with computers, peripherals, software, and services that cater to specific areas of study. See http://www.computer labs.ucla.edu. ☎ 310-206-0271

COURSE WEB PAGES

The Instructional Enhancement Initiative assures that all undergraduate nontutorial courses in the College of Letters and Science and the Henry Samueli School of Engineering and Applied Science provide an individual course website for faculty, teaching assistants, and enrolled students. The sites facilitate the distribution of supplementary course materials, lecture notes, homework assignments, research links, and electronic communication, including virtual office hours and class bulletin boards for interactive question and answer sessions. Instructors decide which of these online capabilities are best suited to their course websites.

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://www.uclaestore .com/ucla/outerweb/lecturenotes.asp. ☎ 310-825-8016

Academic Publishing provides custom course readers, obtaining 5,000 copyright authorizations each year. See http://www.uclaestore.com/ucla/outerweb/ academicpublishing.asp. ☎ 310-825-2831

MYUCLA

MyUCLA provides a portal to individual student information. Features include a personalized Study List showing classes and class information such as grades; 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 URSA, the Schedule of Classes, and UCLA General Catalog.

WebMail provides students an intuitive way to access private e-mail accounts from any computer via MyUCLA.

Letters and Science students are able to obtain additional services, including the ability to view their counseling appointments, check the status of petitions, and track their honors progress. See http://my.ucla.edu.
UNIVERSITY RECORDS SYSTEM ACCESS

Through University Records System Access (URSA), UCLA students acquire academic, financial, and personal information from their University academic records and enroll in classes. URSA operates Sunday from 6 p.m. through Tuesday at 1 a.m. and Tuesday through Saturday from 6 a.m. to 1 a.m., including holidays. See http://www.ursa.ucla.edu.

For most students, URSA provides the easiest way to gain real-time access to 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 see term grades. URSA also provides a convenient way to enroll in classes, to verify enrollment status for recipients of Social Security benefits.

Veterans Affairs and Social Security Services

The Veterans Affairs coordinator, 1113 Murphy Hall, 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 Social Security benefits.

SERVICES FOR HEALTH AND SAFETY

ARTHUR ASHE STUDENT HEALTH AND WELLNESS CENTER

The Ashe Student Health and Wellness Center in Westwood Plaza is an out-patient clinic for UCLA students. Most services are subsidized by registration fees, and a current BruinCard is required for service. Core (prepaid) services include visits, most procedures, X rays, and some laboratory procedures. Noncore (fee) services, such as pharmaceuticals, injections, orthopedic devices, and some laboratory procedures, are less costly than elsewhere. 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. ☎ 310-825-4073

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 supplemental medical insurance either through the UCLA-sponsored Graduate and Undergraduate Student Health Insurance Plans 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, and men’s health clinics, as well as on dental care which is 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.

MENTAL HEALTH SERVICES

Services for mental health range from routine counseling and psychotherapy to a phone hot line.

Student Psychological Services

Student Psychological Services (SPS) offers short-term personal counsel and psychotherapy in 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.

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 counseling is also available. See http://www.sps.ucla.edu.

SPS 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).

UCLA Peer Helpline

UCLA Peer Helpline is an after-hours crisis intervention and referral hot line staffed by trained UCLA volunteers. Students can call and talk to a peer counselor about school stress, relationship problems, loneliness, depression, drug problems, suicide, or anything else that is on their mind. ☎ 310-825-HELP

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://www.ucpd.ucla.edu. ☎ 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.
ABOUT UCLA

See http://www.ucpd.ucla.edu/ucpd/cso/escorts.html. ☎ 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. See http://www.ucpd.ucla.edu/ucpd/cso/vanroutes2.htm. ☎ 310-825-9800

UCLA Sexual Violence 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.thecenter.ucla.edu/sexviol.html. ☎ 310-825-3945

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 http://www.cpc.mednet.ucla.edu. ☎ 310-794-8797

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. ☎ 310-825-5689

ASSOCIATED STUDENT SERVICES

Founded when UCLA opened in 1919, the Associated Students UCLA provides services to the campus community through student government, publications, and services and enterprises. Every registered UCLA student is a member of ASUCLA. See http://www.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 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 various graduate student journals, programs, and social events, including the Melnitz Movies film program. See http://gsa.asucla.ucla.edu. ☎ 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 is a member of USA.

The breadth of USA activities offers an invaluable service to the campus and surrounding communities and provides students the opportunity to participate in and 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. See http://students.asucla.ucla.edu.

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, Whoopie 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 affordable priced concerts. See http://students.asucla.ucla.edu/CEC/.☎310-825-1958

The Cultural Affairs Commission sponsors art exhibits in the Kerckhoff Hall Art Gallery and the Jazz/Reggae Festival.☎310-825-6564

Publications and Broadcast Media

Publications and media provide a training ground for aspiring writers, journalists, photographers, and radio and television announcers while serving the communication needs of the campus community. Most publications offices are in Kerckhoff Hall. See http://studentmedia.ucla.edu.

Daily Bruin

The Daily Bruin, with a circulation of 15,000, 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 advertising sales representatives; new staff members are welcome. See http://www.dailybruin.ucla.edu.☎310-825-9898

Newsmagazines

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Talib, Fem, Ha’Am, La Gente de Aztlan, Nommo, OutWrite, and Pacific Ties deal respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African; 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 several media websites, including the Synergy music review site and the Bruinwalk community portal.

UCLA Radio

UCLA Radio broadcasts live over the Internet from http://www.ucl_radio.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; all positions, including on-air, news staff, and advertising representatives, are open to students.☎310-825-6955

UCLAtv

UCLAtv, the student-run television station, broadcasts over the campus cable network (channel 29)—available in the residence halls and select campus buildings—and the Internet from http://www.uclatv.com. It gives students an opportunity to practice television-related skills and to provide information, entertainment, and a forum for the free expression and exchange of ideas to the UCLA community.

UCLA Yearbook

The UCLA yearbook, Bruinlife, is one of the largest student publication efforts on campus. Available each summer, it contains photographs and information on undergraduate students, graduating seniors, athletic teams, fraternities and sororities, and campus activities. A separate publication, the Freshman Record, is produced for new UCLA students each fall. Students who would like to participate may contact the yearbook staff.☎310-825-2640

UCLA Restaurants

ASUCLA operates more than a dozen restaurants and three 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://www.asucla.ucla.edu/restaurants/hours.asp.

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://www.uclaestore.com/uclagm/.

The UCLA Store—Ackerman Union 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, greeting cards, and cut flowers. The store also houses the Athletics sporting goods department.☎310-825-7711
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, two residential suites, and four village-type complexes accommodate over 9,200 undergraduates. Three more residential houses accommodate 125 transfer and upper division 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.

Off-Campus Housing

On the lighter side, ASUCLA operates the Xcape game room with pool tables and pinball, video, and electronic games. ☎ 310-206-0829

New freshman and transfer students who are admitted for Fall Quarter and apply by the deadline are guaranteed housing.
ABOUT UCLA

http://www.housing.ucla.edu/housing_site/apartments/index.htm. ☎ 310-398-4692

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.htm. ☎ 310-825-6322

The Community Housing 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. ☎ 310-825-4491

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.

BRUINCARD

The UCLA BruinCard is a mandatory student identification card that is used to electronically confirm student 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; I.D. card for faculty, staff, and students; residence hall access and meal card; library card; recreation card; debit card (if activated) for purchases at campus stores as well as restaurants on and off campus; time-management card for departments using the Kronos system; and access to the Santa Monica Big Blue Bus and Culver CityBus systems.

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 URSA at http://www.ursa.ucla.edu.

BruinCard centers are in 123 Kerckhoff Hall, 107 UCLA Wilshire Center, and 150A Sproul Hall. See http://www.bruincard.ucla.edu to check account balance, make deposits, view recent transactions, and report lost or stolen cards. ☎ 310-825-2336

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. ☎ 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.

CENTER FOR WOMEN AND MEN

The Center for Women and Men in the Student Activities Center offers services to all UCLA students, with special focus on gender-related issues and concerns and reentry/nontraditional student services.

The center presents workshops and support groups on topics such as assertiveness training, child care, career and leadership development, healthy relationships, mentorship for women in the sciences, men's issues, returning to school, single parenting, sexual violence prevention and education, and health and wellness. It also offers referrals for medical, legal, career planning, personal counseling, and other services both on and off campus. In addition, rape services consultants (RSCs)—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. See http://www.thecenter.ucla.edu. ☎ 310-825-3945

The center is also a designated Sexual Harassment Information Center and campus Harassment Information Center available to all UCLA students.
**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://www.tickets.ucla.edu. ☎ 310-825-2101

**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.

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: University Policies in the Appendix for more information. See http://www.deanofstudents.ucla.edu. ☎ 310-825-3871

**Early Care and Education**

UCLA Early Care and Education 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.childcare.ucla.edu. ☎ 310-825-5086

The Early Care and Education Information and Resources Program helps parents make off-campus child care arrangements and coordinates a Choosing Child Care Forum each month. ☎ 310-825-8474

The University Parents Nursery School is a multicultural cooperative school for two- to five-year-old children of UCLA students, faculty, and staff. See http://www.bol.ucla.edu/~upns/. ☎ 310-397-2735

The 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://www.childcare.ucla.edu/UVK_Program.asp. ☎ 310-915-5827

**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.

**Office of International Students and Scholars**

The Office of International Students and Scholars (OISS) assists students with questions about immigration, employment, government regulations, financial aid, academic and administrative procedures, cultural adjustment, and personal matters. OISS is a designated Sexual Harassment Information Center for international students and a Harassment Information Center available to all UCLA students. In addition, OISS provides visa assistance for faculty, researchers, and postdoctoral scholars. See http://www.intl.ucla.edu. ☎ 310-825-1681

**Dashew International Student Center**

The Dashew International Student Center seeks to improve student and community relationships and helps international students with language, housing, and personal concerns. It also sponsors cultural, educational, and social programs. See http://www.internationalcenter.ucla.edu. ☎ 310-267-1981

**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, and training seminars and maintains a library of books and periodicals. 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.uclalgbt.org.

**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, readers, 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.saonet.ucla.edu/osd/. ☎ 310-825-1501, TDD 310-206-6083, fax 310-825-9656

For information on the Disabilities and Computing Program, see Computer Support under Supporting Resources 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.saonet.ucla.edu/ombuds/.

☎ 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 Assistance-Ridesharing**

The Commuter Assistance-Ridesharing (CAR) Office is the best place for information on transportation options. Many students form or join existing UCLA carpools or vanpools. More than 130 vanpools commute to UCLA from nearly 70 Southern California communities. Full- and part-time riding opportunities are available, and registered two- and three-person student carpools are given top priority to receive parking (see below).

These and other commuting options, including an extensive network of public transit, are described in the UCLA Commuter Guide available online or at the CAR office in the Strathmore Building at Strathmore Drive and Westwood Plaza. See http://www.transportation.ucla.edu. ☎ 310-794-RIDE

**Parking Permits**

Due to limited availability, parking at UCLA is offered to students who demonstrate the greatest need. Student parking permits are assigned through a point system that considers class standing, commute distance, previous attendance, employment, dependent children, and professional school obligations. Students are encouraged to apply on time and follow all application and payment guidelines in order to increase their chances of receiving a permit. Permits are not guaranteed.

When assigning parking permits to students, UCLA Parking Services gives the highest priority to carpools. Carpool permits are guaranteed to all qualified two- and three-person student carpool groups that apply on time. Student carpools park in central campus parking areas and share a discounted permit fee. Students interested in forming a carpool who need help finding other students living near them should call the CAR office. All members of a proposed student carpool must apply in person as a group. ☎ 310-794-RIDE

Most student permits are assigned for the academic year and can be paid for annually or quarterly. Renewal forms for students paying quarterly are automatically mailed before the Winter and Spring Quarter payment due dates. Students who are not offered a parking assignment during a given term or who wish to change their parking area need to reapply the following quarter.

Student Parking Request forms, along with important quarterly due dates and information on how to apply for a parking permit, are available by phone or in person at Parking Services. Parking request forms can also be downloaded at http://www.parking.ucla.edu/appmain.htm. ☎ 310-825-9871

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.saonet.ucla.edu/osd/. ☎ 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 http://www.maildoc.ucla.edu. ☎ 310-794-6371

The United States Postal Service operates two express post offices for the campus, including a branch in Ackerman Union.
ABOUT UCLA

STUDENT LEGAL SERVICES
Through Student Legal Services in Dodd Hall, currently registered and enrolled students with legal problems or questions about their legal rights can get assistance from attorneys or law students under direct supervision of attorneys. They help students resolve legal problems, including those related to landlord/tenant relations; accident and injury problems; criminal matters; domestic violence and harassment; divorces and other family law matters; automobile purchase, repair, and insurance problems; health care, credit, and financial aid issues; consumer problems; and University-related issues. Assistance is available only by appointment. See http://www.studentlegal.ucla.edu. ☎ 310-825-9894

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. UCLA has over 700 different organizations recognized by the Center for Student Programming—more than are found on almost any other university campus in the country.

CENTER FOR STUDENT PROGRAMMING
Organizations registered with the Center for Student Programming (CSP) 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. CSP also handles complaints of misconduct against officially recognized student organizations. See http://www.studentactivities.ucla.edu. ☎ 310-825-7041

Two major CSP divisions are the Community Programs Office and Fraternity and Sorority Relations.

Community Programs Office
The UCLA Community Programs Office (CPO) was established in 1970 by concerned students, staff, and faculty who felt that the pedagogical role of students should not only consist of classroom instruction but should be relevant to social issues as well. Currently, the CPO houses 25 student-initiated community and student support projects that encompass educational, legal, social, medical, and academic services to underserved communities in the Los Angeles area. CPO is unique in its multicultural and ethnically diverse environment and the experience it offers in campus and community programming. See http://www.communityprograms.ucla.edu. ☎ 310-825-5696

Fraternity and Sorority Relations
Fraternities and sororities have been at UCLA since the 1920s. Today UCLA counts over 60 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, which participate in programs such as the Greek Leadership Conference, Membership Recruitment, Greek Week, New Member Forums, Dating Expectations Programs, intramural tournaments, and University-sponsored programs. See http://www.greeklife.ucla.edu.

FSR is a designated campus Harassment Information Center available to all UCLA students (see Harassment in the Appendix for information).

PERFORMING ARTS
Concerts, dance recitals, and theater productions are all part of exceptional programs offered by the Music, Ethnomusicology, Theater, Film, Television, and Digital Media, and World Arts and Cultures departments and by UCLA Live.

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

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

The Theater Department presents a series of major productions to the general public, and the Film, Television, and Digital Media Department features student-directed films and television programs throughout the year. The School of Theater, Film, and Television’s annual 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 World Arts and Cultures Department presents events and concerts involving departmental faculty, 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.wac.ucla.edu.

**UCLA Live**

Since 1937, UCLA Live 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. UCLA Live presents more than 200 public concerts and events each year, often sponsoring debut performances of new works by major artists. Through UCLA Live, the campus hosts a varied and active performance program, ranging from regular concerts by the Los Angeles Chamber Orchestra to events with Ladysmith Black Mambazo, Yo-Yo Ma, Alvin Alley American Dance Theater, Jessye Norman, Mikhail Baryshnikov, Pina Bausch Tanztheater Wuppertal, Twyla Tharp, Stomp, Pinchas Zukerman, and Branford and Wynton Marsalis. Subject to availability, discount tickets are offered to students, faculty, and staff. See http://www.ucla-live.org. ☎ 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 now ranks first in the U.S. in the number of National Collegiate Athletic Association (NCAA) championships won (97). In 2003-04 the UCLA athletic programs (men and women) placed third in the Directors Cup national all-around excellence survey.

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.collegesports.com.

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

**Athletic Facilities**

The major indoor arena at UCLA is the famed Pauley Pavilion, which seats 12,800 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 ’91. 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 1,050, is the home of the championship women’s softball team. The Morgan Intercollegiate Athletics Center houses the UCLA Athletic Hall of Fame. 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-10 Conference, which includes Arizona State University; University of Arizona; University of California, Berkeley; Stanford University; University of Southern California; University of Oregon; Oregon State University; Washington State University; and the University of Washington. UCLA teams have won an overall total of 69 NCAA men’s championships—second highest in the nation—including 18 in volleyball, 16 in tennis, 11 in basketball, eight each in track and field and water polo, four in soccer, two in gymnastics, and one each in golf and swimming. Students can participate on the varsity level in football, basketball, track, baseball, tennis, volleyball, water polo, golf, soccer, and cross-country. ☎ 310-825-8699

**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 28 NCAA titles—fifth highest in the nation—including 10 in softball, five each in gymnastics and track and field, three each in volleyball and water polo, and two in golf. Other nationally ranked teams are those in basketball, swimming, tennis, cross-country, and soccer. ☎ 310-825-8699

**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. ☎ 310-825-3701

**Intramural and Club Sports**

The UCLA Intramural Sports Program consists of team, dual, and individual sports competition in tournament or league play. Over 2,200 teams and 16,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and recreation member-
ship holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

The Club Sports Program 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 ice hockey, men's and women's rugby and lacrosse, men's gymnastics, cycling, sailing, snowboarding and skiing, surfing, and water skiing.

OUTDOOR ADVENTURES
Outdoor Adventures offer students the chance to get away and enjoy the wonders of local and distant mountains and waterways. Activities designed for beginning to experienced outdoors people include camping, rock climbing, scuba diving, windsurfing, canoeing, kayaking, and hiking. ☎ 310-206-1252

CLASS PROGRAMS
Noncredit recreation classes in aquatics, dance, fine arts, martial arts, outdoor studies, tennis, and sports skills are offered for beginning and intermediate levels. Private lessons in tennis, fitness activities, swimming, racquetball, and golf are also available. Students can also participate in cultural events through art exhibitions, the poetry reading program, museum tours, and theater in Los Angeles outings.

Fitness is offered either as a recreation class or on a drop-in basis. A Fitness Pass must be purchased to participate in drop-in fitness classes.

FACILITIES
For registered students who prefer independent recreation and exercise, CRA offers access to many facilities. The Wooden Recreation and Sports Center has multiple gymnasiums, 10 racquetball/handball courts, two 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, 8 lighted tennis courts, and various meeting rooms and lounges, as well as a challenge course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, rowing, 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
Youth and Family Programs offer exciting activities for children 3 to 17 years old. Summer programs include Camp Adventure for ages 11 to 16, Camp Bruin Kids for ages 10 to 15, Camp Bruin Tots for age 5, Bruins on Broadway for ages 10 to 15, Camp Explore for ages 7 to 11, Camp Extreme for ages 14 to 16, Sunset Sleepover for ages 7 to 12, Camp Voyager for ages 11 to 13, Counselors in Training for ages 15 to 17, group and private lessons, and special events. Activities combine play with skill development and deepen the fun in learning.

UCLA ALUMNI ASSOCIATION
Celebrating more than 71 years of serving the UCLA community, the UCLA Alumni Association has nearly 88,000 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 Homecoming, Spring Sing, class reunions, 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://www .UCLAAlumni.net. ☎ 310-825-ALUM or, outside Los Angeles County, 800-825-ALUM.

OUTSTANDING SENIOR AWARD
The Outstanding Senior Award recognizes graduating seniors who demonstrate scholastic excellence, creativity in the department, and outstanding service to the University and community. Nominations close in mid-January. Awards are presented at the annual UCLA Awards Ceremony in May. Award recipients receive senior class rings, life memberships in the UCLA Alumni Association, and the Chancellor’s Service Award. ☎ 310-206-6062

OUTSTANDING GRADUATE STUDENT AWARD
The Outstanding Graduate Student Award recognizes graduate students for their academic excellence, research contributions, and service to the University and community. Candidates must be scheduled to receive their degrees sometime within the current academic year. Nominations close in mid-January. Awards are presented at the annual UCLA Awards Ceremony in May. All recipients of the Outstanding Graduate Student Award receive a $500 honorarium, life membership in the UCLA Alumni Association, and the Chancellor’s Service Award. ☎ 310-206-6062
The Office of Undergraduate Admissions and Relations with Schools (UARS) invites prospective students to visit UCLA for individual or group tours of the campus. Reservations are required. See http://www.admissions.ucla.edu/tours.htm.

UNDERGRADUATE ADMISSION
Undergraduate Admissions and Relations with Schools
1147 Murphy Hall
(310) 825-3101
http://www.admissions.ucla.edu

Prospective UCLA undergraduates 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. High school honors level and advanced placement courses are good preparation regardless of the desired 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 Undergraduate Admission and Scholarships. Applicants may apply online for the Fall Quarter at http://www.universityofcalifornia.edu/admissions/. Applicants may also download and print an application from the same website.

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, the School of Arts and Architecture, the School of Theater, Film, and Television, the School of Nursing, and the Henry Samueli School of Engineering and Applied Science are open for Fall Quarter. The application filing period is November 1-30 of the prior year.

NOTIFICATION OF ADMISSION
The UC Undergraduate Application Processing Service mails out notices to acknowledge receipt of applications. Subsequently, UCLA UARS notifies students of the admission decision. The length of time before admission notification varies. In general, Fall Quarter freshman applicants are notified beginning in mid-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 University registration 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 one eighth 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. UCLA offers admission to those students with the best overall academic preparation. For details, see http://www.admissions.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, the scholarship requirement, and the 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 course must be completed with at least a grade
of C. The requirement consists of 15 year-long courses, seven of which must be taken during the last two years in high school. These are the minimum requirements; students should exceed these requirements whenever possible.

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

   **English.** Four years of college preparatory English that include frequent and regular writing, and reading of classic and modern literature, poetry, and drama

   **Mathematics.** Three years of college preparatory mathematics that include the topics covered in elementary algebra, geometry, and advanced algebra (four years are recommended, including trigonometry and calculus). Mathematics courses taken in the seventh and eighth grades may be used to fulfill this requirement if the high school accepts them as equivalent to its own courses

   **Laboratory Science.** Two years of laboratory science (three years are recommended) which provide fundamental knowledge in at least two of these areas—biology, chemistry, and physics. Laboratory courses in Earth/space sciences are acceptable if they have requisites or provide basic knowledge in biology, chemistry, or physics

   **Language Other than English.** Two years of the same language, other than English (three to four years are recommended). Courses should emphasize speaking and understanding and include instruction in grammar, vocabulary, reading, and composition

   **Visual and Performing Arts.** One year-long approved arts course from any one of the four VPA areas (dance, drama/theater, music, and visual arts)

   **College Preparatory Electives.** One year (two semesters), in addition to those required above, to be selected from the following subject areas: history, English, advanced mathematics, laboratory science, language other than English, social science, and visual and performing arts (non-introductory level courses)

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

**Scholarship Requirement**

Eligibility for admission to the University of California is based on a combination of the grade-point average in the academic subject requirement and the ACT Assessment plus Writing Tests or the SAT Reasoning Test, and SAT Subject Test scores. For details, refer to *Introducing the University* at [http://www.universityofcalifornia.edu/admissions/](http://www.universityofcalifornia.edu/admissions/).

**Examination Requirement**

All freshman applicants must submit scores from the following tests:

1. Either the ACT Assessment plus Writing Tests score or the new SAT Reasoning Test score
2. Two SAT Subject Tests in two different subject areas: history, mathematics (level 2 only), science, or language other than English. Applicants to the Henry Samueli School of Engineering and Applied Science are strongly encouraged to take the following SAT Subject Tests: mathematics level 2 and a science test (biology E/M, chemistry, or physics) that is closely related to the applicant's intended major

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 each test.

**ADMISSION SELECTION**

Many elements are considered in the selection process, but the primary ones are (1) academic grade-point average, (2) scores on the ACT Assessment plus Writing Tests or the new SAT Reasoning Test, and the two required SAT Subject Tests, (3) quality, content, and level of coursework throughout the entire high school program, including the senior year, and (4) number of and performance in honors and advanced placement (AP) courses.

Freshman applicants who are admitted must have an official, final high school transcript (showing the date of graduation) sent to UCLA. Sixth or seventh semester transcripts are not required.

Because admission requirements and selection criteria may change, freshman applicants should access [http://www.admissions.ucla.edu/freshman/](http://www.admissions.ucla.edu/freshman/) 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 comprehensive review, 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) or UCLA general education requirements.

For details on transfer admission requirements, refer to the guidelines in the application. See http://www.admissions.ucla.edu/prospect/Adm_tr/tradms.htm.

INTERCAMPUS TRANSFERS
Undergraduate students registered in a regular session at any campus of the University (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 Undergraduate 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 UARS. All courses that meet the criteria are used in determining eligibility for admission.

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

College credit for examinations given by national testing services is generally not allowed, except for the AP Tests given by the College Board and the International Baccalaureate. See http://www.admissions.ucla.edu/Prospect/APCredit.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. To demonstrate that command, they are required to take the UCLA English as a Second Language Placement Examination (ESLPE) before 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 English as a second language 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/toefl/. Have the test results sent directly to the UCLA Office of Undergraduate Admissions and Relations with Schools.

SECOND BACHELOR’S DEGREE
By policy, second bachelor’s degrees are not generally granted, except in the School of Nursing.

REGISTRATION
Enrollment and Degree Services
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. Billing and Receivable (BAR) accounts can be viewed through URSA.

2. Enrollment in classes is completed via URSA at http://www.ursa.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/.

eBILL
BAR accounts are administered electronically (eBill) through URSA. Monthly financial activity is displayed as well as past account activity for the last five months. URSA also provides a link to the Student
Accounting website (http://www.studentaccounting.ucla.edu) where students can find important communications from the University regarding registration and University policies. Students can pay their BAR account electronically using Visa, MasterCard, or Discover Card through URSA only. Students can also print out a remittance document from the eBill webpage and mail in payments with a check or money order.

**Annual Undergraduate Fees**

Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence to Undergraduate Admissions and Relations with Schools (UARS) with the Statement of Intent to Register. Legal residents of California are not required to pay tuition. Students classified as nonresidents must pay annual tuition in addition to registration fees. For a definition of residence and nonresidence, see the Appendix.

<table>
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<tr>
<th>Annual Fees for 2005-06</th>
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<tr>
<td>Fees are subject to change without notice. See <a href="http://www.registrar.ucla.edu/fees/">http://www.registrar.ucla.edu/fees/</a> for updates.</td>
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<tr>
<td>University registration fee</td>
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<td>Educational fee</td>
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<td>Ackerman Student Union fee</td>
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<td>Undergraduate Students Association fee</td>
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<td>Wooden Recreation Center fee</td>
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<td>Seismic fee for Ackerman/Kerckhoff</td>
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<td>Student Programs, Activities, and Resources Center fee</td>
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<td>Student Health Insurance Plan</td>
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<tr>
<td><strong>Total for California residents</strong></td>
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<tr>
<td>Nonresident educational fee</td>
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<tr>
<td>Nonresident tuition</td>
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<tr>
<td><strong>Total for nonresidents</strong></td>
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</tbody>
</table>

Fees are subject to change without notice by The Regents. See http://www.registrar.ucla.edu/fees/ for updates. The registration fee covers student expenses such as counseling, facilities, registration, graduation, and health services. The fee is charged whether or not students make use of these services.

**Course Materials Fees**

The College of Letters and Science and each school are authorized to assess course materials fees. Some course materials 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 this time. All students in a course with an approved course materials 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 fourth week are required to pay the course materials fee, which is billed through the BAR statement, for the entire quarter.

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

**Miscellaneous Fees**

Miscellaneous fees include charges for late registration fee payment. Late fees also apply if students file their Study List late or do not pay off BAR 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 Plan**

All UCLA undergraduate students are automatically assessed for and enrolled in the Undergraduate Student Health Insurance Plan (USHIP) as a condition of registration at UCLA. Continued enrollment in adequate medical/health insurance must be maintained during all registered terms.

The USHIP fee is billed each term along with other UCLA fees. USHIP fulfills all of the requirements mandated for adequate medical/health insurance as defined by the University. The Ashe Student Health and Wellness Center is the primary health care 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 Out of USHIP**

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

Students must apply for a USHIP waiver online. See the Ashe Center website for details, including a definition of qualifying adequate private medical/health insurance. Follow the Online Services link from http://www.studenthealth.ucla.edu.

**Deadlines for Waiving Out of USHIP**

Third-party individuals may not waive out of USHIP for another student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. Deadlines are strictly enforced.

The schedule for waiving out of USHIP is as follows:

- **Fall Quarter**: September 1-20
- **Winter Quarter**: December 1-20
- **Spring Quarter**: March 1-20
- **Fall Semester**: August 1-20
- **Spring Semester**: December 1-20
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**

The California State Legislature requires as a condition of enrollment that students 18 years and younger take the hepatitis B vaccination series. The vaccine is given in three doses. The second dose is given one month after the first, and the third is given five months after the second. Students who have not had the vaccine should start the series before their first term begins. Because this is a state requirement, students who have not completed the immunization series by the time their third term begins will not be allowed to enroll.

Students who have already been immunized may fill out the form at https://www.studenthealth.ucla.edu/hepb/hepbreq.asp.

**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 the educational fee. The reduction is based on total units enrolled as of Friday of the third week of classes.

File a Request for Fee Reduction 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 the University registration, educational, student union, 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 tuition fee. File a Request for Fee Reduction 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 the registration and educational fees 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 choose courses and formulate a schedule tailored to their academic interests or degree objectives.

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

The online Schedule of Classes 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.

**URSA ENROLLMENT**

Students enroll in classes through University Records System Access (URSA), which is accessed online at http://www.ursa.ucla.edu. For most students, URSA OnLine is the easiest way to enroll in classes and gain real-time access to academic, financial, and personal records. The site walks students through the enrollment procedure.
Students are assigned specific times—called appointments—when they are allowed to enroll. Use URSA to determine enrollment appointments.

Also use URSA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, signing onto the wait list for a class, or changing the grading basis for a class. For more information, see the URSA and Enrollment sections of the online Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

**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 5 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 URSA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on URSA 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 via URSA. Some changes require an Enrollment Petition along with approval signatures.

See Enrollment in the online 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.

**CONCURRENT ENROLLMENT**

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

**INTERSEGMENTAL CROSS-ENROLLMENT**

At the discretion of the appropriate campus authorities on both campuses, California Senate Bill 361 allows 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 residence 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**

Undergraduates 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 Enrollment and Degree Services, 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; students in Arts and Architecture should contact the Student Services Office in 194 Kinross South; 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.

**SIMULTANEOUS UC ENROLLMENT**

Undergraduates may enroll simultaneously in courses offered by another UC campus. Eligible students must be registered (fees paid), in good standing, and enrolled in at least 12 units at UCLA. Students may simultaneously enroll in no more than one UC host-campus course not to exceed 6 units. Before attending the host campus, both campuses must give approval. Approval to enroll simultaneously on another UC campus does not guarantee credit toward specific degree or general education requirements. Application of host-campus courses to UCLA graduation requirements is determined by the College or school. Details are on the application form. Obtain applications and directions for submitting forms from the following offices: honors students, A311 Murphy Hall; student athletes, Morgan Center; AAP students, 1209 Campbell Hall; all other Letters and Science students, College Aca-
FINANCIAL SUPPORT

Financial Aid Office
A129J Murphy Hall
(310) 206-0400
http://www.fao.ucla.edu

The deadline for filing all undergraduate financial aid applications is March 2 (or the Friday before that date if March 2 falls on a weekend). Applications received after the deadline are considered late, and limited aid is usually offered.


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.

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 students who apply for need-based 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 FAFSA. Students should complete the FAFSA online at http://www.fafsa.ed.gov. The FAFSA is also available from California high schools and colleges and from the UCLA Financial Aid Office, and should be filed by March 2. Be sure to indicate that the data is to be sent to UCLA by using the UCLA Title IV code: 001315.

Prospective Students

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

Continuing Students

Continuing students may access their FAFSA renewal applications on the web at http://www.fafsa.ed.gov beginning in January and should complete them by March 2 for on-time consideration. International students can obtain their applications for aid from the Financial Aid Office beginning in January.

TYPES OF FINANCIAL AID

The four basic types of aid are scholarships, grants, loans, and work-study employment. Since most students are eligible for several of these, the Financial Aid Office usually offers a combination.

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 FAFSA. Most scholarships are merit based, while grants, loans, and work study are generally need based.

SCHOLARSHIPS

Scholarships do not have to be repaid. The Undergraduate Scholarship Program at UCLA rewards academic excellence and assists with the expenses of an undergraduate education.

Financial need is required only 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 Undergraduate Admission and Scholarships. Continuing students must apply using the Continuing Undergraduate Scholarship Application at http://www.fao.ucla.edu. The application is available at the beginning of January and is due by March 2.
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 yearly stipend to cover the amount of their need. Regents Scholars also receive special privileges.

National Merit Scholarships

UCLA sponsors a number of four-year scholarships for entering freshmen who are finalists in the National Merit Scholarship competition. Finalists who are admitted to UCLA must select UCLA as their institution of choice and must meet UCLA's scholarship criteria in order to receive a UCLA Merit Scholarship. Awards range from $500 to $2,000.

UCLA Alumni Scholarships

Alumni Scholarships are available to California high school graduates who will be UCLA freshmen in the Fall Quarter. Additional scholarships are available to community college transfer students with a 3.75 GPA. Students should have demonstrated leadership ability, be involved in extracurricular activities, and show academic excellence and promise. Alumni Scholarships are merit based and competitively awarded. Freshman award amounts range from $4,000 to $12,000 and are paid over four years; transfer awards are $2,000 each and are paid over two years. Annual renewals require a combination of 30 hours of service annually to UCLA and the Alumni Association.

The Dr. Ralph Bunche Freshman Scholarship Awards, also presented by the UCLA Alumni Association and named in honor of the Nobel Peace Prize laureate and UCLA alumnus, are given to students from historically underrepresented backgrounds to encourage students who add to the diversity of the UCLA campus community. Award amounts range from $4,000 to $12,000. Awards are paid over four years; annual renewals require a combination of 30 hours of service annually to UCLA and the Alumni Association.

In addition to the monetary awards, Alumni Scholars receive special privileges. Recipients who receive work study or loans as part of a financial aid package receive additional alumni grant monies the first year. Alumni Scholars are eligible to receive additional grant monies in their second, third, and fourth years up to $5,000.

Applicants need not be related to UCLA alumni to apply. The UCLA Alumni Association administers these programs. For more information and applications, see http://www.UCLAAlumni.net/students/scholarship/.

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 between $250 and $400 per month during the academic year. Applications for four-year scholarships may be obtained by calling—Army, 310-825-7381; Air Force, 310-825-1742; Navy/Marine Corps, 310-825-9075—or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Station, NY 11746-2102. When writing, specify if the scholarship is desired for Army, Air Force, or Navy/Marine Corps. Applications for Army scholarships can also be obtained by calling 800-872-7682 or by e-mail to atccps@usacc.army.mil. Completed applications should be submitted prior to August 15 (Air Force and Navy/Marine Corps) or by November 15 (Army) for early consideration, but no later than December 1 (all services) of the year preceding college matriculation. Two- 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 citizens or eligible noncitizens and who have not earned a Bachelor’s degree. Amounts for 2005-06 range from $400 to $4,050. 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.

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 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 fee costs. Renewal award recipients receive registration fee assistance. New awards are limited to students who have completed no more than one full-time semester or two full-time quarters or 16 semester units of part-time study or the equivalent.
State University Grants
State grants provide eligible on-time applicants with financial assistance from state funds. Awards range from $100 to $9,000 and are based on student need. All undergraduate students who are citizens or eligible noncitizens are considered.

Federal Supplemental Educational Opportunity Grants
Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduates with financial need. Awards range from $100 to $4,000. Recipients must be U.S. citizens or eligible noncitizens. Preference is given to Pell Grant and Cal Grant recipients. Only on-time, grant-eligible 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 attend a debt management session before funds are released.

All loan recipients must come to the Student Loan Services Office (A227 Murphy Hall) for a loan exit interview 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. Call for an interview before graduating, transferring, or withdrawing from UCLA. ☎ 310-825-9864

Federal Perkins Loans
Low-interest Federal Perkins loans are awarded to eligible, on-time applicants who are U.S. citizens or eligible noncitizens. The loan limit per academic year is $4,000 for undergraduate students and $6,000 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 begins six or nine months after graduation or dropping below half-time enrollment.

Federal Stafford Loans
Federal Stafford Loans are low-interest subsidized and unsubsidized loans financed by participating banks and other lending institutions. Loans are available to undergraduate, graduate, and professional students who are U.S. citizens and eligible noncitizens. The variable interest rate is adjusted annually. Loan repayment begins six months after graduation or dropping below half-time enrollment.

Subsidized Federal Stafford Loans are awarded to students who have demonstrated need. Interest is paid by the federal government until six months after the student leaves school or drops below half-time enrollment.

Unsubsidized Federal Stafford Loans are available to all students 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.

Federal Parent Loans for Undergraduate Students
Federal Parent Loans for Undergraduate Students (PLUS) are designed to help parents meet the total cost of education. Parents may be eligible to borrow up to the cost of a student’s education for the academic year less any other financial aid received. This loan is available only to parents who do not have adverse credit histories. The interest rate is variable and adjusted annually. Parents 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 Federal Family Education Loan Program and require additional funding. These loans are sponsored by banks and private lending institutions. Interest rates and repayment schedules vary. These loans must be certified by the Financial Aid Office before funds can be disbursed.

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<th>Annual Limits</th>
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<tr>
<td><strong>Subsidized Stafford Loans</strong></td>
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<td>Freshmen</td>
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<td>Sophomores</td>
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<td>Juniors/Seniors</td>
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<tr>
<td>Graduates (beyond bachelor’s degree)</td>
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<tr>
<td><strong>Unsubsidized Stafford Loans</strong></td>
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<td>(includes any subsidized funds awarded)</td>
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<tr>
<td>Freshmen</td>
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<tr>
<td>Graduates (beyond bachelor’s degree)</td>
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<tr>
<td><strong>Additional Unsubsidized Funding</strong></td>
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<td>(for independent students and students whose parents are denied PLUS loans)</td>
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WORK-STUDY PROGRAM
The Federal Work-Study Program (FWS) is intended to stimulate and promote part-time student employment, particularly for those from low-income families who are in need of earnings to pursue their studies.
Under FWS, the federal government pays a portion of the student’s wage and the employer pays the balance. Through this program, students may work 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.

Emergency Educational Loans
Students need not be receiving financial aid to apply for emergency loans. 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 Student Loan Services Office, A227 Murphy Hall.

MAJORS AND DEGREES
Students may choose from over 124 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 for Change of 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 Tests in English OR
2. Scoring 680 or better on the SAT II Subject Test in Writing OR
3. Presenting transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution OR
4. 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)

If students do not meet the requirement in one of the ways described above, Academic Senate regulations require them to enroll in either English Composition A or 2 (determined by performance on the Analytical Writing Placement Examination) or 2I (determined by performance on both the Analytical Writing Placement Examination and English as a Second Language 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.

ENGLISH AS A SECOND LANGUAGE

The English as a Second Language Placement Examination (ESLPE) is required of all entering UCLA students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement. 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 ESLPE. Undergraduate students may take the ESLPE once only. Unauthorized retakes of the examination result in an invalid examination score.

Nonnative-speaking first-year students who have taken the Analytical Writing Placement Examination are evaluated on the basis of their composition and informed if they need to take the ESLPE before the term in which they are to register. Failure to take the ESLPE results in a hold on student records. Results of the ESLPE and the Analytical Writing Placement Examination are reviewed to determine which track (Entry-Level Writing or ESL) is a more appropriate placement. Students placed in the Entry-Level Writing track may satisfy the Entry-Level Writing requirement by following the guidelines listed above. If students are placed in the ESL track, they must complete the requirement by taking the designated courses through the ESL track.

Nonnative-speaking 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 Undergraduate Admissions and Relations with Schools. This includes but is not limited to all students who received a grade below B in either of these equivalent courses. Any transfer student held by UARS to the ESL requirement must take the UCLA English as a Second Language Placement Examination (ESLPE) before 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 33A, 33B, 33C, and 35. Students must begin taking courses during their first term in residence at UCLA and must complete the courses in sequence with grades 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 fulfill major requisite requirements and 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, M183
Economics 183
English 80, 85, M104A, M104B, M104C, 115A, 170A,
174A, 174B, 174C
Geography 136
139B, 139C, 140A, 140B, 140C, 141A, 141B, 142A,
142B, 142C, 143A, 143B, 144A, 144B, M144C, 145A
through 145D, 146A through 146D, 147A through
M147D, 149A, 149B, M150A through M150E,
M151A, M151B, M151C, 152, 153, 154, M155, 156
Political Science 40, 114A, 114B, 140A, 140B, 140C,
142A, 143A, 143B, 145B, or 145C.

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.

3. Presenting a satisfactory result of the requirement, by examination, as administered at another college or university within the state

4. Scoring 500 or better on the SAT II Subject Test in American History

5. 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

COLLEGE OR SCHOOL REQUIREMENTS

The College and each school with undergraduate programs establish their own degree requirements. These generally include (1) a unit requirement, which defines the total number of units to be completed, (2) a scholarship requirement, which defines a minimum grade-point average, (3) a residence requirement, which defines the amount of study that must be undertaken in residence at the UCLA campus, and (4) course requirements, which may include general education courses, reading and composition courses, foreign language courses, and core courses for the field of study. See the College and Schools section of this catalog for details on requirements set by the College and by each of the schools.

DEPARTMENT REQUIREMENTS

Each department or interdepartmental program sets its own degree requirements in addition to those established by the College or school. Department requirements generally include (1) preparation for the major, which are lower division courses designed to prepare students for advanced study and (2) the major, which are upper division course requirements. Requirements for each department are listed in the Curricula and Courses section of this catalog.

DEGREE POLICIES

Students are responsible for degree policies and regulations as described in the Academic Policies section of this catalog.

UNDERGRADUATE RESEARCH

UNDERGRADUATE RESEARCH CENTERS

The Undergraduate Research Centers (URC) assist students in the humanities and social sciences (A334 Murphy Hall, 310-825-2935) and in the life and physical sciences (2121 Life Sciences, 310-794-4227) by supporting scholarly, critical, and creative research. The centers provide mentoring and tutorials, house the Student Research Program (SRP), and administer stipends and scholarships. They also sponsor the Student Research Program and three student-run publications—the Undergraduate Science Journal, Aleph humanities and social sciences journal, and Westwind literary journal; organize campus-wide conferences and events; and coordinate the Summer Research Institute (SRI), which promotes a broader and deeper understanding of university research and helps entry-level student researchers define their place in the larger research community. See http://www.college.ucla.edu/ugresearch/index.html.

STUDENT RESEARCH PROGRAM

Administered by each Undergraduate Research Center, the Student Research Program offers undergraduates, especially lower division and first-year transfer students, 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 50 hours of research completed during the quarter. See http://www.college.ucla.edu/up/honors/srp.html.

UNDERGRADUATE RESEARCH FELLOWS PROGRAM

The Undergraduate Research Fellows Program (URFP) is available on a competitive basis and by
UNDERGRADUATE STUDY

application for undergraduate students who have financial need and who want to participate in two terms of research through SRP. The commitment to the SRP project is for Winter and Spring Quarters, and stipends are set at $1,000 per term. Applications are accepted during Fall Quarter only, and the deadline for submission of applications is late November. See http://www.college.ucla.edu/urc-care/scholarfp.htm or http://www.college.ucla.edu/ugresearch/sch_urfp.html.

UNDERGRADUATE RESEARCH SCHOLARS PROGRAM

The Undergraduate Research Scholars Program (URSP) offers scholarships from foundations, industry, and individual donors to continuing students (junior-level standing and higher). Applicants must have a strong commitment to research and must complete an honors thesis or a comprehensive independent studies project during the senior year. Applications are accepted during Spring Quarter only. See http://www.college.ucla.edu/urc-care/scholarfp.htm or http://www.college.ucla.edu/ugresearch/sch_urfp.html.

ACADEMIC RESEARCH COURSES

All academic departments offer undergraduate research courses that allow students to obtain academic credit for their research experiences. Students enrolled in the courses are often upper division students with Student Research Program experience. Department requirements for credit vary, but all departments require a research proposal to enroll in upper division tutorial courses and a research report to receive credit when the research project is completed.

Senior students working toward honors or highest honors in many majors must complete a two-term (or more) research project that culminates in an honors thesis. Arrangements must be made with a faculty mentor before students can register for the course. See the undergraduate adviser in the department of interest for more information.

CENTER FOR ACADEMIC AND RESEARCH EXCELLENCE

The Center for Academic and Research Excellence (CARE) provides enrichment opportunities for students majoring in the sciences, engineering, and mathematics who seek careers in scientific research and teaching and whose success through graduate training will increase the numbers of historically underrepresented individuals in academic and technological fields. CARE offers a variety of research opportunities during the academic year and summer that provides students the financial support to dedicate themselves to research. CARE programs, many sponsored by grants through federal agencies such as the National Institutes of Health (NIH) and the National Science Foundation (NSF), are for UCLA students as well as students from other universities. Offices are in 2103 Life Sciences. See http://www.care.ucla.edu.

INTERNSHIP, STUDY ABROAD, 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.

EDUCATION ABROAD PROGRAM

Each year more than 1,700 undergraduate and graduate students from UC campuses study at distinguished universities throughout the world through the Education Abroad Program (EAP). UCLA students remain registered here while overseas and receive UC units and grade points for work completed abroad.

Currently, EAP offers study opportunities at more than 150 different universities in 33 countries: Australia, Barbados, Brazil, Canada, Chile, China, Costa Rica, Denmark, Egypt, France, Germany, Ghana, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Philippines, Singapore, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, and United Kingdom.

Participants can spend up to a full academic year abroad, enjoying a unique opportunity to enhance language skills, take courses in their major, and become involved in the culture of the host country. One-term programs are available in Australia, Barbados, Brazil, Canada, Chile, China, Costa Rica, Denmark, Egypt, France, Germany, Ghana, Hong Kong, Hungary, India, Israel, Italy, Japan, Korea, Mexico, Netherlands, Philippines, Russia, Singapore, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, United Kingdom, and Vietnam.

Summer programs are offered in China, Denmark, Israel, Italy, Korea, Mexico, Philippines, Sweden, and United Kingdom. In Costa Rica there is a one-term tropical biology field study program, and field study programs are available in several countries.
For all programs a special orientation program and, when necessary, intensive language training are included. During the year UC faculty members at the host university assist with scholastic or personal problems.

EAP is open to all undergraduate students who have (1) at least a B average (3.0 GPA) overall at the time of application and (2) the support of the UCLA EAP Selection Committee. Some programs have a language requirement as well. Most programs require junior standing (90 units minimum) at departure, although sophomores may participate in many of the newer programs. Seniors and transfer students are also welcome.

Graduate students who have completed at least one year of graduate work and have the approval of their graduate adviser and the dean of the Graduate Division may participate at most study centers.

Costs for participation in EAP vary, but University financial aid and special EAP scholarships are available to those who qualify. Applications must be filed several months in advance. See http://www.international.ucla.edu/eap/.

**INTERNSHIP AND STUDY ABROAD SERVICES**

Internship and Study Abroad Services, an office of the UCLA Career Center, offer access to a variety of off-campus learning experiences. The office is in 200 Strathmore Building. See http://career.ucla.edu/InternshipStudyAbroad/. ☎ 310-825-0831

**NATIONAL INTERNSHIP PROGRAM**

The Washington, DC program allows students to do fall, winter, spring, and summer 10-week internships. Internships are available with elected officials, government agencies, public interest groups, international organizations, the media, and a wide range of public and private enterprises. In Sacramento, interns are available only in the summer. Stipends, loans, and scholarships are available to students through the program.

**LOS ANGELES INTERNSHIP PROGRAM**

Local internships are available throughout the year in fields such as advertising, business, film, media, and politics.

**INTERNATIONAL OPPORTUNITIES**

The Internship and Study Abroad office advises students on study, travel, volunteer, international internship, and short-term work opportunities outside the U.S., offering information on overseas study programs open to UCLA students. The office maintains a library of current materials related to study, travel, and other opportunities abroad.

**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 UCLA courses with research and field experience. Students live in Washington for up to 12 weeks, dividing their time between courses taught by UC faculty and a part-time field internship placement. They are registered as UCLA students and earn credit for all classes taken. The core course is multiple-listed in political science, sociology, and history and meets the capstone requirement for the Public Affairs minor. At least one course in a subject other than political science, such as economics or history, is offered each quarter. All courses take advantage of Washington’s unique resources for study and research.

Center administrators help students find a field placement, which is central to a research seminar each student takes, in a Washington organization. Placements have included ABC News, the Brookings Institute, CNN, the Department of Justice, the Kennedy Center, Studio Theatre, the Center for Strategic and International Studies, various members of Congress, and the White House. For information, contact the CAPPP Office in 4250 Public Policy Building or e-mail cappp@issr.ucla.edu. See http://www.cappp.ucla.edu. ☎ 310-206-3109

**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 (GSEIS), which helps coordinate programs leading to various instructional credentials or to graduate study.

**EDUCATION STUDIES MINOR**

The Education Studies minor provides an introductory course sequence for students who might want to pursue a career in education. The program office is in 1009 Moore Hall. See [http://www.gseis.ucla.edu/edminor/](http://www.gseis.ucla.edu/edminor/).

**MATHEMATICS/EDUCATION PROGRAM**

The Mathematics/Education Program, offered jointly by GSEIS and the Department of Mathematics, leads to a teaching credential and master’s degree in education for mathematics majors considering 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 Mathematics Student Services, 6356 Math Sciences. See [http://www.math.ucla.edu/undergrad/matheduc.html](http://www.math.ucla.edu/undergrad/matheduc.html).

**SCIENCE TEACHER EDUCATION PROGRAM**

The Science Teacher Education Program, cosponsored by the College and GSEIS, allows science majors to observe and participate in classrooms in schools in the Los Angeles area and to begin teacher education courses. Students earn a master’s in education and a teaching credential in one academic year beyond the baccalaureate. For details, e-mail Dr. Arlene Russell at russell@chem.ucla.edu or contact any science department undergraduate counseling office. See [http://www.nslc.ucla.edu/step/](http://www.nslc.ucla.edu/step/).

**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. For details, see UCLA Center X at [http://www.centerx.gseis.ucla.edu/TEP/](http://www.centerx.gseis.ucla.edu/TEP/).

**UCLA CENTER FOR COMMUNITY LEARNING**

The UCLA Center for Community Learning (CCL) serves faculty members, undergraduate students, and community partners through academic programs, including credit-bearing internships, service learning courses, community-based research, and service scholarships. It is home to the Greater Los Angeles Regional Center for Student Civic Engagement, supported by the California Campus Compact. The center works closely with the Center for Community Partnerships and the UCLA in LA Initiative.

The center provides opportunities for junior/senior students to link hands-on experience with classroom education. Many courses and programs are offered that require fieldwork in the form of internships or community service projects. The office is in A333 Murphy Hall. See [http://www.college.ucla.edu/up/ccl/](http://www.college.ucla.edu/up/ccl/). ☎ 310-825-7867

**UNIVERSITY OF CALIFORNIA CENTER SACRAMENTO**

The University of California Center Sacramento (UCCS) is an academic state government program sponsored by the UC Office of the President. The center’s long-term goal is to bring together UC faculty with undergraduate and graduate students to pursue research related to state government, politics, and public policy.

The quarterly experiential learning program offers students an opportunity to intern, take seminar courses from UC faculty, and conduct in-depth policy research. Along with internship placement and academic courses, the center offers a speaker series featuring prominent guests from state government. The residential program is open to juniors and seniors who have completed a significant part of their upper division and major courses. UCCS is open to students in all fields of study. Contact the UCLA Center for Community Learning, A333 Murphy Hall; see [http://uccs.universityofcalifornia.edu](http://uccs.universityofcalifornia.edu). ☎ 310-825-2295

**LOWER DIVISION SEMINAR PROGRAMS**

**COLLEGIUM OF UNIVERSITY TEACHING FELLOWS**

The Collegium of University Teaching Fellows (CUTF) permits the finest UCLA advanced graduate students 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 in 60 Powell Library. See http://www.oid.ucla.edu/students/cutf/.

☎ 310-206-8998

HONORS COLLEGIUM
The Honors Collegium 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.college.ucla.edu/up/honors/honorscollegium.html.

FIAT LUX SEMINARS FOR FRESHMAN STUDENTS
In 2002-03, UCLA established a program of innovative freshman seminars. The one-unit seminars, taught by faculty in areas of their expertise, span the rich array of disciplines studied at UCLA. The seminars inform freshman students about topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers and faculty. Since the seminars illuminate the many paths of discovery explored by UCLA faculty, the program takes its name from the motto of the University of California: Fiat Lux – Let There be Light! See the Schedule of Classes for details about scheduling each term at http://www.registrar.ucla.edu/schedule/. For more information, see http://www.college.ucla.edu/fiatlux/.

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

ORIENTATION PROGRAM
The Orientation Program introduces students to UCLA campus life through special programs, academic counseling, and educational planning. 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. During the summer, Orientation offers 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. For more information, contact the Orientation Program office in 201 Covel Commons. See http://www.orientation.ucla.edu. ☎ 310-206-6685

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 listing of counselors and advisers.

ASK PEER COUNSELORS
The ASK Peer Counseling Program is an extension of College Academic Counseling. ASK peer counselors are College of Letters and Science undergraduates trained to provide counseling and respond to student questions and concerns in convenient walk-up settings. No appointments are required. Counselors provide petitions, give directions, make referrals, and bridge the gap between campus life and the College office in Murphy Hall.

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

COUNSELING ASSISTANTS
Letters and Science counseling assistants (CAs) are graduate students who help lower division students with course selection, major requirements, and graduate school information. Many CAs serve as teaching assistants and can give unique perspectives on courses and faculty. See http://www.college.ucla.edu/up/counseling/counselors/cas.htm.

For appointments, go to Window 1, A316 Murphy Hall. CAs are also available in selected departments and online through http://my.ucla.edu.
ACADEMICS IN THE COMMONS

Academics in the Commons, home to Covel Tutorials, offers registered UCLA students academic success and preprofessional career planning workshops plus free individual and small-group tutoring aimed at developing academic skills and critical thinking. Programs are staffed by carefully selected and trained peer tutors and workshop leaders, and conveniently located in Covel Commons in Sunset Village. For details on all the tutorials below, see http://www.college.ucla.edu/up/aitc/covel.html.

ACADEMIC WORKSHOPS

Academics in the Commons offers the Academic Workshop Program, which promotes academic success through a variety of workshops. For specific topics, dates, and times, see http://www.college.ucla.edu/up/aitc/workshops.html.

COMPOSITION AND ESL TUTORIALS

The Composition Tutoring Laboratory and UCLA Writing Programs offer individual assistance to students enrolled in English Composition A, 2, 3, and English 4W and to students writing papers for other UCLA courses. The laboratory is staffed by trained undergraduate peer tutors with outstanding ability in advanced composition who can help students at any stage of the writing process.

The ESL Tutoring Laboratory assists nonnative-speaking students with English grammar, idioms, pronunciation, listening comprehension, and composition. Priority is given to students enrolled in English as a Second Language 33A, 33B, and 33C, and other ESL courses. Most of the ESL tutors are graduate students pursuing degrees in teaching English as a second language.

Both the Composition and ESL Laboratories are in 228 Covel Commons. ☎ 310-206-1491

MATHEMATICS AND SCIENCES TUTORIALS

Mathematics and Sciences Tutorials provide an organized by-appointment tutorial program for most introductory courses in chemistry, life sciences, mathematics, and physics. Trained tutors meet in small group sessions on a weekly basis, teaching methods to improve problem-solving skills and test-taking strategies. Requests for tutors must be made during the first week of the term; early registration is strongly advised. Drop-in tutoring is also offered. Schedules vary each term. The tutorials are in 228 Covel Commons. ☎ 310-206-6965

TUTORIALS FOR STUDENT ATHLETES

Tutorials for Student Athletes provide tutoring in the evening and on weekends for intercollegiate athletes whose practice and competition schedules prevent them from participating in other tutorial services. Eligible student athletes can receive regular individual or small group assistance in a wide range of courses, provided they request tutoring within the first four weeks of the term. Trained tutors clarify course content, teach study strategies and, in consultation with course instructors, develop problem-solving exercises and practice examinations to build learning and performance skills. The coordinator is in 209 Covel Commons. ☎ 310-206-6837

ACADEMIC ADVANCEMENT PROGRAM

The Academic Advancement Program (AAP), a multiracial program, has a threefold mission: (1) to ensure the academic success, retention, and graduation of its more than 6,500 students, (2) to increase the numbers of its students entering graduate and professional schools, and (3) to develop the academic, political, scientific, economic, and community leadership necessary to transform society in the twenty-first century. Programs are oriented toward furthering long-term academic and personal growth.

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 the AAP Office in 1232 Campbell Hall. See http://www.college.ucla.edu/up/aap/. ☎ 310-825-1481

ACADEMIC COUNSELING

Counselors at AAP encourage students to explore their talents, believe in themselves, and aspire to academic and personal excellence. Counselors, including two science 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. ☎ 310-825-1481

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. ☎ 310-825-1481

TUTORIAL SERVICES

AAP tutorial services promote academic excellence in over 400 courses. Most tutors 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 tutoring is done in small groups that foster discussion and allow students to listen to and articulate new and different perspectives.

**Program Leading to Undergraduate Success**

The Program Leading to Undergraduate Success (PLUS) is a federally funded component of AAP that provides intensive counseling, tutoring, workshops, and social and cultural programs for first-generation college, low-income freshmen. Applications are available at 1201A Campbell Hall. See http://www.college.ucla.edu/trio/plus/. ☎ 310-206-1805

**Graduate Mentoring Programs**

AAP offers four different programs aimed at helping students achieve academic and professional goals.

**Graduate Mentor Program**

The AAP Graduate Mentor Program (GMP) is grounded in the belief that it is never too early, or too late, to prepare for graduate school. The primary goal of GMP is to increase the number of AAP students who enroll in graduate or professional schools.

**Community Development and Social Justice Program**

The Community Development and Social Justice Program assists undergraduate students interested in graduate and professional schools. The program works with the schools of Public Affairs, Public Health, Law, and Medicine to increase their 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://www.college.ucla.edu/up/aap/rosparks/index.html. ☎ 310-206-1805

**McNair Undergraduate Research Program**

The McNair Undergraduate Research Program prepares undergraduate students for the best graduate programs in the country and to excel in graduate school on the way to earning a Ph.D. in the humanities or social sciences. The program selects 22 students annually from those populations most severely underrepresented in graduate programs and the professoriate in 11 targeted departments in the humanities, social sciences, and behavioral sciences. See http://www.college.ucla.edu/trio/mcnair/. ☎ 310-206-1805 or 310-794-4186

**Teachers for Tomorrow**

Teachers for Tomorrow (TFT) aims to advance a new generation of socially conscious leaders interested in careers in education. It provides AAP students with opportunities to meet faculty and students in the Graduate School of Education and Information Studies and to get involved in community service programs, internships, and service learning courses. The Joseph Drown Scholarship Program works with AAP students who want to become teachers of mathematics, science, social sciences, or humanities. Students in the program work with teachers at local public schools as volunteers, receive a stipend of up to $3,000, and participate in educational roundtables. See http://www.college.ucla.edu/up/aap/teachers/index.html. ☎ 310-794-4186

**Summer Programs**

Two six-week AAP academic summer programs—the Freshman Summer Program and the Transfer Summer Program—prepare students to succeed by exposing them to the rigor and demands of academic life and to undergraduate programs, services, and learning resources.

Students enroll in two University courses that meet UCLA requirements for graduation and receive personal attention, in either small groups or individual sessions, from teaching assistants and tutors. They are encouraged to live on campus and to participate in cultural and social events, interact with students of diverse backgrounds, build a network of friends, and broaden their life experiences and world outlook. ☎ 310-206-1571

**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, and School of Theater, Film, and Television award Dean’s Honors to deserving students each term, and the deans of the four divisions in the College of Letters and Science award Dean’s Honors. 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 Califor-
nia 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 departmental honors program. Students should consult their department for its requirements.

DEPARTMENTAL SCHOLAR PROGRAM
Departments in the College and each school, except the School of Nursing, 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
Membership in the national freshman honor societies 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 year, or a cumulative 3.5 GPA at the end of the second and/or third terms. Invitations are issued in Winter Quarter, and initiation is held during Spring Quarter. For more information, contact the Office of the Dean of Students, 1206 Murphy Hall. See http://www.studentgroups.ucla.edu/aldpes/.

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 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, provides economic assistance to outstanding members by means of an annual scholarship for initiates and graduating seniors, and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued in Winter Quarter, and a reception is held in Spring Quarter. For further information, contact the Office of the Dean of Students, 1206 Murphy Hall. See http://www.studentgroups.ucla.edu/Goldenkey/.

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 from the Center for Student Programming (105 Kerckhoff Hall) early in Winter Quarter and are due by mid-February. Approximately 40 members are selected each spring by the outgoing chapter. See http://www.studentgroups.ucla.edu/mboard/.

Phi Beta Kappa
Phi Beta Kappa is a national honorary 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. 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. See http://www.college.ucla.edu/up/honors/pbk.html.
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**

Graduate Admissions/Student and Academic Affairs
1255 Murphy Hall
(310) 825-1711
http://www.gdnet.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://www.gdnet.ucla.edu/gasaa/deptinfo/deptinfointro.asp.

**APPLYING FOR ADMISSION**

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

**WHEN TO APPLY**

Most departments and schools have deadlines in November and December for the following Fall Quarter. Consult the Application for Graduate Admission for specific deadlines for each major. Some departments also accept applications for Winter and Spring quarters.

Applications may be considered if received 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 papers and materials to be submitted, including official transcripts of record and the nonrefundable application fee, are specified at http://www.gdnet.ucla.edu. Submitted materials 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 applications and information about both paper and computer-based testing are available from offices of the Educational Testing Service, P.O. Box 6000, Princeton, NJ 08541-6000 and at http://www.gre.org/ttindex.html. For information on GRE Fee Waivers, see http://www.gre.org/services.html.

**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 chancellor of Graduate Studies.

**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 assistantships.

**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.

**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. In some cases, these letters may mean the difference between acceptance and rejection. Letters should be sent directly to the prospective department. Forms to be used are available at http://www.gdnet.ucla.edu.

**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 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 in duplicate, 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://www.gdnet.ucla.edu.

**Proficiency in English**

International students who hold a bachelor’s or higher degree from a university in a country where the official language is English and in which English is the spoken tongue and the medium of instruction 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, P.O. Box 6151, Princeton, NJ 08541-6151 (609-771-7100) or at http://www.ets.org/toefl/.

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 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 the subsequent term only (retaking the examination in the same term is not counted as a valid result). In cases where students retake the examination in their second term of study, the most recent examination score is held to be valid. Unauthorized retakes of the examination result in an invalid examination score. 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.

International students or permanent residents who are not native speakers of English, before they are allowed to serve as teaching assistants, must take and pass either the Test of Spoken English (TSE) offered at TOEFL centers in their home countries or the Test of Oral Proficiency (TOP) on arrival at UCLA. A passing score is 50 or higher on the TSE or 7.1 or higher on the TOP. A provisional pass is 45 on the TSE or between 6.4 and 7.0 on the TOP. Students with a provisional pass score are required to take an approved English as a second language oral skills course either before or during their first term of teaching assistant work.

Students who plan to serve as teaching assistants during their first term at UCLA must either take and pass the TSE before arrival or arrive on campus early enough to take the TOP examination before instruction begins. UCLA’s Office of Instructional Development (OID) conducts the TOP testing. For the examination schedule and other information, see http://www.oid.ucla.edu/top/. Students should also contact either their department or the TA Training Program. ☎ 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., 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 MOLECULAR, CELLULAR, AND INTEGRATIVE LIFE SCIENCES

The life and basic biomedical sciences departments at UCLA offer a mechanism for a combined recruitment, admission, and first-year program that provides Ph.D. students in the molecular, cellular, and integrative life sciences with maximal choice and flexibility in selecting a research specialization. Through UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences, students are able to select research projects from faculty mentors according to changing perceptions, interests, and goals without regard to traditional departmental boundaries. The first year of each degree program has a common curriculum and advising structure.

The following Ph.D. programs use UCLA ACCESS to recruit and admit students: Biochemistry and Molecular Biology, Molecular Biology, Molecular, Cell, and Developmental Biology, and Molecular, Cellular, and Integrative Physiology in the College of Letters and Science; Biological Chemistry, Cellular and Molecular Pathology, Human Genetics, Molecular and Medical Pharmacology, and Neurobiology in the David Geffen School of Medicine; Molecular Toxicology in the School of Public Health; and Microbiology, Immunology, and Molecular Genetics.

Admission

Applicants apply to UCLA ACCESS rather than to an individual department and must have completed an undergraduate major in a life or physical sciences discipline with superior scholastic achievement. Students should have preparation in physics, biology, and chemistry, as well as specialized courses within the major that may include cell biology, neurobiology, immunology, structural or computational biology, microbiology, virology, plant molecular biology, developmental biology, biochemistry, or molecular biology. In certain cases, background deficiencies may be remedied concurrently with graduate studies if recommended by the UCLA ACCESS steering committee. In addition to the UCLA Application for Graduate Admission, students should submit their scores on the Graduate Record Examination (GRE) General Test (Subject Test is optional) and three letters of recommendation from individuals who can provide direct knowledge of their academic record and potential for superior achievement in independent research. Admission is limited to Fall Quarter.

Obtain applications and information from the Program Coordinator, UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences, 172 Boyer Hall, UCLA, Box 951570, Los Angeles, CA 90095-1570. See http://www.uclaaccess.ucla.edu. ☎ 310-206-6051

First-Year Course Requirements

Individual requirements vary based on background and scientific interest and are determined by the steering committee. In general a formal course of study consists of three lecture courses, three laboratory rotations, and two elective survey courses. In addition, participation is required in related activities on an informal basis.

During their first nine months in residence, students rotate for one term each through three laboratories selected from the UCLA ACCESS faculty list. They enroll in a 500-level course for 6 units of credit for each rotation.
An additional course in ethics (Microbiology, Immunology, and Molecular Genetics C234) is required.

All departments participating in UCLA ACCESS consider teaching experience to be an integral part of the graduate program. Students are required to complete two terms of teaching beginning in their second year. They are also required to complete a course on approaches and methods for successful teaching.

**Transfer to the Degree-Granting Program**

Students are admitted to UCLA graduate standing through UCLA ACCESS on a provisional basis for up to four terms. At the end of Spring Quarter, academic progress is evaluated by the steering committee. Students who receive a satisfactory evaluation select a faculty mentor as their doctoral committee chair. With concurrence of the mentor and the degree-granting program, students then transfer from UCLA ACCESS to that program for the remainder of their Ph.D. studies.

In the event students are unable to identify a suitable mentor and program by the end of their first year, one additional laboratory rotation approved by the steering committee is available during the summer quarter. Students who are unable to arrange for a laboratory after four rotations are recommended for release from their provisional graduate standing.

**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.

**DUPLICATION 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 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, 1147 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**

Enrollment and Degree Services
1113 Murphy Hall
(310) 825-1091
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. Billing and Receivable (BAR) accounts can be viewed through URSA.
2. Enrollment in classes is completed via URSA at http://www.ursa.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.

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

eBill
BAR accounts are administered electronically (eBill) through URSA. Monthly financial activity is displayed as well as past account activity for the last five months. URSA also provides a link to the Student Accounting website (http://www.studentaccounting.ucla.edu) where students can find important communications from the University regarding registration and University policies. Students can pay their BAR account electronically using Visa, MasterCard, or Discover Card through URSA only. Students can also print out a remittance document from the eBill webpage and mail in payments with a check or money order.

Annual Graduate Fees
Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence to Graduate Admissions with the Statement of Intent to Register. Legal residents of California are not required to pay tuition. Students classified as nonresidents must pay annual tuition in addition to registration fees. For a definition of residence and nonresidence, see the Appendix.

Annual Fees for 2005-06
<table>
<thead>
<tr>
<th>Fees</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>University registration fee</td>
<td>$735.00</td>
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<tr>
<td>Educational fee</td>
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<tr>
<td>Ackerman Student Union fee</td>
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<tr>
<td>Graduate Students Association fee</td>
<td>39.00</td>
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<tr>
<td>Wooden Recreation Center fee</td>
<td>39.00</td>
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<tr>
<td>Seismic fee for Ackerman/Kerckhoff</td>
<td>113.00</td>
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<td>Student Programs, Activities, and Resources Center fee</td>
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<td>Student Health Insurance Plan</td>
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<tr>
<td>Total for California residents</td>
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<tr>
<td>Nonresident educational fee</td>
<td>6,429.00</td>
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<tr>
<td>Nonresident tuition</td>
<td>14,694.00</td>
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<tr>
<td>Total for nonresidents</td>
<td>$23,070.50</td>
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</table>

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

Students in the Schools of Dentistry, Law, Management M.B.A. program, Medicine, Nursing, Public Affairs, Public Health, and Theater, Film, and Television should refer to the online Schedule of Classes for explanation of additional fees.

Miscellaneous Fees
Miscellaneous fees include charges for late registration fee payment. Late fees also apply if students file their Study List late or do not pay off BAR 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 Plan
All UCLA graduate students are automatically assessed for and enrolled in the Graduate Student Health Insurance Plan (GSHIP) as a condition of registration at UCLA. Continued enrollment in adequate medical/health insurance must be maintained during all registered terms.

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

Waiving Out of GSHIP
Students may waive out of GSHIP if they (1) maintain active enrollment in an adequate medical/health insurance plan that meets all established requirements, (2) apply for a GSHIP waiver within established deadlines, and (3) correctly complete the online GSHIP waiver form.

Students must apply for a GSHIP waiver online. See the Ashe Center website for details, including a definition of qualifying adequate private medical/health insurance. Follow the Online Services link from http://www.studenthealth.ucla.edu.
Deadlines for Waiving Out of GSHIP

Third-party individuals may not waive out of GSHIP for another student. Waivers must be submitted by the stated deadlines whether or not fees have been paid by that date. Deadlines are strictly enforced.

The schedule for waiving out of GSHIP is as follows:

- Fall Quarter: September 1-20
- Winter Quarter: December 1-20
- Spring Quarter: March 1-20
- Fall Semester: August 1-20
- Spring Semester: December 1-20

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.

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 part or all of the 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 Tuition

The annual nonresident tuition fee for graduate doctoral students who have advanced to candidacy is reduced by 75 percent, effective the term after the student is advanced. Doctoral students may receive this reduced nonresident 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 registration 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 responsible for paying the filing fee unless registered the immediately preceding term.

Annual Budget Estimates

The table below provides an estimate of a total budget students might expect based on the regular session terms of the 2004-05 academic year, not including Summer Sessions.

<table>
<thead>
<tr>
<th></th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>University fees</td>
<td>$7,179.50</td>
<td>$7,446.50</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>930.00</td>
<td>930.00</td>
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<tr>
<td>Nonresident tuition</td>
<td></td>
<td>14,694.00</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>1,758.00</td>
<td>1,758.00</td>
</tr>
<tr>
<td>Living expenses</td>
<td>16,851.00</td>
<td>16,851.00</td>
</tr>
<tr>
<td><strong>Total Budget Estimate</strong></td>
<td><strong>$26,718.50</strong></td>
<td><strong>$41,679.50</strong></td>
</tr>
</tbody>
</table>
Nonresident tuition and certain University fees were under review at the time of publication. All fees are subject to change without notice by The Regents. See the Schedule of Classes Fee Charts for updates at http://www.registrar.ucla.edu/fees/.

ENROLLING IN CLASSES
The online Schedule of Classes 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.

URSA ENROLLMENT
Students enroll in classes through University Records System Access (URSA), which is accessed online at http://www.ursa.ucla.edu. The site walks students through the enrollment procedure.

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

Also use URSA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, signing onto the wait list for a class and checking waitlist status, or changing the grading basis for a class. For more information, see the URSA and Enrollment sections of the online Schedule of Classes at http://www.registrar.ucla.edu/schedule/.

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 5 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 URSA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on URSA 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 via URSA. Some changes require an Enrollment Petition along with approval signatures.

See Enrollment in the online Schedule of Classes for deadlines and complete instructions.

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

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

Throughout their appointments, teaching assistants (TAs) and graduate student researchers (GSRs) are required to be registered and enrolled in at least 12 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 Ashe Student Health and Wellness Center the Health Evaluation forms provided by their departments. To schedule a clearance appointment, call (310) 825-4073, option 1, or go to http://www.studenthealth.ucla.edu. For specific questions related to requirements, contact the individual department.

FINANCIAL SUPPORT

Graduate Student Support

1228 Murphy Hall
(310) 825-1025
http://www.gdnet.ucla.edu

Graduate Outreach, Diversity, and Fellowships

1252 Murphy Hall
(310) 825-3521

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 students is included in the Application for Graduate Admission. Readmitted students should also request the Application for Graduate Admission, and continuing graduate students should complete the Fellowship Application for Continuing Graduate Students. Completed fellowship applications must be returned by the published deadlines. Some departments have earlier deadlines; consult the application brochure for details.

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 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. (Teaching assistants, associates, and fellows are eligible to receive partial payment at the beginning of the term in the form of an interest-free advance loan check. Interested students should apply to their departments.) 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.

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

Financial aid awards include grants, 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 the Financial Aid Office, A129J Murphy Hall or at http://www.fao.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://www.gdnet.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 various kinds of laboratory and fieldwork. Achievement in research is primarily assessed through evaluation of the master’s thesis or doctoral dissertation. Professional master’s and doctoral degree programs require professional training. Demonstration of achievement in these fields may take various forms, including fieldwork, completion of projects, and training that involves 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 Degrees at http://www.gdnet.ucla.edu and the departmental graduate adviser for details. Policies and regulations are outlined in Standards and Procedures for Graduate Study at UCLA, which is available from Graduate Admissions/Student and Academic Affairs, 1255 Murphy Hall or at http://www.gdnet.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
GRADUATE STUDY

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 Graduate Admissions/Student and Academic Affairs, 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

After advancement to candidacy, students under Plan I must submit a thesis reporting on results of their original investigation of a problem. While the problem may be of only limited scope, the thesis must show a significant style, organization, and depth of understanding of the subject.

A thesis committee, consisting of at least three faculty members who hold regular professorial appointments at the University, is nominated by the department and appointed by the dean of the Graduate Division for each student (consult the Graduate Division for more details on committee members' eligibility requirements). The thesis committee, which must be appointed before students may be advanced to candidacy, approves the subject and plan of the thesis, provides the guidance necessary to complete it, then reads and approves the completed manuscript. Approval must be unanimous among committee members.

Once the thesis committee and other concerned faculty members have approved the subject for the thesis, work may begin. Students are responsible for preparing the thesis in the proper form and for observing filing deadlines.

Plan II: Master's Comprehensive Examination

Following advancement to candidacy, students under Plan II must pass a comprehensive examination administered by a committee consisting of at least three faculty members appointed by the department. In some departments the comprehensive examination may serve as a screening examination for admission to doctoral programs. Information concerning this examination and its format is available in the departments.

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.
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 CREDIT**

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

**UNITS OF CREDIT**

Most 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 G.P.A. 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 regular courses, 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.

**GRADES**

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

**UNDERGRADUATE GRADES**

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

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

Grades A, B, C, and D may be modified by a plus (+) or minus (–) suffix. Grades A, B, C, and P denote satisfactory progress toward the degree, but a D grade must be offset by higher grades in the same term for students to remain in good academic standing. An F grade yields no unit or course credit.

**GRADUATE GRADES**

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

- **A** Superior Achievement
- **B** Satisfactorily demonstrated potentiality for professional achievement in field of study
- **C** Passed the course but did not do work indicative of potentiality for professional achievement in field of study
- **F** Fail
- **S** Satisfactory (achievement at grade B level or better)

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:

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<tr>
<th>Grade</th>
<th>Points</th>
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<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>
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<tr>
<td>B–</td>
<td>2.7</td>
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<tr>
<td>C+</td>
<td>2.3</td>
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<tr>
<td>C</td>
<td>2.0</td>
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<tr>
<td>C–</td>
<td>1.7</td>
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<tr>
<td>D+</td>
<td>1.3</td>
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<td>D</td>
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<td>F</td>
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<td>NP</td>
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As indicated, a plus (+) or minus (–) suffix added to a grade raises or lowers the grade-point value, except in the case of A+, which carries the same number of grade points as the A grade. Courses in which students receive a 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).
ACADEMIC POLICIES

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.

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). They may not elect the P/NP option for Summer Sessions courses without an approved petition. 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 through the sixth week of instruction via URSA.

Courses that are offered only on a P/NP basis are designated PN in the Schedule of Classes.

SATISFACTORY/UNSATISFACTORY GRADES

Graduate students in good standing (minimum 3.0 GPA) may enroll for Satisfactory/Unsatisfactory (S/U) grading in one graduate or upper division course outside the major field each term, in addition to any courses offered only on an S/U grading basis within the major. The grade S is assigned for a letter grade of B or better, but units earned in this manner are not counted in computing the GPA. Students receive neither units nor degree credit for a 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 via URSA.

Courses that are offered only on a 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 reenroll 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 (identified by T1, T2, T3, or T4 in the Schedule of Classes), 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 reexamination 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) mailing a written notice to Enrollment and Degree Services, Attn: Cancellation Clerk, 1113 Murphy Hall, UCLA, Box 951429, Los Angeles, CA 90095-1429 or (2) faxing a written notice to (310) 206-4520. Refund is as follows: fees paid by new undergraduate students are refunded except for the nonrefundable acceptance of admission fee and service fee; fees paid by new M.B.A. and Dentistry students are refunded except for their respective nonrefundable acceptance of admission fee; for new graduate, continuing, and reentering 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 compete 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 Notice of Withdrawal, available from their academic dean’s office (undergraduates) or departmental office (graduate students).

When students officially withdraw, a percentage of the registration fee may be refunded depending on the date the withdrawal form is filed.

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 fee 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 counselor before enrolling elsewhere. On returning
to UCLA, they must have an official transcript mailed from the institution directly to UCLA Undergraduate Admissions and Relations with Schools (UARS). Once students request a transcript, they must complete a Transfer Credit Evaluation Request form at UARS, 1147 Murphy Hall, to have coursework evaluated.

**Reentering Students**

To return to the University after an absence of more than one term, 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. ☎ 310-825-1091, option 6

**Graduate Readmission**

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

**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 a maximum of six quarters 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 Office of 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 information when their leave is due to expire.

Obtain a Request for Leave of Absence form from the academic department. See the Schedule of Classes calendar for the filing deadline.

**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 compete for readmission with new applicants.

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://www.gdnet.ucla.edu. Payment of the nonrefundable application fee may be paid by credit card or by check or money order. The following materials must also be submitted:

1. The Graduate Petition for Change of Major, if appropriate (students who are reapplying in a new major), along with the UCLA graduate transcript
2. Transcripts of all academic work completed since registration at UCLA as a graduate student

**Transcripts and Records**

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

Official UCLA transcripts are printed on security paper to safeguard against unauthorized duplication, alteration, and misrepresentation. The security paper is blue with a faint background design and a border with the words “University of California, Los Angeles.” Authentication details are located in the lower
right-hand corner of the transcript, and the tran-
scription legend is located on the reverse of the docu-
ment. Transcripts are issued in blue envelopes
marked “Official Transcripts Enclosed.”

CLOSURE OF STUDENT RECORDS

Student records are closed to revisions in enroll-
ment, grading, and academic actions on award of a
degree. Students are responsible for request-
ing 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.adminvc
.ucla.edu/appm/_entry_200.html.
Changes requested by an individual after
award of a degree are considered by the Col-
lege or school only under extraordinary cir-
stances. 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.

Two versions of official UCLA student records are
available from Academic Record Services, 1134
Murphy Hall. These are the academic transcript and
the verification transcript. Each is designed to meet
specific needs.

ACADEMIC TRANSCRIPT

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

Grades for completed terms are processed immedi-
ately following the conclusion of final examinations.
Complete academic transcripts are available approxi-
ately 30 working days after the last day of the
term. For graduating students, academic transcripts
with the graduation date included are available
approximately seven weeks after the end of the term.
Students who require earlier proof of graduation
should contact a degree auditor in 1113 Murphy
Hall. A fee may be charged for this service.

The minimum period required for processing and
issuing academic transcripts for both registered and
former students is three working days.

VERIFICATION TRANSCRIPT

The verification transcript certifies registration (fee
payment), enrollment status, and degrees. For auto
insurance “good student” discount, insurance forms
should be presented at 1134 Murphy Hall. The ver-
ification fee is required for this service. Verification
transcripts confirm student status only after registra-
tion 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 students’
degrees have been posted to their student record
approximately seven weeks after the term ends.
Students who require verification before their degree
is posted should contact their degree auditor in
1113 Murphy Hall.

The fee for a verification transcript is waived if
requested for loan or student aid verifications (proof
of request required). Most enrollment verifications
for loans and creditors, however, are processed for
the University by the National Student Clearing-
house. Approved by the U.S. Department of Educa-
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).

ORDERING TRANSCRIPTS

Academic and verification transcripts can be ordered
by sending a request to UCLA Registrar’s Office,
Attn: [Academic or Verification] Transcripts, 1105
Murphy Hall, Box 951429, Los Angeles, CA 90095-
1429.

Requests should include the student’s
1. Name under which they were registered at
   UCLA
2. Dates of attendance at UCLA
3. Date of birth
4. Social security number and/or student I.D.
5. Complete address and telephone number
6. Number of copies requested
7. Mailing instructions including all details and
   any special handling
8. Full signature

Transcript request forms containing this informa-
tion are available in the Murphy Hall North Lobby
or at http://www.registrar.ucla.edu/forms/.

For UCLA Extension courses, order transcripts from
UCLA Extension, P.O. Box 24901, Department K,
Los Angeles, CA 90024-0910.
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) 825-3801 or by contacting transcripts@registrar.ucla.edu.

FEES AND PAYMENT
Current students’ transcript fees are billed to their BAR account. Former students may be billed or may submit a check or money order payable to Regents-UC.

In some cases, special fees may apply. Forms that must be completed by the Registrar’s Office or 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. Transcripts that are faxed 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/.

CERTIFICATE OF RESIDENT STUDY
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.

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 following the last date of attendance. Students may view their documents in Academic Record Services, 1134 Murphy Hall. Advance notice of two to three days is required for viewing. ☎ 310-825-3801

UNIVERSITY RECORDS SYSTEM ACCESS
Through University Records System Access (URSA), UCLA students acquire academic, financial, and personal information from their University academic records. Students may access the system for up to 10 years after their graduation or last term of attendance. See http://www.ursa.ucla.edu.

As needed, students may obtain a free printout of their grades for the most recent graded term from the Registrar’s Office, 1113 or 1134 Murphy Hall, by presenting their valid current-term BruinCard.

CHANGE OF NAME OR ADDRESS
Students who wish to change their name on official University records should fill out a UCLA Correction or Change of Name form (available in the Murphy Hall North Lobby) and submit it to Enrollment and Degree Services, 1113 Murphy Hall. All name changes are recorded on the transcript. If students change their address, they should update their address through URSA or at Enrollment and Degree Services.

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 URSA 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 in ASSIST (http://www.assist.org), the statewide transfer information site. Students can get some knowledge of transfer credit from 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 transcripts to Undergraduate Admissions and Relations with Schools (UARS), 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). The UCLA UARS 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 × 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666—for example, 12 quarter units × .666 = 7.99 or 8 semester units.

**Summer Sessions**

Summer Sessions grades at any UC campus other than UC Santa Cruz (unless the letter-grade option is elected at UCSC) 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. Remember that 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 is different for the College and each school.

**College of Letters and Science**

The Degree Progress Report (DPR) serves as the degree check. The DPR is an assessment of all degree requirements and the courses taken to fulfill them. View and print DPRs through URSA or order one at a College counseling office (Academic...
ACADEMIC POLICIES

Students should review questions about their DPR with departmental undergraduate advisers or College counselors, as appropriate.

School of the Arts and Architecture
Degree Progress Reports are available via URSA as well as on request from the Student Services Office, 194 Kinross South. Students should consult an adviser in the Student Services Office when they have questions about degree requirements. Questions regarding major requirements should be referred to the departmental counselor.

Henry Samueli School of Engineering and Applied Science
Students starting their upper division major field coursework must submit a “satisfied” Academic Program Proposal to the Office of Academic and Student Affairs, 6426 Boelter Hall. All engineering students may pick up a Graduation Evaluation Report at 6426 Boelter Hall. The report outlines the courses completed for each required category of the student’s major. Students should obtain an official degree check at least one term prior to their graduation term. For details, see http://www.seasosa.ucla.edu/degree_check.html.

School of Nursing
Students may initiate a request for an updated degree check by contacting the student services coordinator in the Student Affairs Office, 2-200 Factor Building.

School of Theater, Film, and Television
Students entering as freshmen receive a written degree check on achieving junior standing. Students entering as juniors receive a degree check on entry. Students may initiate or request an updated degree check by making an appointment with their departmental counselor in the Student Services Office, 103 East Melnitz Building.

GRADUATE DEGREES

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

GRADUATION

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

UNDERGRADUATE STUDENTS

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.

DECLARATION OF CANDIDACY

To initiate the steps leading to the award of a bachelor’s degree, students must identify the term they expect to complete degree requirements through URSA by the time they complete 160 units (172 units for engineering students) to avoid a late 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 purchase the UCLA Declaration of Candidacy form at any UCLA Store and file it at 1113 Murphy Hall. The form is also 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 URSA. For questions about degree candidacy status, Letters and Science students may inquire at 1113 Murphy Hall. Arts and Architecture, Theater, Film, and Television, Engineering, and Nursing students should see their school office. A photo I.D. is required. Declaring candidacy is not a guarantee of graduation.

IN ABSENIA GRADUATION

Students who intend to complete degree requirements while nonregistered (those who take a course through UCLA Extension or at another institution, remove an Incomplete grade, and so on) must 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 service 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.
ACADEMIC POLICIES

FINAL DEGREE AUDITS AND GRADUATION

Degree auditors in the Registrar’s Office for Letters and Science students (194 Kinross South for Arts and Architecture students, 6426 Boelter Hall for Engineering students, 2-200 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 effect 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 mailed to each current-term candidate who does not satisfy degree requirements that term. Students who receive such notices should contact a degree auditor immediately. If students expect to satisfy degree requirements in a later term, they must change their degree expected term through URSA or at 1113 Murphy Hall. They may be assessed applicable fees.

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 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 pro-

DIPLOMAS

Diplomas for both undergraduate and graduate students are available approximately three to four months after the degree award date. Information about obtaining the diploma in person (no fee) or by mail (with fee) is sent to students approximately seven weeks after the end of their final term. To expedite receipt of the diploma, students should return the diploma mailer form and remit the mailing fee. Obtain recorded diploma availability information at (310) 825-8883. The Registrar’s Office retains diplomas for five years from graduation date.

Change of Name

To be reflected on the diploma, name changes must be submitted to Academic Record Services, 1134 Murphy Hall, by the last day of the degree expected term. Students submitting name changes after that date must request a replacement diploma at 1113 Murphy Hall and pay an additional fee.

Duplicate Diplomas

If the original diploma is destroyed, a duplicate may be ordered by contacting the Registrar’s Office, Diploma Reorder, 1113 Murphy Hall. 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://www.gdnet.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

Patricia O’Brien, Executive Dean

UCLA
2300 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430
(310) 825-1965 (College Academic Counseling)
http://www.college.ucla.edu

“The Idea of a Multiversity is a city of infinite variety. Some get lost in the city; some rise to the top within it; most fashion their lives within one of its subcultures. . . . It offers . . . a vast range of choices, enough literally to stagger the mind. In this range of choices . . . (one) encounters the opportunities and the dilemma of freedom.”

Clark Kerr, The Uses of the University

With over 23,500 students and more than 900 faculty, UCLA’s College of Letters and Science is the largest academic unit in the UC system. The four academic divisions of humanities, physical sciences, social sciences, and life sciences provide the framework for more than 130 majors leading to the Bachelor of Arts or Bachelor of Science as well as to master’s and doctoral degrees.

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.

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

ORGANIZATION OF THE COLLEGE

The primary units of the College are the academic departments, which are grouped in four divisions: Humanities, Life Sciences, Physical Sciences, and Social Sciences. Each division is headed by a dean who reports directly to the executive dean. A fifth division, Honors and Undergraduate Programs, provides academic programs, academic services, and scholarships for undergraduate students. It is headed by the dean and vice provost for undergraduate education. A sixth division, the UCLA International Institute, provides the education of global citizens through its degree programs, centers, and the people-to-people linkages it fosters among students, scholars, and citizens around the world. It is headed by the dean and vice provost of the institute.

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 ways we communicate. Historians of religion, music, and art explore with students the forms and media through which humans have sought to express themselves and to challenge and make sense of their worlds. Programs in the humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers.

LIFE SCIENCES

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
letters and college of science

remote sensing and imagery, textual analysis, ethnoarchaeology, linguistics, statistics, game theory, methods of social and environmental analysis, such as archaeology, ethnography, geographic information systems, fieldwork, and ecology.

Honors and Undergraduate Programs

The Honors and Undergraduate Programs Division provides academic programs, services, and scholarships through a number of units.

Academic Advancement Program. The Academic Advancement Program (AAP) is a multiracial, multiethnic, and multicultural program that promotes academic excellence through academic counseling, mentoring, tutorials, and faculty workshops. See http://www.college.ucla.edu/up/aap/.

Academics in the Commons. The Academics in the Commons (ATTC) program provides students, through workshops and tutorials, with an understanding of skills and techniques, an awareness of campus resources, and knowledge of self, so that personal and academic success at UCLA can be achieved. See http://www.college.ucla.edu/up/attc/.

Center for Community College Partnerships. The Center for Community College Partnerships (CCCCP) develops academic partnerships between California community colleges and the University to strengthen and diversify curriculum, create strong academic support programs, improve students’ competitiveness for UC admissions, and increase the diversity of the UCLA transfer admit pool. See http://www.college.ucla.edu/up/ccccp/.

Center for Community Learning. The Center for Community Learning (CCL) serves faculty members, undergraduate students, and community partners through academic programs, including credit-bearing internships, service learning courses, community-based research, and service scholarships. It is home to the Greater Los Angeles Regional Center for Student Civic Engagement, supported by the California Campus Compact. The center works closely with the Center for Community Partnerships and the UCLA in LA Initiative. See http://www.college.ucla.edu/up/ccl/.

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.college.ucla.edu/up/counseling/.

Honors Programs. Honors Programs offer academic programs and services designed to promote an outstanding honors education, including Honors Collegium, Departmental Scholars, Individual Majors Program, Phi Beta Kappa, Honors Scholarships, and specialized counseling and support services for College honors students. See http://www.college.ucla.edu/up/honors/.

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.

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 behavior 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, ethnoarchaeology, and geographic information systems.

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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.college.ucla.edu/up/counseling/.

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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.

Orientation Program. The Orientation Program 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 the transition to UCLA a great one. See http://www.orientation.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.college.ucla.edu/up/src/.

Transfer Alliance Program. The Transfer Alliance Program (TAP) strengthens academic ties between UCLA and honors programs in 38 community colleges to provide specialized transfer programs for participating students. See http://www.admissions.ucla.edu/Prospect/Adm_tr/ADM_CCO/tap.htm.

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 Seminars, Freshman Cluster Program, and Writing II Program.

Undergraduate Evaluation and Research Office. The Undergraduate Evaluation and Research Office provides information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA. See http://www.college.ucla.edu/up/eval/.

Undergraduate Research Centers. Undergraduate Research Centers (URC)—one for students in the humanities and social sciences and one for students in the life sciences and physical sciences—exist as part of a continuing effort by the College to engage undergraduate students in research and creative activities at all levels. See http://www.college.ucla.edu/ugresearch/index.html.

UCLA INTERNATIONAL INSTITUTE

The UCLA International Institute comprises 15 multidisciplinary research centers and 13 interdepartmental degree programs that focus on major world regions and on global issues that cut across regional boundaries. The institute is committed to the education of global citizens through its research, teaching programs, and the knowledge and people-to-people linkages it fosters among students, scholars, and citizens around the globe. Major issues include security concerns that transcend traditional interstate conflict; new forms of governance and coordination, whether by governments, nongovernmental organizations, or markets; the causes and effects of globalization; transnational cultures and multiple identities (or resistance to these trends); and public health, the environment, and economic development.

The U.S. Department of Education has recognized the institute's excellence in area studies by designating National Resource Centers in Africa, East Asia, Europe, Latin America, Near East, and Southeast Asia. The Asia Institute acts as a catalyst for interdisciplinary teaching and research among six specialized Asian studies centers. The Ronald W. Burkle Center for International Relations provides teaching, research, and policy advice on the most pressing issues affecting the U.S. and the world. All of the centers have formed extensive scholarly alliances with higher education institutions around the world.

The majors in African, East Asian, European, Latin American, Middle Eastern and North African, South Asian, and Southeast Asian Studies provide students with in-depth learning in the languages, cultures, and histories of those regions. At the graduate level, the Islamic Studies Program offers graduate degrees in that global region and its associated cultures. The Global Studies undergraduate major provides students with interdisciplinary and problem-oriented academic training in the core issues that affect the contemporary world. Students have the opportunity to live, study, and work abroad and to engage in yearlong research projects. The International Development Studies major gives undergraduate students the opportunity to study development from economic, historical, political, and social perspectives. Each year more than 600 UCLA students travel abroad through the Education Abroad Program to more than 150 institutions in 33 countries.

The institute is also home to the Fulbright Program for Greater Los Angeles, which hosts international Fulbright scholars and introduces them to the community. The International Visitors Bureau serves as a liaison between UCLA and international academic and professional leaders while hosting more than 800 visitors each year in programs that incorporate the intellectual, cultural, ethnic, and linguistic diversity of the campus and greater Los Angeles. The Language Resource Center provides research that enhances foreign language teaching, learning, and testing to meet student, academic, and professional needs and serves local, national, and international
agencies in the design, implementation, and evaluation of programs dedicated to modern language education. See http://www.international.ucla.edu.

UNDERGRADUATE DEGREE REQUIREMENTS

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

Degree programs in the College offer students a variety of intellectual challenges by combining a wide distribution of courses and the opportunity to specialize in one particular field. To this end, students are required to select lower division courses that provide general foundations of human knowledge. In upper division courses, they concentrate on one major field of interest.

As described below, College students must meet three types of requirements for the Bachelor of Arts or Bachelor of Science degree:

1. University requirements
2. College 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. 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 for transfer credit an English composition course after enrolling at UCLA. See Degree Requirements in the Undergraduate Study section for details.

COLLEGE REQUIREMENTS

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

UNIT REQUIREMENT

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor's degree. At least 60 of the 180 units must be upper division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with advanced placement or international baccalaureate (transfer) credit may exceed the unit maximum by the amount of that credit.

SCHOLARSHIP REQUIREMENT

Students must earn at least a C (2.0) grade-point average in all courses undertaken at UCLA for receipt of the bachelor's degree. They must also attain a 2.0 GPA in a major and satisfy both the course and scholarship requirements for that major, including preparation for the major.

ACADEMIC RESIDENCE REQUIREMENT

Thirty-five of the final 45 units completed for the bachelor's degree must be earned in residence in the College. A minimum of 24 upper division units must be completed in the major while in residence in the College. The academic residence requirements apply to all students, both continuing and transfer.

COLLEGE WRITING REQUIREMENT

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

New students admitted to the College are required to complete a two-quarter College writing requirement—Writing I and Writing II. Continuing and returning students fulfill the requirements in effect prior to Fall Quarter 1999. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, 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 or 3H, or an equivalent course approved by the College.
Faculty Executive Committee, within the first three quarters of enrollment.

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or by a combination of a score of 720 or better on the SAT II Subject Test in Writing 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 is satisfied by selecting a course from a list of courses approved by the College Faculty Executive Committee. Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and are available in College Academic Counseling. Most Writing II courses may also be applied toward general education (GE) requirements or toward some preparation for the major requirements. It is strongly recommended that the requirement be fulfilled within the first six quarters of enrollment.

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

**Quantitative Reasoning Requirement**

In the College of Letters and Science, students must demonstrate basic skills in quantitative reasoning. All courses taken to satisfy the quantitative reasoning requirement must be completed with a grade of Passed or C or better. The quantitative reasoning requirement can be satisfied by achieving an SAT I mathematics score of 600 or better, an SAT II Subject Test in Mathematics score of 550 or better, or by completing one of the following courses: Anthropology M80, Biostatistics 100A, 100B, Geography M40, Mathematics 2 (or any higher numbered course except 38A, 38B, and 38C), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Sociology M18, Statistics 10, 10A, 10H, 11, M12, 13, 14.

**Foreign Language Requirement**

The foreign language requirement can be satisfied by one of the following methods: (1) completing a college-level foreign language course equivalent to level three or above at UCLA or (2) scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in French, German, or Spanish, thereby earning College credit or (3) presenting a UCLA foreign language departmental examination score indicating competency through level three. Consult the Schedule of Classes 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.

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

- **African Languages (Linguistics)** 1A-1B-1C or 15 (Swahili); 7A-7B-7C or 17 (Zulu); 11A-11B-11C or 25 (Yoruba); 31A-31B-31C or 35 (Bambara); 41A-41B-41C or 45 (Hausa); 51A-51B-51C (Amharic); 61A-61B-61C (Wolof); 75 (Chichewa); 85 (Senwana)
- **Afrikaans (Germanic Languages)** 105A and 105B
- **Ancient Near East (Near Eastern Languages)** 120A-120B-120C (Ancient Egyptian); 140A-140B-140C (Sumerian)
- **Arabic (Near Eastern Languages)** 1A-1B-1C
- **Armenian (Near Eastern Languages)** 101A-101B-101C or 104A-104B-104C
- **Berber (Near Eastern Languages)** 101A-101B-101C
- **Bulgarian (Slavic Languages)** 101A-101B-101C
- **Chinese (Asian Languages)** 1, 2, and 3, or 1A, 2A, and 3A, or 8
- **Czech (Slavic Languages)** 101A-101B-101C
- **Dutch (Germanic Languages)** 103A-103B, and 103C, or 104A-104B
- **French (French and Francophone Studies)** 1, 2, and 3, or 8
- **German (Germanic Languages)** 1, 2, and 3, or 8
- **Greek (Classics)** 1, 2, and 3, or 16; 15 (Modern Greek)
- **Hebrew (Near Eastern Languages)** 1A-1B-1C
- **Hungarian (Slavic Languages)** 101A-101B-101C
- **Indigenous Languages of the Americas (Linguistics)** 17 or 18A-18B-18C (Quechua)
- **Iranian (Near Eastern Languages)** 1A-1B-1C or 20A-20B-20C (Persian)
- **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 10
- **Latin (Classics)** 1, 2, and 3, or 16 or 100
- **Polish (Slavic Languages)** 101A-101B-101C
- **Portuguese (Spanish and Portuguese)** 1, 2, and 3, or 102A-102B
- **Romanian (Slavic Languages)** 101A-101B-101C or 104A-104B
- **Russian (Slavic Languages)** 1, 2, and 3, or 11A-11B-11C (Modern Russian)
- **Scandinavian (Near Eastern Languages)** 1A-1B-1C
- **Semitics (Near Eastern Languages)** 140A-140B and 141 (Akkadian)
- **Serbian/Croatian (Slavic Languages)** 101A-101B-101C
- **South Asian (Asian Languages)** 40A-40B-40C or 40R (Hindi)
- **Southeast Asian (Asian Languages)** 50A-50B-50C or 50D-50E-50F (Vietnamese); 60A-60B-60C or 60R (Thai); 70A-70B-70C (Tagalog); 80A-80B-80C (Indonesian)
- **Spanish (Spanish and Portuguese)** 1, 2, and 3, or 2A and 3A
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.

In 2002, the College changed its general education curriculum. Depending on when students enter UCLA and whether they enter as freshmen or transfer students, the requirements vary. For transfer students, applicability of either plan depends on whether or not they have completed the Intersegmental General Education Transfer Curriculum (IGETC).

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

### College of Letters and Science General Education Requirements

#### Foundations of the Arts and Humanities
- Literary and Cultural Analysis: 1 Course
- Philosophical and Linguistic Analysis: 1 Course
- Visual and Performance Arts Analysis and Practice: 1 Course

Total = 15 units minimum

#### Foundations of Society and Culture
- Historical Analysis: 1 Course
- Social Analysis: 1 Course
- Third course from either subgroup: 1 Course

Total = 15 units minimum

#### Foundations of Scientific Inquiry
- Life Sciences: 2 Courses
- Physical Sciences: 2 Courses

In each subgroup, one of the two courses must be 5 units and carry either laboratory, demonstration, or Writing II credit. Each of the other two courses may be 4 units.

Total = 18 units minimum

### Total GE

10 Courses/48 Units Minimum

One of the 10 courses must be either an approved lower division seminar or a second Writing II course in an appropriate foundation area.

### Requirements for Freshmen Who Entered Fall Quarter 2002 and Transfer Students Who Entered Fall Quarter 2004

#### Foundations of Knowledge

Students on this plan follow a general education curriculum that is grouped into three areas or Foundations of Knowledge: 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. One of the 10 courses must be either a GE-approved lower division seminar or a second GE-approved Writing II course in the appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who complete a GE Cluster series (1) fulfill the College Writing II requirement, (2) complete a third of their general education requirements, (3) fulfill the GE seminar requirement, and (4) receive laboratory/demonstration credit where appropriate.

#### 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 students with the perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide students with 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:
- 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 particular historical questions, societal problems, or topics 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 a laboratory or demonstration or carry Writing II credit. Each of the other two courses 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 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/GE-LSFr04-05.pdf.

Requirements for Freshmen Who Entered Prior to Fall Quarter 2002 and Transfer Students Who Entered Prior to Fall Quarter 2004

For the approved list of courses, see http://www.registrar.ucla.edu/ge/GE-LSCon04-05.pdf.

Advanced Placement Test Credit

Freshmen who entered Fall Quarter 2002 and transfer students who entered Fall Quarter 2004 may not use Advanced Placement (AP) credit to satisfy the College’s 10-course foundational area general education requirement. See the AP Chart at http://www.admissions.ucla.edu/prospect/APCreditLS.htm. Consult a departmental or College counselor for applicability of AP credit toward course equivalencies or satisfaction of Preparation for the Major requirements.

Students who entered as freshmen prior to Fall Quarter 2002 and transfer students who entered prior to Fall Quarter 2004 should consult a College counselor for application of AP credit.

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. Otherwise, they must fulfill the College GE requirements.

Students who are unable to complete one or two IGETC courses for good cause may petition the community college for partial completion of

Fiat Lux Freshman Seminars

In keeping with the ideal expressed by the University of California motto, Let There be Light, each term UCLA offers one-unit freshman seminars to illuminate the many paths of discovery explored by UCLA faculty.

In 2005-06, UCLA will offer up to 200 one-unit freshman seminar courses that span the rich array of fields studied at UCLA. Each course enrolls up to 20 students, with preference given to entering freshmen.

“This seminar gave me a chance to experience and explore a part of the world that was foreign to me. It made me think, it made me angry, sad, and it gave me hope.” student comment

“One of the . . . drawbacks to receiving an outstanding undergraduate education at UCLA is the large lecture courses. Student learning takes place in small seminars. In small discussions, students have to be encouraged to explore and must be challenged to go deeper with their ideas. . . . They must come to trust their own minds. Fiat Lux seminars encourage students to think and do.” faculty comment
IGETC. If the petition is approved by the community college, the remaining courses must be completed with a minimum grade of C within one calendar year after admission to UCLA. Failure to complete IGETC coursework within the specified time period results in a permanent denial of IGETC certification, and students 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. All courses 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 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. The consent of the Honors and Undergraduate Programs Division and the assistance of a faculty adviser are required.

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 senior thesis of at least 8 but no more than 12 units is required. For details about individual majors, contact the Honors Program Office, A311 Murphy Hall. ☎ 310-825-1553

**Double Majors.** Students in good academic standing may be permitted to have a double major consisting of departmental 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.

Specializations, such as the Computing specialization, 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 13 units. First-term transfer students from any other campus of the Uni-
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 quarter.

The Degree Progress Report (DPR) 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. College Academic Counseling staff members assist students with College requirements and degree planning and provide DPRs on request. Students can also view DPRs through URSA or MyUCLA.

**MINIMUM PROGRESS/EXPECTED CUMULATIVE PROGRESS**

For freshmen who entered Fall Quarter 2001 and later and transfer students who entered Fall Quarter 2003 and later, the following requirements apply. During a regular quarter 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.college.ucla.edu/up/counseling/regulations/exprog.htm.

For freshmen who entered prior to Fall Quarter 2001 and transfer students who entered prior to Fall Quarter 2003, see http://www.college.ucla.edu/ask_email/faqs/index.htm for the minimum progress requirements.

**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 less than 10 units per quarter and is presumed to be of a permanent nature. On approval of part-time status, a reduction of the educational fee by one half and a reduction of the nonresident 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 quarters. Once approved for part-time study, students must complete two courses of 10 units or less in each of the three consecutive quarters. 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 quarter. Students approved for part-time study who become enrolled in or receive credit for 10 or more units during a quarter must pay the full fees for that quarter.

**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 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.
REENTERING 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 College Academic Counseling 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 a counselor in College Academic Counseling.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Progress Report (DPR) from Undergraduate Admissions and Relations with Schools indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the College. Consult a counselor in College Academic Counseling about these limitations.

Advanced Placement Tests. Advanced Placement (AP) Test 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.admissions.ucla.edu/prospect/APCreditLS.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 completed 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 (Ethnomusicology 91A through 91Z, 161A through 161Z, Music C90A through 90P, and World Arts and Cultures 5 through 16, 56 through 65, C109A, C113A, C115) 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: Anthropology M80, Geography M40, Sociology M18, Statistics 10, 10A, 10H, 11, M12, 13, 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.college.ucla.edu/up/honors/.

DEAN’S HONORS

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on the student records: (1) a 3.75 GPA 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 3.865 or better) for summa cum laude, the next five percent (GPA of 3.777 or better) for magna cum laude, and the next 10 percent (GPA of 3.644 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 eligibility. Students should consult their Degree Progress Reports 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.

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 the master’s and doctoral degrees. For complete degree requirements, see Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

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

Gerald S. Levey, Dean and Vice Chancellor

UCLA
12-105 Center for the Health Sciences
Box 957035
Los Angeles, CA 90095-7035
(310) 825-6081
e-mail: somadmss@mednet.ucla.edu
http://dgsom.healthsciences.ucla.edu

At the David Geffen School of Medicine at UCLA, faculty members and students play a dynamic role...
on campus and in Los Angeles communities. Not only are they in the clinics, wards, and operating rooms of the UCLA Medical Center and Los Angeles County Harbor-UCLA Medical Center, they are also at work in the facilities of the Molecular Biology Institute, the Department of Physiology, the Health Sciences Computer Center, the Neuropsychiatric Institute, and in dozens of other clinical and scientific units. They are in community clinics, health fairs, and schools, and assist at disaster sites in the international community.

Students at the UCLA Medical Center 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, and a biomedical library that is considered one of the world’s best.

Geffen School of Medicine departments are each staffed by a distinguished faculty of respected researchers and practitioners. They have some of the most technologically advanced equipment and facilities, including two of the nation’s 56 hospital-based biomedical cyclotrons producing short-lived radioisotopes for biological research and diagnostic nuclear medicine procedures.

DEGREES AND PROGRAMS

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

- Biological Chemistry (M.S., Ph.D.)
- Biophysics (M.S., Ph.D.)
- Biomedical Physics (M.S., Ph.D.)
- Clinical Research (M.S.)
- Human Genetics (M.S., Ph.D.)
- Microbiology, Immunology, and Molecular Genetics (M.S., Ph.D.)
- Molecular and Medical Pharmacology (M.S., Ph.D.)
- Molecular, Cellular, and Systems Biology (M.S., Ph.D.)
- Neurobiology (M.S., C.Phil., Ph.D.)
- Neuroscience (Ph.D.)
- Pathology—Cellular and Molecular Pathology (M.S., Ph.D.)
- Physiology (M.S.)
- Psychiatry and Biobehavioral Sciences Clinical Psychology Internship (Certificate)

M.D. DEGREE PROGRAM

The Doctor of Medicine (M.D.) degree program develops a comprehensive scientific and humanistic approach to patient care that includes basic sciences, preventive medicine, diagnosis, and therapeutics. Clinical skills are taught in the context of anatomical, molecular, pathophysiological, and psychosocial factors in health, disease, and treatment.

The curriculum is presented in an integrated, organ system-based curriculum, with problem-based learning and laboratories to maximize the educational experience. Because medical school is but one phase in a physician’s education, the curriculum prepares students for a future in which scientific knowledge, social values, and human needs are ever changing. Formats for instruction include lectures, tutorials, seminars, laboratories, demonstrations, and visits to physicians’ offices; 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, or 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, preventive medicine, and medical ethics.

For details on the M.D. curriculum or to apply to the program, see http://dgsom.healthsciences.ucla.edu or contact the Geffen School of Medicine Admissions Office, 12-105 CHS, UCLA, Box 957035, Los Angeles, CA 90095-7035. See http://www.career.ucla.edu/gradschool/health/md.asp for details on the four-year premedical studies program.

SPECIAL PROGRAMS

Special programs address the needs and issues of specific communities and populations.

UCR/UCLA Thomas Haider Biomedical Sciences Program

The UCR/UCLA Thomas Haider Biomedical Sciences Program is a cooperative venture involving UC Riverside, the Geffen School of Medicine, and selected Riverside community sites. Students may earn both the B.S. and M.D. degrees through a combined program maximizing the curricula of both. See http://www.biomed.ucr.edu.

Drew/UCLA Medical Education Program

The Drew/UCLA Medical Education Program is designed to attract students who are interested in addressing the concerns of underserved populations. Students in the program spend their first two years at the UCLA campus and complete their last two years of clinical work at the King/Drew Medical Center on the Charles R. Drew University of Medicine and Science campus. See http://www.cdrew.edu.
ARTICULATED AND CONCURRENT DEGREE PROGRAMS
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 seven 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 for details. ☎ 310-794-1817

Concurrent programs with the John E. Anderson Graduate School of Management and the School of Public Health allow UCLA medical students to earn both the M.D. and M.B.A. 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 or School of Public Health during the third year of medical school. ☎ 310-825-6282

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 West Los Angeles VA Medical Centers, Sepulveda-San Fernando Valley Program, and many others. Programs at the affiliated institutions broaden the scope of the teaching programs by 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.

ALLIED HEALTH PROGRAMS
For information on allied health programs in the Center for the Health Sciences, call ☎ 310-794-8352.

NEUROPSYCHIATRIC INSTITUTE
The UCLA Neuropsychiatric Institute (NPI) is one of the world’s leading interdisciplinary research and education institutes devoted to the understanding of complex human behavior. Ten 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.mentalhealth.ucla.edu.

GRADUATE SCHOOL OF EDUCATION AND INFORMATION STUDIES
Aimée Dorr, Dean
UCLA
1009 Moore Hall
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Los Angeles, CA 90095-1521
(310) 825-8326
fax: (310) 206-6293
e-mail: info@gseis.ucla.edu
http://www.gseis.ucla.edu

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

GSEIS is committed to the highest quality professional education and to the application of research 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 and doctoral training programs prepare top scholars and researchers in their respective fields, while future librarians and information professionals, teachers, student affairs counselors, school administrators, and superintendents are trained in the various professional degree programs. Additionally, the Corinne Seeds University Elementary
School provides an innovative educational program for students 4 to 12 years old.

DEGREES
The school offers the following degrees, in addition to an undergraduate Education Studies minor:
- Education (M.A., M.Ed., Ed.D., Ph.D.)
- Educational Administration (Joint Ed.D. with UC Irvine)
- Library and Information Science (M.L.I.S., Ph.D.)
- Moving Image Archive Studies (M.A.)
- Special Education (Joint Ph.D. with California State University, Los Angeles)

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 three concurrent degree programs:
- Education M.Ed., M.A., Ed.D., or Ph.D./Law J.D.
- Library and Information Science M.L.I.S./History M.A.
- 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 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://www.gdnet.ucla.edu/gasaa/admissions/admisinfo.html.

Departments in the school set additional admission requirements. See http://www.gseis.ucla.edu/admissions/.

DEGREE REQUIREMENTS
Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

RESEARCH CENTERS
The centers outlined below provide GSEIS with valuable resources that support school programs and research. See http://www.gseis.ucla.edu/research/.

CALIFORNIA CENTER FOR THE BOOK
The California Center for the Book is a reading promotion agency that celebrates California's rich literary heritage and promotes reading, libraries, literacy, and authorship. In support of its mission, the center develops and supports local and statewide programs and initiatives related to books and reading for the citizens of California, develops and maintains book- and literacy-related resources, and encourages and supports the study of print and electronic culture. The center is supported by the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered in California by the State Librarian. See http://www.calbook.org.

CENTER FOR ENTREPRENEURIAL LEADERSHIP CLEARINGHOUSE ON ENTREPRENEURSHIP EDUCATION
The Center for Entrepreneurial Leadership Clearinghouse on Entrepreneurship Education (CELCEE) is a joint project of UCLA and the Kauffman Center for Entrepreneurial Leadership. CELCEE acquires information from diverse sources—journal articles, websites, syllabi, conferences, curriculum guides, government publications, videos, books, and software—that pertains to entrepreneurship education and related topics from K-12 to postgraduate studies and from rural America to urban Asia. The CELCEE staff provides abstracts of the resources, which are indexed and organized in an online database that meets all national Library of Education standards for web pages. See http://www.celcee.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 focuses around three interacting themes: accountability, artifacts, and advocacy. See http://www.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 provide quality information on a variety of issues 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. CIDE acts as a hub for researchers and organizations to network with and learn about critical issues in international and development education from a wide range of fields and disciplines. See http://www.gseis.ucla.edu/~cide/.
The Center for Research and Innovation in Elementary Education (CONNECT) provides a unique setting where nationally recognized scholars work together with teachers and administrators to improve education for the nation's children. Recognizing the dramatic changes in the demographics of the American classroom and the challenges they present to public schools, the center combines the resources of UCLA and its laboratory elementary school to foster collaboration between researchers and practitioners who search for solutions to the problems facing schools as well as strategies for capitalizing on diversity. See http://www.connect.gseis.ucla.edu.

The Center for Study of Evaluation/ National Center for Research on Evaluation, Standards, and Student Testing (CSE/CRESST) is devoted to educational research, development, training, and dissemination. For over 35 years, CSE/CRESST has been at the forefront of efforts to improve the quality of education in America through systematic evaluation practices. As it helps pioneer valid and sensitive evaluation and testing techniques and promotes the use of evaluation for reasoned decision making, CSE/CRESST ensures the best use of student time and taxpayer money.

Focusing on questions basic to public education and its accountability, 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.cresst.org.

The Center for Study of Urban Literacies supports problem-oriented research that seeks to improve the educational experiences of urban children and communities. Specifically, the center houses three distinct but related research strands: (1) the study of language, culture, and human development, (2) the social and cognitive consequences of educational policies and practices, and (3) the study of new and empowering pedagogies. In addition, the center offers programs to K-12 students that are based on the center’s research—UCLinks (Las Redes) afterschool club and the UCLA statewide Migrant Leadership Institute. See http://centerk.gseis.ucla.edu.

Center X draws from the resources of GSEIS, including the school's contributions to education scholarship, its national research centers, and its schooling research and policy analysis programs. The center transforms the UCLA Teacher Education Program and its professional development programs for practicing professional educators into a new configuration of collaborative activities among UCLA faculty members and K-12 teachers. It provides rigorous professional education as it seeks to improve urban schooling for Los Angeles children. See http://centerx.gseis.ucla.edu.

The Higher Education Research Institute (HERI) serves as an interdisciplinary center for research, evaluation, information, policy studies, and research training in postsecondary education. HERI’s research program covers a variety of topics, including the outcomes of postsecondary education, leadership development, faculty performance, federal and state policy, and educational equity. Visiting scholars, faculty members, and graduate students have made use of HERI facilities and research resources since its affiliation with UCLA in 1973. The institute’s holdings include more than 100 datasets that are regularly maintained for analysis of postsecondary education. See http://www.gseis.ucla.edu/heri/heri.html.

The Institute for Democracy, Education, and Access (IDEA) is a network of UCLA scholars and students, professionals in schools and public agencies, advocates, community activists, and urban youth. IDEA’s mission is to make high-quality public schooling and successful college participation routine occurrence in low-income neighborhoods of color. Research and advocacy are the tools IDEA uses to empower individuals, build relationships, and create knowledge for civic participation and social change. Linking a great public research university with committed educators and supportive community alliances, IDEA seeks to become the intellectual home of a broad-based social movement that challenges the pervasive racial and social class inequalities in Los Angeles and in cities around the nation. See http://www.idea.gseis.ucla.edu.

The Institute for Study of Educational Entrepreneurship (ISEE) scholars and practitioners collaborate to investigate and analyze the current and potential impact of educational entrepreneurship—for profit, nonprofit, and intrainstitutional—as driving forces for promoting educational reform and equitable access in the public school sector. See http://www.isee.gseis.ucla.edu.
PAULO FREIRE INSTITUTE
The Paulo Freire Institute/UCLA (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. The objective of PFI is to bring together research, teaching, and technology while concentrating on four major areas: teacher education, a comparative perspective on Latin American education, the politics of education (research on gender, race, class, and the state) 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 is dedicated to providing support for the advancement of education and learning-related issues. Established as a communications channel between the scholarship of GSEIS and policymakers, educators, and the general public, the institute utilizes the popular media as a catalyst toward creating a public forum for the most significant issues related to education and information studies. See http://www.gseis.ucla.edu/sudikoff/.

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. This distinctive UC voice serves as an information and research clearinghouse and catalyst for promoting the delivery of high-quality, equitable schooling to all students. UC ACCORD harnesses the research expertise of the University of California to identify strategies that will increase college preparation, access, and retention. Policymakers, researchers, teachers, outreach staff, and students all benefit from this source of reliable information for equitable education policy and practice. See http://www.ucaccord.gseis.ucla.edu.

UCLA INSTITUTE ON PRIMARY RESOURCES
Sponsored by Corinne A. Seeds University Elementary School and the Young Research Library Department of Special Collections, the UCLA Institute on Primary Resources introduces teachers to primary resources and how they can be used in the K-12 classroom. See http://ipr.ues.gseis.ucla.edu.

UCLA ONLINE INSTITUTE FOR CYBERSPACE LAW AND POLICY
With the growth and development of cyberspace law as a separate discipline, a dynamic new body of scholarship has emerged. The Online Institute’s Cyberspace Law Bibliography—updated regularly since 1995—provides an overview of recent books and journal articles in this area and includes a growing number of links to the works themselves. See http://www.gseis.ucla.edu/tclp/hp.html.

UCLA STATEWIDE MIGRANT STUDENT LEADERSHIP INSTITUTE
UCLA, in partnership with the Office of Migrant Education, the Migrant Regional Directors, and the Concilio de Padres Migrantes, has developed and hosted the statewide Leadership Institute. The institute consists of two separate residential programs that provide an experiential and academic bridge to higher education and future leadership. In particular, the institute develops the intellectual skills and leadership abilities of high-achieving migrant students by providing a rigorous academic and leadership academy supplemented with significant academic and extracurricular activities. See http://centerk.gseis.ucla.edu/msli.htm.

HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Vijay K. Dhir, Dean
UCLA
6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601
(310) 825-2826
http://www.engineer.ucla.edu

Since it was established as the College of Engineering in 1945, the UCLA Henry Samueli School of Engineering and Applied Science (HSSEAS) has been at the forefront of technical research and education. Sixty years later, the school continues to showcase its expertise in emerging disciplines that are transforming the world around us.

The school supports dynamic programs in traditional and new areas of study and research, including bioengineering, wireless networked systems, bio-nano-info technology, wireless communications and computing, signal processing, sensor technologies, nanotechnology and nanomanufacturing, automated flight, alternative energy systems, smart structures and materials, and protection of the environment. Partnerships across traditional academic boundaries reflect the school’s commitment to a wide range of interdisciplinary activities.

Students receive their professional education through classroom lectures, participation in real-world applications, and hands-on experience. The undergraduate degree curriculum provides exposure to the humanities, social sciences, and fine arts and recognizes the responsibility of engineers to create, protect, and manage technology with regard for ethics and
human values. Students who are committed to a high standard of achievement are invited to contribute to the future of excellence in engineering at UCLA.

DEPARTMENTS AND PROGRAMS

The Henry Samueli School of Engineering and Applied Science has seven departments and one interdepartmental program offering study in aerospace engineering, bioengineering, biomedical engineering, chemical engineering, civil engineering, computer science and engineering, electrical engineering, manufacturing engineering, materials engineering, and mechanical engineering—all of which are accredited by the Accreditation Board for Engineering and Technology (ABET), the nationally recognized accrediting body for engineering programs. The computer science and computer science and engineering programs are accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. ☎ 410-347-7700

For specific programs, see the department information in the Curricula and Courses section or refer to the school Announcement available from the Office of Academic and Student Affairs, 6426 Boelter Hall.

DEGREES

The school offers the following degrees:

- Aerospace Engineering (B.S., M.S., Ph.D.)
- Bioengineering (B.S.)
- Biomedical Engineering (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.Engr., 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 select a major within the school when applying for admission. 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 UCLA Undergraduate Admissions and Relations with Schools.

Effective for students entering the University of California as freshman applicants in Fall Quarter 2006: each applicant 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 ACT Writing Test or (2) the SAT Reasoning Test. In addition, all applicants must complete two SAT Subject Tests in two different subject areas selected from history/social science, mathematics (Mathematics Level 2 only), laboratory science, and a language other than English.

Applicants to the school are strongly encouraged to 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.

Applicants seeking admission to the school in freshman standing must also satisfy the following University admission requirements:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>United States History</td>
<td>1 year</td>
</tr>
<tr>
<td>(one year of U.S. history or one-half year of U.S. history and one-half year of civics or American government)</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>4 years</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4 years</td>
</tr>
<tr>
<td>Physics</td>
<td>1 year</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1 year</td>
</tr>
<tr>
<td>Foreign language</td>
<td>2 years</td>
</tr>
<tr>
<td>Other college preparatory requirements</td>
<td>2 years</td>
</tr>
</tbody>
</table>

Credit for Advanced Placement Tests. Students may fulfill part of the school requirements with credit allowed at the time of admission for College Board Advanced Placement (AP) Tests with scores of 3, 4, or 5. Students with AP Test credit may exceed the 213-unit maximum by the amount of this credit. AP Test credit for freshmen entering in Fall Quarter 2005 fulfills HSSEAS requirements as indicated on the school AP chart at http://www.admissions.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 Test 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, mathematics, physics, computer programming, English composition, 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 complete the remaining requirements for one of the B.S. degrees in six terms (two 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 and Engineering degree; the Computer Science degree does not require chemistry; the Chemical Engineering curriculum also requires 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. Engineering courses equivalent to UCLA's Civil and Environmental Engineering 15 or Computer Science 31 or Mechanical and Aerospace Engineering 20
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 more advanced course in English composition.

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.

A course in digital computer programming, using a higher-level language such as Fortran, Pascal, C, or C++, satisfies the computer programming requirement. Applicants to majors in Computer Science, Computer Science and Engineering, and Electrical Engineering should take C++.

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 14 requirements respectively. Check with the Office of Academic and Student Affairs.

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.

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 five requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, English composition, and general education.

UNIT REQUIREMENT

The minimum units allowed for HSSEAS students is between 181 and 205, 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.

ENGLISH COMPOSITION REQUIREMENT
Students must attain a minimum grade of C to satisfy the English Composition 3 requirement, which must be met by the end of the second year of enrollment at UCLA (a grade of C– does not satisfy this requirement). Undergraduate students who have not taken (or otherwise satisfied the requirement for) English Composition 3 at the time they are admitted must complete the course at UCLA during Fall, Winter, Spring, or Summer Quarter. Students may also complete the equivalent to English Composition 3 at any other UC campus during the Summer Quarter only.

GENERAL EDUCATION REQUIREMENTS
HSSEAS general education (GE) requirements must be selected from the GE list at http://www.seasoasa.ucla.edu/ge.html as follows:

1. Six courses from the humanities and social sciences (eight courses for Computer Science majors), with at least two courses from each category

2. One life sciences course (two courses for Computer Science majors; this requirement is automatically satisfied for Bioengineering and Chemical Engineering majors and for the biomedical option of the Electrical Engineering major)

For item 1, at least three courses must be in the same academic department or must otherwise reflect coherence in subject matter. Of the three, at least two must be upper division courses selected from the approved HSSEAS GE course list.

One language course at level four or above may be applied toward the humanities section of the HSSEAS GE requirements. See an academic counselor in 6426 Boelter Hall about language courses.

Computer Science, Computer Science and Engineering, and Electrical Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 183 or 185, which may be applied toward either the humanities or social sciences section of the GE requirements.

Students may take one 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. Only HSSEAS general education courses (with the exception of English Composition 3 and the ethics course) may be taken on a Passed/Not Passed basis. For details on P/NP grading, see Grading in the Academic Policies section or consult the Office of Academic and Student Affairs.

DEPARTMENT REQUIREMENTS
Bachelor’s degree requirements include the following categories, depending on the program selected:

1. Fourteen to 21 engineering major field courses (56 to 84 units)
2. One to 10 engineering core courses (4 to 40 units)
3. One to three upper division mathematics courses (4 to 12 units)

Lists of courses approved to satisfy specific curricular requirements are available from the Office of Academic and Student Affairs.

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.

Students 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 Tests. Some portions of AP Test 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.admissions.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.

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.

DOUBLE MAJORS

Students in good academic standing may be permitted to have a double major consisting of a major within HSSEAS and a major outside the school (e.g., Electrical Engineering and Economics). Students are not permitted to have a double major within the school (e.g., Chemical Engineering and Civil Engineering). Contact the Office of Academic and Student Affairs for details.

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 sophomore year or earlier.

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 transfers 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.

Undergraduate students may use the computerized HSSEAS Academic Program Planner (APP), an interactive system that lets students know if their programs meet the requirements for graduation. Students beginning upper division coursework in the major are required to submit an Academic Program Proposal to the Office of Academic and Student Affairs for approval by the associate dean.

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 Incomplete (I) or Not Passed (NP) grade or repeat a course. Only courses applicable to an undergraduate degree are considered toward eligibility for Dean’s Honors.

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 3.834 or better) for *summa cum laude*, next five percent (GPA of 3.728 or better) for *magna cum laude*, and the next 10 percent (GPA of 3.575 or better) for *cum laude*.

Based on grades achieved in upper division courses, engineering students must have a 3.834 grade-point average for *summa cum laude*, a 3.728 for *magna cum laude*, and a 3.575 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.

**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 Executive Committee.

**WOMEN IN ENGINEERING**

Among HSSEAS students, women make up approximately 23 percent of the undergraduate and 18 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 which sponsors field trips and engineering-related speakers (often professional women) to introduce the various options available to women engineers. The UCLA chapter of SWE, in conjunction with other Los Angeles schools, also publishes an annual résumé book to aid women students in finding jobs and presents a career day for 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, Information Systems, and Technical Management 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 class programs, (310) 825-3344 for short course programs, (310) 825-0328 for engineering classes, and (310) 825-3858 for technical management programs. See http://www.uclaextension.edu.

**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.seasoasa.ucla.edu/adm_grad.html. 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://www.gdnet.ucla.edu/publications.html.

MASTER OF SCIENCE DEGREES

No lower division courses may be applied toward graduate degrees. In addition, the following upper division courses are not applicable toward graduate degrees: Chemical Engineering M105A, 199, Civil and Environmental Engineering 106A, 108, 199, Computer Science M152A, M152B, M171L, 199, Electrical Engineering 100, 101, 102, 103, 110L, M116D, M116L, 199, Materials Science and Engineering 110, 120, 130, 131, 131L, 132, 140, 141L, 150, 160, 161L, 199, Mechanical and Aerospace Engineering 102, 103, M105A, 105D, 199.

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

The comprehensive examination, which is offered every term, is required in written form only. The comprehensive examining committee may conduct an oral query after review of the written examination. In case of failure, students may be reexamined once with the consent of the departmental graduate adviser.

CONCURRENT DEGREE PROGRAM

A concurrent degree program between HSSEAS and the John E. 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 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. ☎ 310-825-1704

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.

Biomedical Engineering Interdepartmental Program. Bioacoustics, speech, and hearing; biocybernetics; biomechanics, biomaterials, and tissue engineering; biomedical instrumentation; biomedical signal and image processing and bioinformatics; molecular and cellular bioengineering; neuroengineering

Chemical Engineering Department. Chemical engineering

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

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

Electrical Engineering Department. Applied mathematics (established minor field only), communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization/operations research, integrated circuits and systems, microelectromechanical systems/nanotechnology (MEMS/nano), photonics and optoelectronics, plasma electronics, signal processing, solid-state electronics

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, microelectromechanical systems/nanotechnology (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

Bruce G. Willison, Dean

UCLA
F407 Mullin Management Commons
Box 951481
Los Angeles, CA 90095-1481
(310) 825-6121
fax: (310) 206-2002
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 School 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.

John E. Anderson Graduate School of Management students come from diverse professional and educational backgrounds and seek equally diverse personal and professional goals. Whether they pursue the
professional M.B.A., the academic M.S., 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 both an academic (M.S.) and professional (M.B.A.) master's, as well as a 21-month 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. 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 requisites, is limited. The school limits the number of courses taken by undergraduate students to 11.

DEGREES

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

- Master of Business Administration (M.B.A.)
- Master of Science (M.S.)
- Doctor of Philosophy (Ph.D.)

Concurrent Degree Programs

The school offers nine concurrent degree programs:

- Management M.B.A./Computer Science M.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.
- Management M.B.A./Urban Planning M.A.

RESEARCH CENTERS AND PROGRAMS

Interdisciplinary research centers provide valuable resources that support school programs. See http://www.anderson.ucla.edu/x40.xml.

CENTER FOR HEALTH SERVICES MANAGEMENT

The Center for Health Services Management is operated jointly by the Anderson School and the School of Public Health. Organized as a partnership with the health services management community, the center’s activities are designed to be supportive of management practitioners in the health care community. The center offers management education programs uniquely suited to managers and executives from health care organizations. In addition, it conducts research carefully identified to further the practice of management of health service organizations. Programs have included a top management course for Cedars-Sinai Medical Center and a management development program for diagnostic radiologists. See http://www.ph.ucla.edu/hs/hsmgt.html.

CENTER FOR INTERNATIONAL BUSINESS EDUCATION AND RESEARCH

The Center for International Business Education and Research (CIBER) is dedicated to enhancing the teaching and understanding of issues related to the global marketplace. The center actively increases international business research across the campus through the direct funding of faculty research travel, graduate student research assistantships, and academic conferences. See http://www.anderson.ucla.edu/x327.xml.

CENTER FOR MANAGEMENT IN INFORMATION ECONOMY

The Center for Management in Information Economy (CMIE) focuses on current management processes and practices being used in businesses and organizations involved in the creation, management, and delivery of digital information as a key component of their products and services. The center acts as a forum and catalyst to relate the capabilities of the academic community to the needs of the business community. See http://www.anderson.ucla.edu/x54.xml.

HAROLD PRICE CENTER FOR ENTREPRENEURIAL STUDIES

The Harold Price Center for Entrepreneurial Studies provides academic and extracurricular activities that prepare M.B.A. candidates for the challenge of business management in entrepreneurial environments. These efforts include teaching and curriculum development, student activities, and scholarly research. The interdisciplinary curriculum draws on faculty expertise in many areas. See http://www.anderson.ucla.edu/x554.xml.

HUMAN RESOURCES ROUND TABLE

The Human Resources Round Table (HARRT) is affiliated with the Anderson School and the UCLA Institute of Industrial Relations. The program’s mission is to enhance the profession of human resource

**INFORMATION SYSTEMS RESEARCH PROGRAM**

The Information Systems Research Program (ISRP) was established to recognize the importance of maintaining close ties between the activities of practicing professionals and the activities of academics in the information systems area, while at the same time raising money to support education and research activities in the information systems area. The senior managers and technical professionals who belong to the Information Systems Associates participate in a number of activities to facilitate professional interchange and networking, such as the Information Systems Executive Leadership annual award dinner and the annual Information Systems Associates Symposium. See http://www.anderson.ucla.edu/x691.xml.

**LEADERSHIP, EDUCATION, AND DEVELOPMENT PROGRAM**

The Leadership, Education, and Development (LEAD) program sponsors four-week residential summer institutes at outstanding business schools, including the Anderson School, and recruits qualified African American, Hispanic, and Native American students between their junior and senior years of high school. LEAD introduces participants to the world of business, economics, finance, and management through a carefully tailored curriculum involving University faculty, guest lecturers from industry, and corporate field trips.

**OFFICE OF EXECUTIVE EDUCATION PROGRAMS**

Lifelong learning plays a critical role in the success of today's business leaders. The Anderson School's Office of Executive Education Programs 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.uclaexeced.com.

**RICHARD S. ZIMAN CENTER FOR REAL ESTATE**

The mission of the Richard S. Ziman Center for Real Estate is to undertake an aggressive program of research, education, and professional development; the objectives are to (1) advance the quality of real estate research to a level comparable with financial economics, (2) train highly skilled professionals who use advanced scientific tools for designing new products, managing risk, and raising returns to real estate investments, and (3) undertake activities that bridge the gap between real estate research and practice. See http://www.anderson.ucla.edu/x323.xml.

**RIORDAN PROGRAMS**

The Riordan Programs were established by the Riordan Foundation to address the demand for trained managers who can provide vision and leadership in culturally diverse communities. The programs’ success results from the collaborative efforts of Anderson School faculty, students, and alumni, and corporate leaders throughout the community. Together these individuals encourage underrepresented students to pursue higher education in management and to become future leaders in business and society. See http://www.anderson.ucla.edu/riordan.xml.

**UCLA ANDERSON FORECAST**

Using large-scale econometric models, the UCLA Anderson Forecast makes quarterly and long-term forecasts of the national and California economies, with focus on unemployment and employment by three-digit SIC code. Results of the forecasts are announced at conferences attended by members of the media and leaders in business and government. See http://uclaforecast.com.

**SCHOOL OF THE ARTS AND ARCHITECTURE**

Christopher Waterman, Dean

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303 East Melnitz Building
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Los Angeles, CA 90095-1427
(310) 206-6465
fax: (310) 206-8504
http://www.arts.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 provide students with unparalleled opportunities to learn from and interact with faculty members who rank among the most innovative artists, designers, musicians, choreographers, architects, and arts scholars of our time. A balance of practice and theory, built on the academic foundation of the liberal arts, assures the understanding and appreciation of both the interdependence and integration of creativity, performance, and research. In educating the whole person, the school strives to empower and inspire the next generation of citizens to serve as cultural leaders of the twenty-first century.

Also under the School of the Arts and Architecture umbrella is an impressive array of public arts units, including UCLA Live, one of the largest arts presenters in the nation, the Hammer Museum which houses the Grunwald Center for the Graphic Arts, the Fowler Museum of Cultural History, and the renowned Murphy Sculpture Garden. These institu-
A balance of practice and theory, built on the academic foundation of the liberal arts, assures the understanding and appreciation of both the interdependence and integration of creativity, performance, and research.

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 offers an innovative curriculum 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 and Outreach, 303 East Melnitz Building, 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:

Architecture (M.Arch. I, M.Arch. II, M.A., Ph.D.)
Art (B.A., M.A., M.F.A.)
Culture and Performance (M.A., Ph.D.)
Dance (M.F.A.)
Design | Media Arts (B.A., M.A., M.F.A.)
Ethnomusicology (B.A., M.A., C.Phil., Ph.D.)

World Arts and Cultures (B.A.)

New students are not being admitted to the M.A. in Design | Media Arts or the M.A. in Art (critical and curatorial studies specialization) at this time.

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. The annual deadline date for applications is November 30 for admission in the following Fall Quarter. After the UC application has been filed, applicants are sent supplemental application material by regular mail or e-mail.

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 undergraduates 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 the courses for a letter grade.

SCHOOL REQUIREMENTS

The School of the Arts and Architecture has eight requirements that must be satisfied for the award of the degree: unit, scholarship, academic residence, writing, quantitative reasoning, foreign language, upper division nonmajor courses, 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-quarter writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 3 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or better on the SAT II Subject Test in Writing 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) within the first three quarters of enrollment.

**Writing II.** The Writing II requirement is satisfied by selecting a course from a list of courses approved by the Faculty Executive Committee. Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and are 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) within the first six quarters of enrollment.

A Writing II course used to meet this requirement may not be applied toward a foundation area under general education.

**QUANTITATIVE REASONING REQUIREMENT**

In the School of the Arts and Architecture, students must demonstrate basic skills in quantitative reasoning. All courses taken to satisfy the quantitative reasoning requirement must be completed with a grade of Passed or C or better. The quantitative reasoning requirement can be satisfied by achieving an SAT I mathematics score of 600 or better, an SAT II Subject Test in Mathematics score of 550 or better, or by completing one of the following courses: Anthropology M80, Biostatistics 100A, 100B, Geography M40, Mathematics 2 (or any higher numbered course except 38A, 38B, and 38C), Philosophy 31, Political Science 6, 6R, Program in Computing 10A, 10B, 10C, Sociology M18, Statistics 10, 10A, 10H, 11, M12, 13, 14.

**FOREIGN LANGUAGE REQUIREMENT**

Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the Advanced Placement (AP) foreign language test in French, German, or Spanish, or scoring 4 or 5 on the AP foreign language test 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.

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Courses that do not satisfy the University, school, or department requirements are referred to as electives and are used to meet the minimum unit requirement for graduation.
to level three or above at UCLA with a grade of Passed or C or better. The foreign language requirement must be completed within the first six quarters of enrollment.

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

**Upper Division Nonmajor Requirement**

Students are required to complete a minimum of 12 units of upper division nonmajor courses.

**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.

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

**Requirements for Students Who Entered Fall Quarter 2004 and Thereafter**

**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 course taken to meet the Writing II requirement may not also be applied toward a GE requirement.

Students must meet with a counselor in the Student Services Office to determine the applicability of GE Cluster courses toward Writing II or GE requirements.

**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 department 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 students with the perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, the courses provide students with 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 one 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.

Total = 8 units minimum

**Total GE . . . . . . . . . . 8 Courses/38 Units Minimum**

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.
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/GE-ArtsNew04-05.pdf.

Requirements for Students Who Entered Prior to Fall Quarter 2004
For the approved list of courses, see http://www.registrar.ucla.edu/ge/GE-ArtsCon04-05.pdf.

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, 194 Kinross South, 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 Arts and Architecture GE requirements.

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 14 courses (56 units) including at least nine upper division courses (36 units).

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. All courses 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, 194 Kinross South. ☎ 310-206-3564

Double Majors. Students may petition to be reviewed for a double major on an individual basis. It is strongly recommended that students pursuing a double major enroll in 15 to 20 units per term. Con-
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 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.

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 Tests. Credit earned through the College Board Advanced Placement (AP) Tests may be applied toward the general education requirements. Portions of AP Test 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.

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 departmental counselors. For counseling information, contact the Student Services Office, School of the Arts and Architecture, 194 Kinross South. ☎ 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 are summa cum laude, magna cum laude, and 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. 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 194 Kinross South 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://www.gdnet.ucla.edu/publications.html.

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://www.gdnet.ucla.edu/publications.html.

**School of Dentistry**

No-Hee Park, Dean

UCLA
53-038 Dentistry
Box 951762
Los Angeles, CA 90095-1762
(310) 206-6063
fax: (310) 794-7734
http://uclasod.dent.ucla.edu/index.asp

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

School of Dentistry students may undertake programs designed to meet their special needs; 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 Roybal Children's Dental Center, and the Mobile Dental Clinic, the latter in conjunction with the University of Southern California. The graduate programs and resident specialty programs foster new lines of research which 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. 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://www.gdnet.ucla.edu/publications.html.

**Pредental Curriculum**

For details on the three-year predental curriculum, see http://www.career.ucla.edu/gradschool/health/dentistry.asp.
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, anesthesia, orthodontics, pediatric dentistry, periodontics, and removable prosthodontics.

For details on the D.D.S. program and a listing of the courses offered, see http://www.ucladent.ucla.edu/index.asp 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 prosthodontics; a four- or six-year oral and maxillofacial surgery residency training program; a three-year prosthodontics, periodontics, and combined orthodontic/pediatric dentistry program; two-year programs in the specialties of endodontics and orofacial pain and dysfunction; and a 27-month program in orthodontics and pediatric dentistry.

Information on the resident programs can be obtained by writing directly to Resident Programs, School of Dentistry, A0-111 Dentistry, UCLA, Box 951762, Los Angeles, CA 90095-1762.
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, negotiation, business transactions, criminal and civil trial advocacy, community-based lawyering, environmental law, and poverty law practice. 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. Over 400 law firm and agency interviewers from across the nation come to UCLA annually to hire our students. UCLA graduates (more than 12,000) 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 eight 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./Public Policy M.P.P.
- Law J.D./Public Health M.P.H.
- Law J.D./Social Welfare M.S.W.
- Law J.D./Urban Planning M.A.

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

**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 and potential for leadership, language ability, unusual life experiences, and any other factors (except those deemed inadmissible by The Regents or by other applicable law) that indicate the applicant may significantly diversify the student body or make a distinctive contribution to the school or the legal profession.

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.

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 in the *UCLA School of Law Bulletin* or from the School of Law website given at the beginning of this listing.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study section of this catalog.
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. 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 which 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 hours and may not take more than 16 hours each semester. The second- and third-year curriculum is elective, except for a required course in professional responsibility. 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 which 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 requirement which is a requisite for graduation.

MASTER OF LAWS DEGREE

The school offers a graduate law program leading to the Master of Laws (J.D.) degree to outstanding international students interested in pursuing graduate studies. Law school graduates with outstanding records who may be interested in this program should contact Professor Joel Handler, LL.M. Program, School of Law, 1242 Law, UCLA, Box 951476, Los Angeles, CA 90095-1476, for further information.

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). Applications must include or be accompanied by, inter alia, a detailed statement of research purpose and a letter from a UCLA faculty member attesting to the importance of the applicant’s proposed research and agreeing to assume full responsibility for supervising the program of study.

PROGRAMS

CLINICAL PROGRAM

The UCLA School of Law offers one of the finest clinical education programs in the nation. Housed in a technologically sophisticated clinical wing, the program provides extensive and rigorous practical training for student-lawyers interested in litigation and transactional work prior to entry into the legal profession. Through simulated and actual client contact, students learn skills such as interviewing and counseling clients, drafting legal documents, examining and cross-examining witnesses, negotiating commercial agreements and litigation settlements, deposing witnesses, mediating disputes, and arguing before a judge or jury. In addition, students interested in a transactional practice can learn how to finance a start-up company, sell a private company, or cope with a myriad of environmental issues that arise when selling a business.

To give some examples of clinical experience, students in the highly successful Frank G. Wells Environmental Law Clinic work on large and small cases, both federal and state, involving citizen enforcement actions under various environmental statutes, especially actions under the Clean Water Act against polluters of the Santa Monica Bay. Students in Public Policy Advocacy have exposed the substandard conditions of California public elementary, middle, and high schools and researched the legal accountability of enforcing basic standards in matters such as physi-
Throughout American history, race has profoundly affected the lives of individuals, the growth of social institutions, the substance of culture, and the 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. The specialization in Critical Race Studies offers second- and third-year law students a coherent and rigorous program within which to meet that challenge.

The Critical Race Studies specialization 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 students’ mastery of five areas: history (centering on the Constitution but focusing as well on a variety of other legal documents and experiences), theory (critical race theory, jurisprudence, and theoretical advances outside the legal academy), 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), doctrine (case and statutory law and its interpretation), and practice (including legal practice, community service, and lawyers’ use of social science techniques). There is also a writing requirement, which students may complete either working independently with a specialization faculty member or via an approved seminar. Beyond the course requirements, students have the opportunity to engage in a wide range of related extracurricular activities.

**Extern Program**

The school has one of the most extensive, best established, and most diversified student extern programs in the nation. Under supervision of experienced public interest and governmental lawyers and federal judges, students perform legal work in government offices, public interest law firms, nonprofit agencies, and the chambers of federal judges.

In the semester-long program, students develop legal skills in supervised settings and acquire perspectives about the lawyering process or the judicial decision-making process. They also participate in a faculty-led, law school-based seminar in which they reflect systematically in a classroom setting on their experiences in the placement. Students regularly report that the program is an excellent educational experience.

**Public Interest Law and Policy Specialization**

The School of Law has long attracted students interested in public interest and policy issues. The school has one of the strongest public interest law faculties in the country and sits next to the School of Public
NURSING SCHOOL OF

The School of Nursing is consistently ranked high for its teaching and research programs. The innovative curriculum is responsive to national needs in health care and the diversity of the patient population.

SCHOOL OF NURSING

Marie J. Cowan, Dean

UCLA
2-200 Factor Building
Box 951702
Los Angeles, CA 90095-1702
(310) 825-7181
fax: (310) 267-0330
http://www.nursing.ucla.edu

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. Education at the master’s level provides advanced practice options in primary care, acute care, and nursing administration.

The majority of graduate students acquire expertise as nurse practitioners, with several options for clinical preparation in primary or acute care. Options for advanced practice as clinical nurse specialists are also available. The doctoral program prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

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

The School of Nursing gives direction to interested potential applicants through monthly open counseling sessions. Students interested in the academic programs offered are urged to attend a counseling session or request a copy of the Announcement of the UCLA School of Nursing by writing to the Student Affairs Office, School of Nursing, 2-200 Factor Building, UCLA, Box 951702, Los Angeles, CA 90095-1702, or calling (310) 825-7181 Tuesday through Thursday.

HISTORY AND ACCREDITATION

In 1949 The Regents of the University authorized the School of Nursing as one of the professional schools of the UCLA Center for the Health Sciences. This action paved the way for the development of an undergraduate basic program in nursing leading to the Bachelor of Science (B.S.) degree and made possible the establishment of a graduate program leading to the Master of Science (M.S.) degree. In 1966 the Master of Nursing (M.N.) degree was established as an alternate option to the M.S. degree. The M.S. degree program was discontinued in 1969. The Regents approved the Doctor of Nursing Science (D.N.Sc.) degree program in 1986, and in Fall Quarter 1987 the first doctoral students were admitted. In 1996 the Office of the President and The Regents approved the change in the master’s degree designation from M.N. to Master of Science in Nursing (M.S.N.); the change in doctoral degree designation from D.N.Sc. to Ph.D. was approved in 1995.
The B.S. program curriculum was revised in 1997 to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. The first group of students began their studies in the summer of 1997.

The School of Nursing master’s nurse practitioner program has Board of Registered Nursing approval, as did the nurse-midwifery program prior to being discontinued in fall 2004. In 2001, the Commission on Collegiate Nursing Education granted accreditation to the baccalaureate and master’s degree programs for a term of 10 years.

DEGREES

The school offers the following degrees:

Bachelor of Science (B.S.)
Master of Science in Nursing (M.S.N.)
Doctor of Philosophy (Ph.D.)

Concurrent Degree Program

The school offers one concurrent degree program:
Nursing M.S.N./Management M.B.A.

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. Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession and the 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 include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced practice level, nursing involves comprehensive primary health care 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. Guided by ethical standards that consider the perspectives of the client, the health care provider, and the larger society, nursing has a social mission that encompasses the right and responsibility to provide health care to all its clients regardless of their age, gender, sexual orientation, race or ethnicity, religion, culture, socioeconomic, or health status.

Persons who receive client-centered nursing care are complex individuals who exist in relationship to others in their family and community. This complexity of person involves biological, behavioral, emotional, sociocultural, and spiritual dimensions. Each individual reflects a unique combination of these dimensions that interact dynamically with the environment. The clients of nursing are autonomous decision makers who have certain values and knowledge about themselves that not only are relevant but essential to successful health care outcomes. As a result, persons have a right and a responsibility to participate collaboratively with the nurse and other health professionals in their care.

Successful nursing students are active learners who bring unique life experiences to the professional practice of nursing. Students at all levels learn relevant theory, acquire practice skills, and are socialized into the profession of nursing. Increasing levels of complexity and sophistication of learning and socialization are expected of students in the different programs.

Whether at the beginning practice, advanced practice, or scholar level, nursing students learn to apply knowledge, skills, and professional attitudes in their practice that may include educative, administrative, and research arenas. While students have the right and responsibility to participate in their own learning, faculty members have the right and responsibility to structure the teaching/learning environment to facilitate learning. Individual academic counseling and a variety of one-on-one, small-group, and interactive learning formats assist students to meet program and individual learning goals.

SCHOOL OF PUBLIC AFFAIRS

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The School of Public Affairs educates at the highest level of excellence the next generation of practitioners and academic researchers in the “problem-solving professions”—public policy, social welfare, and urban planning. The school provides relevant lifelong education in the form of executive education, career training, technical assistance, and public pedagogy. The school also produces outstanding basic and applied policy and practice research and provides balanced and timely policy advice to policymakers in the public, private, and nonprofit sectors.

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 an undergraduate Public Affairs minor:

- Public Policy (M.P.P.)
- Social Welfare (M.S.W., Ph.D.)
- Urban Planning (M.A., Ph.D.)

Concurrent Degree Programs

The school offers nine 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./Social Welfare M.S.W.
- Social Welfare M.S.W./Asian American Studies M.A.
- Social Welfare M.S.W./Law J.D.
- Urban Planning M.A./Architecture M.Arch. I.
- Urban Planning M.A./Latin American Studies M.A.
- Urban Planning M.A./Law J.D.
- Urban Planning M.A./Management M.B.A.

Obtain brochures about the school’s programs from the department offices, 3357 Public Policy Building. The school also offers a wide array of undergraduate courses in public policy, social welfare, and urban planning. Enrollment in these courses is open to all undergraduate students.

ADMISSION

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree or professional title from an international institution, each department in the school has limitations and additional requirements. Individuals interested in concurrent degrees must be admitted to both programs. Detailed information can be found in Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

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://www.gdnet.ucla.edu/publications.html.

RESEARCH CENTERS

The school houses a number of research centers where faculty from across the campus pursue issues of mutual interest. In addition to their focus on practical policy problems, the research centers also provide opportunities for student financial aid in the form of research assistant positions, grants, and fellowships.

CENTER FOR CIVIL SOCIETY

The Center for Civil Society (CCS) is the focal point for the school’s programs and activities in nonprofit leadership and management, community organizations and advocacy, international nongovernmental organizations, and philanthropy. The center coordinates teaching of nonprofit and civil society aspects, conducts research, convenes meetings and seminars, offers executive education, and contributes to a policy dialogue about the current and future role of nonprofit organizations, philanthropy, and civil society. See http://www.spa.ucla.edu/ccs/.

CENTER FOR GLOBALIZATION AND POLICY RESEARCH

The Center for Globalization and Policy Research acts as a focal point in the School of Public Affairs and in the UCLA community at large for critical investigations of global policy issues. The center serves as a clearinghouse for both individual and joint research projects and hosts public lectures and occasional conferences on globalization and its effects. The center’s work focuses on five main areas of social inquiry and policy-making, including the organization and structure of economic systems; processes of migration and social mobility; systems of cultural expression and conflict; the natural and built environments; and structures of governance. See http://www.spa.ucla.edu/cgpr/.

CENTER FOR HEALTH POLICY RESEARCH

Jointly sponsored by the School of Public Affairs and the School of Public Health, the Center for Health Policy Research conducts research on the national, state, and local levels, provides testimony, and conducts seminars and forums for government leaders and policymakers both public and private. Research activities emphasize a community- and population-based perspective to improve health outcomes. Current research areas and programs touch
on such issues as access to health services, managed care, health care reform, women's health, disease prevention policy, cost issues, and the health policy-making process itself. See http://www.healthpolicy.ucla.edu.

CENTER FOR INTERNATIONAL SCIENCE, TECHNOLOGY, AND CULTURAL POLICY
The Center for International Science, Technology, and Cultural Policy facilitates interdisciplinary research on the influences of government policy on the development of the arts and sciences and their commercial and noncommercial expressions, including technology, the media, fashion/design, and other uses of the nation's knowledge capital. The center's mission is to improve the basis for policy decisions by conducting and supporting solid empirical research designed to examine alternative policy models, including the comparison of systems across countries as well as across substantive areas within the same country. Rigorous policy research on these topics requires discipline-based, but also interdisciplinary, research teams that are informed by social science theory. The center promotes dissemination of policy research to governments seeking to make more empirically informed policy decisions. See http://www.spa.ucla.edu/cistcp/.

CENTER FOR POLICY RESEARCH ON AGING
The Center for Policy Research on Aging (CPRA) was formed to address the significant issues of an aging society through policy analysis, dissemination of information, and technical assistance to the public and private sectors. The demographic challenges of a nation growing older and living longer force us to confront the roles of government and the private sector in serving the increasing number of elderly and their families. The center's mission is to conduct research, inform policymakers, link communities to local, state, and federal governments, and foster collaboration among UCLA faculty members. See http://www.spa.ucla.edu/cpra/.

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://www.its.ucla.edu.

RALPH AND GOLDY LEWIS CENTER FOR REGIONAL POLICY STUDIES
The Lewis Center for Regional Policy Studies was established in 1990 with a $5-million endowment from Ralph and Goldy Lewis to promote the multidisciplinary study, understanding, and solution of regional policy issues, with special reference to Southern California. Research projects include topics such as welfare reform, immigration, the environment, health insurance, labor and employment, and transportation. See http://lewis.spa.ucla.edu.

UCLA POLICY FORUM
The UCLA Policy Forum is an applied research and development center and one of the primary outreach arms of the School of Public Affairs. Established in 1995, the forum addresses a variety of strategic policy needs by furthering the professional development of those working in the public interest, supporting efforts to access and apply research, developing innovative information technology tools to deal with policy challenges, and building new and mutually beneficial relationships between the University, policymakers, and community leaders. Forum programs link academic research with the experience and practical knowledge of policy practitioners and community leaders, with focus on topics such as housing, community and economic development, health care, social services, and disability issues. To accomplish this mission, the forum offers training programs to develop community leadership and facilitate professional development, technical assistance to community-based organizations and government agencies, and strategic policy conferences that bring together individuals capable of influencing policy-making. See http://www.spa.ucla.edu/policyforum/.

SCHOOL OF PUBLIC HEALTH
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It is a great time to study public health. Federal investment in public health has increased, and a strong global economy has brought additional resources and attention to the field. Furthermore, public and media interest in public health topics have created many opportunities for the field and UCLA graduates.

Public health strives to create healthier communities. Where medicine treats the individual, public health looks to the larger community. Those work-
ing in public health focus on efforts to assess the health of people and their environments and develop policies and programs to protect people and help them lead healthier lives.

To achieve these goals, public health crosses many of the traditional boundaries of academic disciplines, drawing from medicine, law, public policy, economics, and biology to name a few. Making water safe to drink and air safe to breathe, controlling toxic waste, halting the spread of infectious disease, promoting the advantages of healthy lifestyles, and minimizing violence in our communities are all examples of public health in action. Increasingly public health is called on to help determine which clinical approaches to an individual health problem are best (outcomes research), and to assess and identify disparities in access to health care, quality of health care, and health status.

The UCLA School of Public Health is among the top public health schools in the country. Offering superior public health training and real-world experience, the school’s classrooms and laboratories are under the same roof as the world-renowned UCLA hospital and its medical, dental, and nursing schools. In addition, the proximity of the University’s science facilities and schools of engineering, law, management, and public affairs facilitate transdisciplinary collaboration.

School of Public Health students can look forward to working with acclaimed public health experts and innovators. Of the school’s 200 faculty members, six are members of the prestigious Institute of Medicine, three are past presidents of the American Public Health Association, and two are former presidents of the International Epidemiological Association.

The school’s 700 students are not only among the most talented and promising in the nation, but the most diverse of all schools of public health in the country. UCLA School of Public Health graduates can be found at the forefront of all major public health efforts.

The school is enriched by its Los Angeles locale, where diverse cultures, industries, environmental situations, and urban issues provide unparalleled opportunities for research, teaching, and service. Its location provides students and faculty members with a unique opportunity to be involved with cutting-edge health care issues as many of the health system changes currently sweeping the country have origins in Southern California.

DEPARTMENTS

The School of Public Health 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 Services deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers interdepartmental degree programs in environmental science and engineering and in molecular toxicology.

See the Curricula and Courses section for further information on each department.

DEGREES AND PROGRAMS

The school offers the following degrees:

- Biostatistics (M.S., Ph.D.)
- Environmental Health Sciences (M.S., Ph.D.)
- Environmental Science and Engineering (D.Env.)
- Epidemiology (M.S., Ph.D.)
- Health Services (M.S., Ph.D.)
- Molecular Toxicology (Ph.D.)
- Preventive Medicine and Public Health (M.S.)
- Public Health (M.P.H., M.S., Dr.P.H., Ph.D.)

The M.S. and Ph.D. degrees in Public Health are offered through the Department of Community Health Sciences. 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 three articulated degree programs:

- Public Health M.P.H./African Studies M.A.
- Public Health M.P.H./Latin American Studies M.A.
- Public Health M.P.H./Medicine M.D.

Concurrent Degree Programs

The school offers four concurrent degree programs:

- 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.

Preventive Medicine Residency Program

The School of Public Health offers an accredited residency in public health and general preventive medicine, a specialty recognized by the American Board of Preventive Medicine. It is designed to prepare physicians for leadership roles in preventive medicine and public health practice, research, and teaching. Residents participating in the academic phase...
must enroll in one of the departments within the School of Public Health and fulfill all of the requirements for the M.P.H. degree. During the practicum phase, residents obtain practical experience in preventive medicine supervised by onsite preceptors and the residency program director. Application is made both to the department and the residency program simultaneously.

Qualified physicians interested in learning more about the program should contact the School of Public Health Student Services Office, or visit http://www.ph.ucla.edu/pmr/.

**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://www.gdnet.ucla.edu/gasaa/admissions/admisinfo.html.

Departments in the school set additional admission requirements. See http://www.ph.ucla.edu/app_checklist.html for further information.

**DEGREE REQUIREMENTS**

Specific degree requirements vary according to the department and program. Refer to Program Requirements for UCLA Graduate Degrees at http://www.gdnet.ucla.edu/publications.html.

**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 interdisciplinary centers sponsored by or associated with the UCLA School of Public Health.

**CENTER FOR ADOLESCENT HEALTH PROMOTION**

The UCLA/RAND Center for Adolescent Health Promotion 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 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 ethnically and economically diverse communities in Los Angeles County to identify opportunities for it 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://www.rand.org/health/adol.html.

**CENTER FOR HEALTH POLICY RESEARCH**

The 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 School of Public Health and the 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.

**CENTER FOR HEALTH PROMOTION AND DISEASE PREVENTION**

Established in July 1991, the Center for Health Promotion and Disease Prevention is a joint endeavor of the School of Public Health and the David Geffen School of Medicine. Faculty members within the Geffen School of Medicine are involved in clinical activities and teaching, especially in the course on doctoring. Within the School of Public Health, they are engaged in teaching and research activities that are wide-ranging and involve studies on the quality of life for men with prostate cancer, manpower requirements for the care of those with HIV infec-
tions, community interventions for asthma control in Latino children, and systems for smoking cessation used by physicians caring for Latino patients. The center is also responsible for overseeing the Preventive Medicine Residency Program. See http://www.ph.ucla.edu/pmr/research.htm.

**CENTER FOR HEALTH SERVICES MANAGEMENT**
The UCLA Center for Health Services Management was established in 1996 as UCLA’s response to the increasingly challenging environment for health care management in California. It is designed to bring together the best in university-based research and education with the best and most current in management practices in the California health care community, for the mutual benefit of both. It is the vehicle for improved training and education of managers and executives, both in the degree and certificate programs at the University as well as the management development programs within health care organizations themselves. See http://www.ph.ucla.edu/hs/hsmgt.html.

In the fall of 1999 the Healthcare Collaborative at UCLA was established under the auspices of the center. The collaborative brings together students, alumni, faculty, and staff of the School of Public Health, the Anderson Graduate School of Management, and the David Geffen School of Medicine with members of the Southern California health care community. ☎ 310-206-3435

**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) public policy research and analysis, and (5) technical assistance and support to community providers, agencies, and policymakers. See http://healthychild.ucla.edu.

**CENTER FOR HUMAN NUTRITION**
Established in 1996, the Center for Human Nutrition is a joint endeavor of the School of Public Health and the David Geffen School of Medicine. Participating faculty members have their academic appointments in either or both schools. The center brings together faculty members, postdoctoral research fellows, graduate students, and medical students to focus on the roles of nutrition and food in human health and disease and is closely affiliated with the UCLA Clinical Nutrition Research Unit, which focuses on nutrition and cancer prevention.

Programs include basic biological research; nutrition education for various constituencies, including medical, graduate, undergraduate, and postgraduate students; participation in multicenter clinical trials for primary and secondary disease prevention through dietary intervention; and public health and international nutrition. The public health and international aspects of the programs include focus on nutrition surveillance of populations, nutritional status and food supply in developing and transitional countries, and nutrition and food policy. ☎ 310-206-1987

**CENTER FOR OCCUPATIONAL AND ENVIRONMENTAL HEALTH**
The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1977, 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 state-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 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://www.coeh.ucla.edu.

**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 dialogue 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 multi-
disciplinary 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 has recently been named as one of 15 Academic Centers for Public Health Preparedness 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.ph.ucla.edu.

**DIVISION OF CANCER PREVENTION AND CONTROL CENTER RESEARCH**

The Division of Cancer Prevention and Control Center Research (DCPCR) is a joint program of the School of Public Health and the David Geffen School of Medicine’s Jonsson Comprehensive Cancer Center. Since its inception in 1976, the DCPCR has been a recognized center of cancer prevention and control research at UCLA, throughout the Los Angeles community, and nationally. The DCPCR conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program (http://www.ph.ucla.edu/hs/healthy.html) and the Patients and Survivors Program (http://www.ph.ucla.edu/hs/patients.html).

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, 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. See http://www.ph.ucla.edu/hs/prev_control.html.

**SOUTHERN CALIFORNIA ENVIRONMENTAL HEALTH SCIENCES CENTER**

The Southern California Environmental Health Sciences Center (SCEHSC) was established through funding from the National Institute of Environmental Health Sciences (NIEHS). Researchers and professionals from UCLA and the University of Southern California have collaborated to create an interdisciplinary approach to the study and advancement of research in environmental health. As one of the newest of 19 centers across the nation, the SCEHSC primarily focuses on using epidemiologic methods to study effects of the environment on human health, especially with regard to the multiethnic populations of California and the Pacific Rim.

The SCEHSC is organized into an administrative core, five research cores, and four service cores, with the overall goal to understand how environmental factors affect health and how personal factors modify response. Research cores include exposure assessment, respiratory effects, childhood cancer, adult cancer, and statistical methods, while the service cores include analytical chemistry, molecular biology, biological sample processing, and biostatistics. See http://hydra.usc.edu/scehsc/default.asp.

**SOUTHERN CALIFORNIA INJURY PREVENTION RESEARCH CENTER**

Injuries kill more people under the age of 45 than all other causes of death combined. The Southern California Injury Prevention Research Center (SCIPRC) is one of 10 centers in the U.S. that focus on the problem of intentional (homicide, suicide, abuse) and unintentional (motor vehicle crash, drowning, falls) injuries through three phases of injury control—prevention, acute care, and rehabilitation—addressed through its research, training, and community service components.

The theme of SCIPRC is to research intentional and unintentional injuries among disadvantaged persons and other underserved populations. Highly focused, multidisciplinary community-based research projects are undertaken in collaboration with professionals from public health, medicine, the social sciences, law, and biomechanics affiliated with UCLA, the University of Southern California, Harbor-UCLA Medical Center, Sharp Memorial Hospital, Rancho Los Amigos Medical Center, California State University (Los Angeles), the Los Angeles County Department of Health Services, the Los Angeles County Department of the Coroner, the California State Department of Health Services, the California Office of Traffic Safety, Cal/OSHA, and the California State Coroners’ Association. See http://www.ph.ucla.edu/sciprc/.

**SOUTHERN CALIFORNIA NIOSH EDUCATION AND RESEARCH CENTER**

The Southern California NIOSH Education and Research Center is one of 16 multidisciplinary centers in the U.S. supported by the National Institute for Occupational Safety and Health for education and research in the field of occupational health. The center is administratively housed in the Department of Environmental Health Sciences and supports academic programs in occupational medicine at UCLA and UCI, occupational health nursing, and industrial hygiene at UCLA.

For these programs the center provides student support (fees and stipends for U.S. citizens or permanent residents) and infrastructure support. The center supports approximately 40 graduate students in the field of occupational health. It also supports a continuing education and outreach program, hazardous substances training for hazardous waste workers and industrial hygiene students, and a Pilot
THEATER, FILM, AND TELEVISION

The continuing education program is primarily for professionals in the occupational health field and covers many topics in industrial hygiene, occupational health nursing, occupational medicine, occupational safety, ergonomics, and environmental areas. See http://www.ph.ucla.edu/erc/.

SOUTHERN CALIFORNIA PARTICLE CENTER AND SUPERSITE

The Southern California Particle Center and Supersite (SCPCS) was established in 1999 through funding from the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) to study the nature and health effects of airborne particulate matter (PM). The SCPCS is one of five particulate research centers awarded grants as part of an EPA effort to learn more about the health problems caused by exposure to particle pollution. Based in the School of Public Health and the Institute of the Environment, the center includes faculty members from throughout UCLA, as well as researchers from the University of Southern California, University of California campuses at Riverside and Irvine, California Institute of Technology, and Rancho Los Amigos Medical Center.

The major objective of the SCPCS is to identify and conduct the highest priority research for PM to ensure protection of the public health. The center seeks to better determine the sources of particulate pollution, probe the chemical nature of particles, and investigate the health effects of breathing particulates. The SCPCS has created a structure to ensure integration of research and to create a research dynamic where findings facilitate new research that deepens understanding of the mechanisms of particle-related toxicity. See http://www.scpcs.ucla.edu.

SCHOOL OF THEATER, FILM, AND TELEVISION

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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 on a 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 UCLA Live, 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 350 undergraduate and 125 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. 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, directing, playwriting, design, technology and production management, and the producers program.
The Department of Film, Television, and Digital Media includes both production and critical studies programs, with approximately 265 graduate and 60 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 critical 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:

Film and Television (B.A., M.A., M.F.A., C.Phil., Ph.D.)
Moving Image Archive Studies (M.A.)
Theater (B.A., M.A., M.F.A., 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 undergraduates 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 the courses for a letter grade.

SCHOOL REQUIREMENTS

The School of Theater, Film, and Television has seven general 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-quarter writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive grades of C or better (C– grades are not acceptable).

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

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Tests in English or a combination of a score of 720 or better on the SAT II Subject Test in Writing 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) within the first six quarters of enrollment.

**Writing II.** The Writing II requirement is satisfied by selecting a course from a list of courses approved by the Faculty Executive Committee. Writing II courses are listed in the Schedule of Classes at http://www.registrar.ucla.edu/soc/writing.htm and are 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) within the first six quarters of enrollment.

A Writing II course used to meet this requirement may not be applied toward a foundation area under general education or toward the literature requirement.

**Foreign Language Requirement**

Students may meet the foreign language requirement by (1) scoring 3, 4, or 5 on the Advanced Placement (AP) foreign language test in French, German, or Spanish, or scoring 4 or 5 on the AP foreign language test 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.

**Literature Requirement**

Three courses (12 units minimum) in literature are required, at least one of which must be upper division. Any literature course taken in the original language can fulfill this requirement. A list of courses that satisfy this 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 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.

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 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.

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

Total = 25 units minimum

Foundations of Society and Culture. Three 5-unit courses, one from each subgroup:

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

Total = 15 units minimum

Foundations of Scientific Inquiry. Two courses (8 units minimum), one from each subgroup:

- Life Sciences
- Physical Sciences

Total GE = 10 Courses/48 Units Minimum

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.

Requirements for Students Who Entered Fall Quarter 2004 and Thereafter

Foundations of Society and Culture. 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. 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/GE-TFTVNew 04-05.pdf.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses or who change their major from another UCLA school or College and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to Director of Student Services, School of Theater, Film, and
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. 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. The Theater major includes both lower and upper division courses. Those listed under Preparation for the Major (lower division) must be completed before upper division major work is undertaken. The Film and Television major requires upper division work only.

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. All courses 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.

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 Tests.** Credit earned through the College Board Advanced Placement (AP) Tests 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.

**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.

**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.

**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 3.899; magna cum laude, 3.834; cum laude, 3.783. 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, the requirements in preparation for the major, and eligibility to participate in the school 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. Contact the Student Services Office in 103 East Melnitz Building for details.

**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://www.gdnet.ucla.edu/publications.html.

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://www.gdnet.ucla.edu/publications.html.
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 in 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://www.gdnet.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 field or two years of college work. With approval of the major department, graduate students may take 100-series courses toward satisfaction of master's degree requirements.

Undergraduate Seminars and Tutorials
Fiat Lux freshman seminars (numbered 19) are taught by faculty in areas of their expertise. 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 tutorial courses (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 departmental chair.

Note: Courses numbered 19, 89, 89HC, 99, 189, and 189HC are not listed in the print catalog. For course descriptions, see online catalog updates at http://www.registrar.ucla.edu/catalog/updates/.

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 which 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 undergraduates. 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 Studies
Interdepartmental Program
College of Letters and Science

UCLA
10357 Bunche Hall
Box 951487
Los Angeles, CA 90095-1487
(310) 825-5187, Undergraduate Office
(310) 206-6571, Graduate Office
fax: (310) 206-6859
e-mail: jdp@sinternational.ucla.edu
http://www.international.ucla.edu/jdp/
africanstudies/

Andrew Apter, Ph.D., Chair

Faculty Advisory Committee
Richard L. Abel, LL.B., Ph.D. (Law)
Andrew Apter, Ph.D. (Anthropology, History)
Donald J. Cosentino, Ph.D. (World Arts and Cultures)
Jacqueline C. DiDio, Ph.D. (Ethnomusicology)
Teshome H. Gabriel, Ph.D. (Comparative Literature, Film, Television, and Digital Media)
Sondra Hale, Ph.D. (Anthropology, Women’s Studies)
Thomas J. Hinnebusch, Ph.D. (Linguistics)
Ghislaine E. Lydon, Ph.D., (History)
Steven D. Nelson, Ph.D. (Art History)
Charlotte G. Neumann, M.D. (Community Health Sciences)
Allen F. Roberts, Ph.D. (French and Francophone Studies, World Arts and Cultures) ex officio
Richard L. Sklar, Ph.D., Emeritus (Political Science)
Brenda Stevenson, Ph.D. (History)
Dominic R. Thomas, Ph.D. (Comparative Literature, French and Francophone Studies)

Scope and Objectives
The basic objective of the African Studies Program is an intellectual one — to provide interested students with the opportunity to engage in intensive study and research on Africa on an interdisciplinary basis. The program offers high quality African area courses in a wide range of fields, including the social sciences, humanities, and professional fields. The Master of Arts is not a professional degree, but students are encouraged to enroll in courses in several professional schools on campus. An articulated degree program is also offered.

Academic flexibility draws many students to the program. Because there are more than 40 active faculty members on campus with African interest and experience in many disciplines, students have multiple options to design individualized programs.

According to a recent survey, 45 percent of the program’s graduates are continuing study at the postgraduate level, 25 percent are employed in higher education, and 30 percent work with international or foreign organizations in 20 countries.

The program also offers the undergraduate African Studies minor that is designed primarily for students who (1) want to learn more about Africa, (2) plan to live and work in Africa or who are interested in government and public service careers involving African affairs, and/or (3) plan to pursue graduate work related to Africa and international studies.

Undergraduate Study
African Studies Minor
The African Studies minor can be taken jointly only with work toward a bachelor’s degree, normally in combination with one of the following fields: Afro-American studies, anthropology, art history, comparative literature, English, ethnomusicology, film and television, French, geography, Germanic languages, history, linguistics, Near Eastern languages and cultures, political science, theater, or world arts and cultures. The faculty adviser certifies completion of the program.

To enter the minor, students must have an overall grade-point average of 2.0 or better and have completed 45 units and a three-term sequence of an African language prior to or concurrent with coursework in the minor. Languages may include Hausa, Swahili, Wolof, Zulu, and Afrikaans or, by petition to the academic counselor, another African language. Students must file a petition and meet with the academic counselor, 10357 Bunche Hall, (310) 206-2806.

Required Lower Division Courses (8 to 9 units): History M10A, 10B (or 10BH or 10BW).

Required Upper Division Courses (20 to 25 units): Three courses selected from a list of designated core courses that offer exclusively African content and two courses from either the core list and/or an expanded list that includes courses with African content of at least 50 percent (consult the faculty adviser for recommended African-related courses). Students may petition to apply other topical courses which may be applied toward the M.A. degree. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma. For more information, contact the Academic Counselor, 10357 Bunche Hall (310-206-2806) or Professor Andrew Apter, History, 5369 Bunche Hall (310-794-9547).

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdn.et.ucla.edu. 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. An articulated degree program (African Studies M.A./Public Health M.P.H.) is also offered.

African Studies
Graduate Courses

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.

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 the University. 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.

598. Research for and Preparation of M.A. Thesis. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student intends to complete M.A. thesis. May not be applied toward minimum graduate course requirement. S/U grading.

Course List
African Studies
All courses are not offered every academic year. Students should verify courses with the respective departments.

Courses with asterisks are special courses which may be applied toward the M.A. degree requirements with prior approval of the graduate adviser. These courses either do not exclusively focus on Africa or focus on Africa only in certain years.

African Languages (Linguistics)
1A-1B-1C. Elementary Swahili
2A-2B-2C. Intermediate Swahili
7A-7B-7C. Elementary Zulu
8A-8B-8C. Intermediate Zulu
11A-11B-11C. Elementary Yoruba
12A-12B-12C. Intermediate Yoruba
15. Intensive Elementary Swahili
31A-31B-31C. Elementary Bambara
32A-32B-32C. Intermediate Bambara
41A-41B-41C. Elementary Hausa
42A-42B-42C. Intermediate Hausa
61A-61B-61C. Elementary Wolof
62A-62B-62C. Intermediate Wolof
97. Variable Topics in Elementary and Intermediate Studies in African Languages
103A-103B-103C. Advanced Swahili
Afrikaans (Germanic Languages)
40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Preapartheid to Postapartheid Era, in English Translation

105A. Elementary Afrikaans
105B. Intermediate Afrikaans
135. Introduction to Afrikaans Literature
199. Special Studies in Afrikaans

Afro-American Studies
*M102. Culture, Media, and Los Angeles

Anthropology
*112. Old Stone Age Archaeology
*M115A-M115B. Historical Archaeology
*121A. Primate Fossil Record
*121B. Australopithcines
*121C. Evolution of Genus Homo
*133R. Aesthetic Systems
*150. Study of Social Systems
*M154P. Gender Systems: North America
*M154Q. Gender Systems: Global
*156. Comparative Religion
*158. Hunting and Gathering Societies
*161. Development Anthropology
*M168. Culture, Illness, and Healing
171. Sub-Saharan Africa
*212P. Selected Topics in Hunter/Gatherer Archaeology
*230Q. Theories of Culture
*250. Selected Topics in Social Anthropology
*252P. Comparative Systems of Social Inequality
*254. Kinship
*255. Comparative Political Institutions
271. Contemporary Problems in Africa

Applied Linguistics and Teaching English as a Second Language
C112. Reading for Second/Foreign Language Education

Art History
*55A. Introduction to Arts of Africa
*101A. Egyptian Art and Archaeology
*101B. Egyptian Art and Archaeology of the Middle and New Kingdoms
118C. Arts of Sub-Saharan Africa
*201. Topics in Historiography of Art History
*C203A-C203B. Museum Studies
219C. African Art
*220. Oceanic, Pre-Columbian, African, and Native North American Art

Berber (Near Eastern Languages)
*101A-101B-101C. Elementary Berber
*102A-102B-102C. Advanced Berber
*130. The Berbers
*199. Special Studies in Berber Languages

Community Health Sciences
*200. Global Health Problems
*231. Maternal and Child Nutrition
*233. Hunger and Food Insecurity as Public Health Issues
*246. Women's Roles and Family Health
*M251. Human Resources and Economic Development
*M294. Social and Behavioral Factors of HIV/AIDS: Global Perspective

Economics
*110. Economic Problems of Underdeveloped Countries
*111. Theories of Economic Growth and Development
*112. Policies for Economic Development
*120. International Economics
*121. International Trade Theory
*122. International Finance
*281A. International Trade Theory
*281B. International Finance
*281C. International Economics
*282A-282Z. Topics in International Economics
*286A. Economic Development
*286B. Cost-Benefit Analysis of Development Projects
*287A-287Z. Topics in Development Economics

Education
*C203. Educational Anthropology
*204B. Introduction to Comparative Education
*204C. Education and National Development
*204D. Minority Education in Cross-Cultural Perspective
*204E. International Efforts in Education
*238. Cross-National Analysis of Higher Education
*252B. Educational Enterprise
*253A. Seminar: Current Problems in Comparative Education
*253B. Seminar: African Education
*253F. Seminar: Education in Revolutionary Societies

English
*114. World Literatures in English

Epidemiology
*290. Seminar: Epidemiology — Infectious and Tropical Disease
*415. Epidemiology for Developing Countries
*M418. Rapid Epidemiologic Surveys in Developing Countries

Ethnomusicology
26B. Musical Cultures of the World: Africa and Near East
91E. Music and Dance of Ghana
CM110A-CM110B. African American Musical Heritage
C136A-C136B. Music of Africa
*201. History of Ethnomusicology
*237. Seminar: African Music
*250. Seminar: Ethnomusicology

Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film
*108. History of Documentary Film
*112. Film and Social Change
*218. Seminar: Culture, Media, and Society
*219. Seminar: Film and Society
*221. Seminar: Film Authorship
*276. Seminar: Non-Western Films

French (French and Francophone Studies)
121. Francophone Literatures and Cultures

Geography
*121. Conservation of Resources: Underdeveloped World
122. Wildlife Conservation in Eastern and Southern Africa
*M128. Global Environment and Development: Problems and Issues
*133. Cultural Geography of Modern World
135. African Ecology and Development
*140. Political Geography
*M229. Resource-Based Development
*232. Advanced Cultural Geography
*233. Seminar: Cultural Geography
*234. Environment and Subsistence in Indigenous Cultures
*240. Advanced Political Geography: Geopolitics
*241. Seminar: Political Geography
*242. Advanced Population Geography

Health Services
*240. Health Care Issues in International Perspective

History
M10A-M10B. History of Africa
88. Sophomore Seminars: History
*M102A-M102B. Historical Archaeology
108A. History of North Africa from Islamic Conquest
*M1508-M150C. Introduction to Afro-American History
M164A. Topics in African History: Prehistoric Africa — Technological and Cultural Traditions
164B. Topics in African History: Africa and Slave Trade
164C. Topics in African History: Africa in Age of Imperialism
164E. Topics in African History: Africa from 1945 to the Present
166A-166B. History of West Africa
166C. Social and Economic History of West Africa since 1600
167A. History of Northeast Africa
167B. History of East Africa
167C. History of Central Africa
168A-168B. History of Southern Africa
200N. Advanced Historiography: Africa
201N. Topics in History: Africa
275A-275B-275C. Colloquia: African History

Political Science
133. International Relations of Sub-Saharan Africa
*139. Special Studies in International Relations
151A-151B-151C. African Politics
*167A. Ideology and Development in World Politics
*167B. Comparative Development and Administration
*168. Comparative Political Analysis
*169. Special Studies in Comparative Politics
191D. Variable Topics Seminar for Majors: South African Politics
241. African Politics
*251. Political Economy of Economic Reform
*255. Seminar: Political Change

Theater
102E. Theater of Non-European World
202P. Seminar: Traditions of African Theater

Urban Planning
*234A. Development Theory
*234B. Rural Development Issues
*M234C. Resource-Based Development
*235A-235B. Urbanization in Developing World I, II
*239. Special Topics in Regional and International Development
AFRO-AMERICAN STUDIES

Interdepartmental Program
College of Letters and Science

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Richard A. Varlentine, Ph.D. (English)

Scope and Objectives

The Afro-American Studies Interdepartmental Program offers a Bachelor of Arts degree, an undergraduate Afro-American Studies minor, and a Master of Arts degree. A major or minor in this field provides a broadening of cultural experiences and perspectives. Career-wise, all students profit from Afro-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 Afro-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.

Undergraduate Study

AFRO-AMERICAN STUDIES B.A.

The Afro-American Studies B.A. program is periodically revised; check with the program office for changes and updates.

Preparation for the Major

Required: History M10A and the courses listed in one of the following concentrations, plus three courses from at least two additional concentrations (requisites for the courses listed must be completed before enrolling in a given course; this is especially important for the quantitative courses in economics and psychology): anthropology — Anthropology 7, 8, 9, 12; economics — Economics 1, 2, Mathematics 3A, 31E (or 3A and 3B, or 31A and 31B); English — English Composition 3, English 4W, 10A, 10B, 10C (all must be taken in sequence); history — History 1A, 1B, 1C, 10B, 13A, 13B, 13C, and one course from 97A through 97O or 100; philosophy — Philosophy 4, 21, 22, 31; political science — Economics 1, Political Science 20, 40, Sociology 1; psychology — Anthropology 7, Mathematics 2, Physics 10 (or 1A or 6A), Psychology 100A, 100B, one year of high school chemistry (or Chemistry and Biochemistry 2 or 20A); sociology — Afro-American Studies M5 or Anthropology 34, Anthropology 9, Mathematics 2, Sociology 1, M18. Students are strongly urged to complete the required lower division courses within the first two years of the major.

Transfer Students

Transfer applicants to the Afro-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 civilization of Africa course and additional upper division electives within the department of concentration selected from the approved courses listed below: (4) two upper division electives outside the department of concentration selected from the approved courses list.

Students may petition the committee that administers the degree program to have a course not on the approved list accepted for the major.

In arranging a course of study, students should select a combination of courses that best meets their current and future educational and career goals. They must maintain an overall 2.0 grade-point average in all courses taken.

Approved courses (recommended courses are indicated by an asterisk):

English Composition 131A through 131D, 136A, 136B, 136C
Honors Option

Afro-American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option which requires the completion of a senior thesis under the guidance of an Afro-American Studies faculty member. For more information, contact the student affairs officer of the Afro-American Studies Program.

Double Major Option

Some students elect to complete the requirements of both the Afro-American Studies major and one other major. Students interested in this option must maintain good academic standing and complete both majors within the unit maximum imposed by the College. Some courses used to satisfy the requirements for the principal major may also be used to satisfy the requirements for the secondary major, but no more than five courses may be common to both majors. Because of the complexity of the double major, students are encouraged to plan their curriculum early and to do so in consultation with the College counselors and the Afro-American Studies Program student affairs officer.

Afro-American Studies Minor

The Afro-American Studies minor is designed for students who wish to augment their major program of study with courses from various disciplines germane to Afro-American studies. The minor exposes students to African American studies-related coursework, research, and literature in a number of disciplines, such as anthropology, economics, English, history, political science, and sociology.

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition in the program office, 153 Haines Hall. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum imposed by the College.

Required Lower Division Courses (8 units):
Afro-American Studies M5 and 6, with grades of C or better.

Required Upper Division Courses (24 units):

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program, 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.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Afro-American Studies Program offers the Master of Arts (M.A.) degree in Afro-American Studies. A concurrent degree program (Afro-American Studies M.A./Law J.D.) is also offered.

Afro-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. (4) Lecture, three hours; discussion, one hour. Overview of major intellectual trends that have shaped ways in which Afro-American thinkers have interpreted experiences of blacks in the U.S., drawing from such fields as history, philosophy, and literature. Letter grading.

M10A. History of Africa: To 1800. (5) (Same as History M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to the late 18th century. P/NP or letter grading.

M104A. Early Afro-American Literature. (5) (Same as English M104A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of black American literature from the 18th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays), by authors such as Phillis Wheatley, David Walker, Frances Harper, Frederick Douglass, Harriet Jacobs, Paul Laurence Dunbar, Charles W. Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. Afro-American Literature from Harlem Renaissance to the 1960s. (5) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from New Negro Movement of post-World War I period to the 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Sterling Brown, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, and Ralph Ellison. P/NP or letter grading.

M104C. Afro-American Literature since the 1960s. (5) (Same as English M104C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of diverse forms of Afro-American literary expression produced from rise of Black Arts Movement of the 1960s to the present by writers such as Amiri Baraka, Nikki Giovanni, Alice Walker, Etheridge Knight, Toni Morrison, Martin Luther King Jr., Paul Marshall, Ernest Gaines, Ishmael Reed, and Audre Lorde. P/NP or letter grading.

M107. Cultural History of Rap. (4) (Same as Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and allied forms, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.


M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160H and Honors College M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (4) (Same as Theater M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists from the minstrel stage to the rise of the American musical. Letter grading.

M103E. African American Theater History: The Depression to the Present. (4) (Same as Theater 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 the Depression to the present. Letter grading.

M104A. Early Afro-American Literature. (5) (Same as English M104A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from the 18th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays), by authors such as Phillis Wheatley, David Walker, Frances Harper, Frederick Douglass, Harriet Jacobs, Paul Laurence Dunbar, Charles W. Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. Afro-American Literature from Harlem Renaissance to the 1960s. (5) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of 20th-century black American literature from New Negro Movement of post-World War I period to the 1960s, including oral materials (ballads, blues, speeches) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Sterling Brown, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, and Ralph Ellison. P/NP or letter grading.

M104C. Afro-American Literature since the 1960s. (5) (Same as English M104C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of diverse forms of Afro-American literary expression produced from rise of Black Arts Movement of the 1960s to the present by writers such as Amiri Baraka, Nikki Giovanni, Alice Walker, Etheridge Knight, Toni Morrison, Martin Luther King Jr., Paul Marshall, Ernest Gaines, Ishmael Reed, and Audre Lorde. P/NP or letter grading.

M107. Cultural History of Rap. (4) (Same as Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and allied forms, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.
M109. Women in Jazz. (4) (Same as Ethnomusicology M109 and Women’s Studies M109.) Lecture, four hours; discussion, one hour. Survey of African American women in jazz and allied musical traditions from the 1800s to the present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

CM110A-CM110B. African American Musical Heritage. (4-4) (Formerly numbered M110A-M110B.) (Same as Ethnomusicology CM110A-CM110B.) Lecture, four hours; discussion, one hour. Study of African American music and its impact on America; survey of development of various African American musical genres from slave era to the present, including traditions in the Central and South America. Concurrently scheduled with courses CM210A-CM210B. P/NP or letter grading.

CM112A. African American Music in California. (4) (Same as Ethnomusicology CM112A.) Lecture, four hours. Historical and analytical examination of African American music in California, including migration patterns, urbanism and urbanism to determine their impact on development of African American music in California. Concurrently scheduled with course CM212A. P/NP or letter grading.

M112D. African American Art. (4) (Same as Art History CM112D.) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists whose work is widely recognized and offers critical commentary 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.

CM112E. African American Art. (4) (Same as Art History CM112E.) Lecture, three hours. Continuation of course CM112D, involving detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course CM212E. P/NP or letter grading.

CM112F. Imaging Black Popular Culture. (4) (Formerly numbered M112F.) (Same as Art History CM112F.) Lecture, three hours. Critical examination of media ranging from African American painting and sculpture to MTV and advertising, with emphasis on the relationship between black visual production and racism, Afrocentrism, political resistance, and notions of blackness. Concurrently scheduled with course CM212F. P/NP or letter grading.

M114C. African American Political Thought. (4) (Same as Political Science M114C.) 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 movements. Prereq: or concurrent enrollment in courses in African American studies. Debts 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.

M114D. African American Freedom Narratives. (4) (Same as Political Science M114D.) Lecture, three or four hours; discussion, one hour (when scheduled). Historical, psychological, and interpretive exploration of selected narratives and storytelling in African American culture and politics. P/NP or letter grading.

CM118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Formerly numbered M118.) (Same as American Indian Studies M118, Asian American Studies M168, and Chicana and Chicano Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, particularly through student-initiated programs, efforts, activities, and services, with focus on UCLA as a case. Letter grading.

M120. Race, Inequality, and Public Policy. (4) (Same as Public Policy M120.) Lecture, three hours. Background in sociology, 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.

M144. Ethnic Politics: African American Politics. (4) (Same as Political Science M144B.) Lecture, three or four hours; discussion, one hour (when scheduled). Major political movements in the 20th century, focusing on one upper division course on race or ethnicity from history, psychology, or sociology. Prerequisite: Political Science 40. Designed for juniors/seniors. Emphasis on research methods in political science. Prereq: one of the following: an upper division course on race or ethnicity from history, psychology, or sociology. Prerequisite: Political Science 40. Designed for juniors/seniors. Emphasis on research methods in political science. P/NP or letter grading.

M145. Ellingtonia. (4) (Same as Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s music, known as “Ellingtonia,” is one of the largest and perhaps most important bodies of music ever produced in the U.S. Covers the many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP 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” which emerged in its popular form during the late 1960s and reached popular high point, in black culture, during the 1970s. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offers unique window into recent African American history. P/NP or letter grading.

M158A. Comparative Slavery Systems. (4) (Same as History M150A.) Lecture, three hours; discussion, one hour (when scheduled). 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 Studies. History, (4-4) (Same as History M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American history, with emphasis on three great transitions across the African diaspora: transition from Africa to New World slavery to freedom, and transition from rural to urban mumps. P/NP or letter grading.

M158E. African American Nationalism in First Half of the 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 the 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 M169P.) Lecture, three hours. Examination of race, a socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multicultural identity in the U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

M163. Investigative Journalism and Communities of Color. (4) (Formerly numbered M169P.) (Same as Asian American Studies M163.) Lecture, three hours. Role of investigative journalism in understanding interrelated conflict and cooperation. Exploration of different perspectives on issues by comparing mainstream, ethnic, and alternative media coverage. P/NP or letter grading.

M164. Afro-American Experience in the U.S. (4) (Formerly named M176B.) Lecture, three hours. Promotes understanding of the social, political, and economic context of the Afro-American experience in the U.S. by presenting a broad and varied perspective of the Afro-American experience in the U.S. Emphasis on utilization of anthropological concepts and methods for understanding the origins and maintenance of particular patterns of adaptation among black Americans. P/NP or letter grading.

M165. Afro-American Sociolinguistics: Black English. (4) (Formerly named M176C.) Lecture, three hours. Basic information on Black American English, an important minority dialect in the U.S. Social implications of minority dialects examined from sociolinguistic perspective. Requisites: English Composition 3 or 3H. Limited to juniors/seniors. P/NP or letter grading.

M167A-M167B. Intercultural Dynamics in American Society and Culture. (5-5) (Formerly numbered M167A-M167B.) Lecture, three hours; discussion, one hour. Open to freshmen and students with credit for GE Cluster 20A and/or 20B. Examination of culture and meaning of race, racism, and intercultural dialogues in the U.S. through various disciplinary perspectives, including sociology, history, literary criticism, and film studies. Emphasis on understanding the role of race in contemporary American life. P/NP or letter grading.

M172. The Afro-American Woman in the U.S. (4) (Same as Psychology M172 and Women’s Studies M172.) Lecture, two and one-half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of a larger society and as members of their biological and cultural groups. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Chicana and Chicano Studies M173 and Labor and Workplace Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolent and its impact on social movements from historical and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historical contributions of civil rights and role and significance of conceptions of nonviolent action throughout recent U.S history. Examination of the role of nonviolent movement of women as they impact social change organization in labor and workplace movements. P/NP or letter grading.

M178. 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 colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

M179A. Topics in Afro-American Literature. (5) (Formerly named M179A.) (Same as English M179A.) Seminar, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized study in course in Afro-American literature. Topics include Harlem Renaissance, Afro-American Literature in Na- dir, 1890 to 1914; Contemporary Afro-American Fiction. May be repeated for credit. P/NP or letter grading.

179B. Special Studies in Comparative Literature: Caribbean Literature. (4) (Formerly numbered M179B.) Seminar, three hours. General introduction to literature of English-speaking Caribbean by reviewing its historical and geographical background. To analyze historical process toward self-determination in literature, following topics are included: (1) alienation and search for community, (2) "external" relationships (the ancestor, the kinship, the other), and (3) form and language. P/NP or 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.

200B. Seminar: Political Economy of Race. (4) Seminar, three hours. Seminar on political economy, with special reference to black political economy and with focus on dynamics of allocation of wealth and power resources among social classes and racial and ethnic groups in the U.S. Presented in a context that is at once comparative and international, seminar emphasizes internationalism and transnationalism as well as the uniqueness of the Afro-American condition. Attempts to relate the black condition in the U.S. to the socioeconomic system of this country and to compare it to political, social, and economic conditions of Africans peoples elsewhere. S/U or letter grading.

M200C. Selected Problems in Urban Sociology. (4) (Same as Sociology M262.) Seminar, three hours. S/U or letter grading.

M200D. Afro-American Sociolinguistics: Black English. (4) (Same as Anthropology M243Q.) Lecture, three hours. Basic information on Black American English, an important minority dialect in the U.S. Social implications of Black English and its minority dialect forms examined from perspectives of their genesis, maintenance, and social functions. General problems and issues in fields of sociolinguistics examined through a case study approach. Students required to conduct research in consultation with instructor and participate in group discussion. S/U or letter grading.

M200E. Studies in Afro-American Literature. (4) (Same as English M262.) Lecture, four hours. Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.


CM210A-CM210B. African American Musical Heritage. (4) (Same as Ethnomusicology CM210A-CM210B.) Lecture, four hours; discussion, one hour. Survey of African music and its impact on America; survey of development of various African American musical genres from slave era to the present, including traditions in Virginia, Midwest, Central and South America. Concurrently scheduled with courses CM110A-CM110B. S/U or letter grading.


CM212A. African American Music in California. (4) (Same as Ethnomusicology CM212.) 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 California. Concurrently scheduled with course CM112A. S/U or letter grading.

CM212D. African American Art. (4) (Same as Art History CM212D.) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists whose works provide insightful and critical commentary about major features of American life and society, including visits to various key African American art institutions in Los Angeles. Concurrently scheduled with course CM112D. S/U or letter grading.

CM212E. African American Art. (4) (Same as Art History CM212E.) Lecture, three hours. Continuation of course CM212D, involving detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course CM112E. Letter grading.

CM212F. Imaging Black Popular Culture. (4) (Same as Art History 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, Afrocentrism, political resistance, and notions of blackness. Concurrently scheduled with course CM112F. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with an African American child and family. Letter grading.

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

M252S. Constructing Race. (4) (Same as Anthropology M252S.) Seminar, three hours. Examination of social construction of race from anthropological perspective in order to refine understanding of ways this category has had and continues to have concrete impact in the U.S. Exploration of range of topics, including role discipline of anthropology has played in construction of race, representations of race in popular culture, instability of race revealed in passing and debates about multicultural identity, construction of whiteness, and emergence of identity politics. S/U or letter grading.

M256. Topics in African American Art. (4) (Same as Art History M256.) Seminar, three hours. Required course: course CM112D or CM112E or CM112F. Topics in African American art from the 18th century to the present. May be repeated for credit with consent of graduate adviser. S/U or letter grading.

270A. Survey of Afro-American Research. (4) Seminar, three hours. Overview of research methodologies in humanities and social sciences, with first-hand reports from faculty in various fields. Introduction to research in and related to Afro-American studies and application of such research. Letter grading.

C271. Variable Topics in Afro-American Studies. (4) (Formerly numbered C271.) Tutorial, 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 C219. Letter grading.

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

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

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

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

American Indian Studies B.A.

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, Political Science 40, Sociology M128, Women's Studies 10. All courses 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 American politics, introduction to statistical methods, and introduction to women's studies.

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. Three additional electives 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, the nation building course 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.

Students must complete 14 upper division courses (56 units) as follows:


2. Three elective courses (12 units) in one of the following options: (a) history and social sciences: two courses in those categories as listed above and one expressive culture course or (b) expressive culture: one social sciences course and two expressive culture courses

3. American Indian Studies 158 (experimental service learning or supervised internship)

The 14 courses must fit one of the following regional emphasis patterns: (1) Native North America — eight courses, including those mentioned above 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.

All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average. No more than two independent studies courses (199s) may be applied toward the degree.

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 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, (310) 206-7511. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum imposed by the College.

Required Lower Division Course (4 units): American Indian Studies M10 with a grade of C or better.

Required Upper Division Courses (28 units): Seven courses selected from the following: (1) one American Indian languages and communication systems course (Anthropology C144 or Linguistics 114); (2) three history and social sciences courses from Anthropology 113Q, 113R, 114P, 114Q, 114R, 158, 172R, History 149A, 149B, 157B, Sociology M161, Women's Studies 130; (3) three humanistic perspectives on language and expressive culture courses...

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program, 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.

All minor courses must be taken for a letter grade, with 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://www.gdnnet.ucla.edu. 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
M110. Introduction to American Indian Studies. (Formerly numbered 10.) (Same as World Arts and Cultures M23.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

Upper Division Courses
M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Formerly numbered M118T.) (Same as Afro-American Studies M118, Asian American 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 UCLA as a case. Letter grading.

120. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate within Native American communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Letter grading.

121. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, and 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. Letter grading.

122SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced requisite: course 121. Recommend: course 120. Participation in community service learning project within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward completing assigned service learning tasks and contributing to project activities. May be repeated with consent of instructor. 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 in particular, investigation of contemporary policies and legal issues and exploration of Native responses to policy and law. Letter grading.

158. Nation Building. (4) Lecture, three hours; fieldworkresearch, nine hours. Limited to junior/senior American Indian Studies majors. Examination of historical interplay of federal policies with tribal cultures that has shaped political development of American Indian tribal nations. Current developments within Indian nations, including restructuring government, developing economies, and asserting cultural sovereignty to be subject of research, study, and required community-based projects. Letter grading.

M161. Comparative American Indian Societies. (4) (Same as Sociology M161.) Lecture, three hours. Prerequisite: course M10 or Sociology 1. Comparative and historical study of political, economic, and cultural change in indigenous North American societies. Several theories of social change, applied to selected case studies. Letter grading.

CM168P. Perspectives on Health of Native North Americans. (4) (Same as Anthropology CM168P.) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history and contemporary situation of first peoples of North America. Examination of different perspectives related to health and health care of Native North Americans (within present boundaries of the U.S. and Canada) in relation to cultural, social, political, and economic aspects of changing historical context. Concurrently scheduled with course CM268P. P/NP or letter grading.

170. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussion, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Letter grading.

175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies and Semeno people through readings, discussions, and direct participation via videoconference courses with San Manuel Nation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Letter grading.

180. Introduction to and Practicum in Native American Languages. (4) Lecture, three hours; laboratory, one hour. Development of ability to converse, read, and write at elementary level in Native American languages. Introduction to both phonological and grammatical structures, vocabulary, and cultural patterns of using language as symbolic guide to culture. May be repeated with language change and approval of interdepartmental chair. Letter grading.

187. Special Topics in American Indian Studies. (4) (Formerly numbered 197.) Lecture, four hours. Variables topics selected from: 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 twice for credit. Letter grading.

199. Special Studies in American Indian Studies. (2 to 4) Tutorial, to be arranged. Special individual topics on American Indian studies. P/NP or letter grading.

Graduate Courses
M200A. Advanced Historiography: American Indian Peoples. (4) (Same as History M200W.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to cultural histories of North American Indians and review of Indian concepts of history. Stereotypical approach to content and methodologies related to the Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

M200B. Cultural World Views of Native America. (4) (Same as English M266.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms — dance, art, song, religious and medicinal ritual — in selected Native American societies, as these traditional and tribal contexts have been 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.

M200C. Contemporary Issues of the American Indian. (4) (Same as Anthropology M269 and Sociology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in the contemporary world, building on historical background presented in course M200B. Emphasizes expressive experience of American Indians presented in course M200B. Letter grading.

201. Topics in American Indian Studies. (4) Discussion, three hours. S/U or letter grading.

202. Qualitative Research Design and Methodology for Indigenous Communities. (5) Seminar, three hours. Limited to graduate American Indian studies students. Introduction to some of key theoretical themes in American Indian studies and exploration of methods that can be used to incorporate them in research on Native American cultures, societies, languages, and other issues. Letter grading.

M228. Seminar: Indian Law — Tribal Legal Systems. (4) (Same as Law M228.) Seminar, two hours (15 weeks). Study of historic and contemporary legal systems of selected tribes, with emphasis on relationships among law, religion, and social order. Letter grading.

M238. Indian Law Clinic: Legislation. (5) (Same as Law M428.) Lecture, three hours. Students provide nonlitigation legal assistance to Native American tribal nations, mostly in California. Clinic services include development and modification of tribal legal codes and constitutional provisions, development of tribal courts and other dispute resolution processes, and drafting of intergovernmental agreements. Cross-cultural representation, legislative drafting, and intergovernmental negotiation skills stressed. Letter grading.
ANESTHESIOLOGY
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Randolph H. Steadman, M.D., Vice Chair, Education
Enrico Stefani, Ph.D., M.D., Vice Chair, Research
Barbara M. Van de Weile, M.D., M.D., Chair, Clinical Affairs
Rima Matevosian, M.D., Chair, Olive View-UCLA
Chair System
John S. McDonald, M.D., Chair, Harbor-UCLA

Scope and Objectives
The medical student program in anesthesiology focuses on the delivery of peri-operative care to surgical patients. During their training in the department, students develop clinical skills of medical management of surgical patients, techniques of invasive line and monitor placement, and airway management skills. They are assigned to work with a specific attending anesthesiologist and/or anesthesia resident on a daily basis in one of the operating room locations and participate in the preoperative evaluation and preparation of their patients and development of an anesthetic plan. Students then observe how to prepare for and execute their anesthetic plan. They have opportunity to perform procedures as their abilities and the situation permit. In addition, the department has established the Human Patient Simulator which provides students with a simulated operating room setting where a variety of clinical situations are initiated so they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesia topics, including physiology, pharmacology, and critical care.

For further details on the Department of Anesthesiology and a listing of the courses offered, see http://www.anes.ucla.edu.

ANTHROPOLOGY
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Assistant Professors
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P. Jeffrey Brantingham, Ph.D.
Daniel Fessler, Ph.D.
Maureen E. Mahon, Ph.D.
Monica L. Smith, Ph.D.

Scope and Objectives
Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its "holistic" or integrative approach; it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for people with a wide variety of interests: human cultures and civilizations both present and past, human and animal behavior, particular regions of the world such as Africa, Asia, Latin America, Oceania, etc.

The department 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 hunter-gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

Biological anthropology is the study of humans and other primates from a Darwinian point of view. The program focuses on the evolutionary ecology of early hominids, extant primates, and contemporary humans and includes training in evolutionary theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia.
where ongoing projects include work on primate behavior, hominid evolution, and evolutionary psychology.

Linguistic anthropology is an interdisciplinary field that addresses the manifold ways in which language, interaction, and culture mutually organize each other in different communities worldwide. Linguistic anthropologists at UCLA have a variety of backgrounds and research interests that include face-to-face communication, language contact and change, language and politics, language socialization across the life span, verbal art and performance, and the relation of language to ideology, mind, emotion, and identity. Courses are offered in ethno- graphic 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 which 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 undergraduates; 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 or 12, 8, 9, 33. All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average.

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/adm_tr.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. All courses must be taken for a letter grade, and students must maintain an overall 2.0 GPA.

Students must complete 13 courses (52 to 60 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
5. Three additional upper division anthropology courses
6. Two related fields courses that demonstrate cohesion, to be selected in consultation with the undergraduate adviser and approved by the department

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.

Concentrations for the Major

Concentrations, although not required, may help define and structure an Anthropology major when students want emphasis in one of the four major fields. Whether or not they opt for a concentration, the requirements for the major must still be satisfied. It is possible to use courses within their specified concentration to fulfill overlapping requirements for the major. Exceptions to the requirements below are by petition only. More detailed information on the concentrations is available from the undergraduate adviser.

1. Archaeology: Two courses from Anthropology 110P, 111, 183; two field or laboratory methods courses from 115P, 117, 117P, 117Q; one methods course from C115R or 129Q; one quantitative methods course from M80, 180, or M186; two area courses from 112, 113P, 113Q, 114L, 114P, 114Q, 114R, C114S, 114T, M155A, M155B, M116, M119, 119P; one theory course from 120, 124, 150, 152, 153, 153P, 156, 158A, M185A, M185B, or 186P

2. Biological Anthropology: Anthropology 120; one quantitative methods course from M80, 180, or M186; one methods course from 115P, 117, 117P, 117Q, or 143; one human biology and behavioral ecology course from 124; M185A, M185B, or 186P; one paleoanthropology course from 121A, 121B, 121C, or both 12 and 129Q (credit is not granted for both courses 7 and 12); one human genetics course from Ecology and Evolutionary Biology C135 or Molecular, Cell, and Developmental Biology CM156; one prime behavior course from Anthropology 128A, 128B, or Ecology and Evolutionary Biology 129

3. Linguistic Anthropology: Anthropology 33, M140, Linguistics 20, Sociology CM124A; two methods courses from Anthropology 141, 142A, 143, Linguistics 103; one ethnography course from Anthropology C144, M145, 146, or Linguistics 114; one course from Anthropology 133Q, 133R, 135A, 135B, 135C, Communication Studies 100, Linguistics 110, or 127; one term of a non-European language

4. Sociocultural Anthropology: Anthropology 130, 150; one primary course from three of the four subconcentrations listed below; two history, theory, and methods courses from M80, 139, 180, 182, M186, Sociology 101; one region and society course from M154Q, 158, 171, 172A, 172B, 172R, M172V, 173Q, 174P, 175Q, 175R, 175S, 175T, 175U, 175V, 176, or 177; two additional courses from one of the subconcentrations listed below:

b. Ecological and Evolutionist Subconcentration: Primary course: Anthropology 153; additional courses: 128A, 128B, 158, M186, 186P; Geography 140
Anthropology B.S.

Preparation for the Major

Required: Anthropology 7 or 12, 8, 9, 33; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14CL, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 1, 2, 3, 4; Mathematics 3A, 3B, and 3C, or 31A and 31B; Physics 6A, 6B, and 6C, or 6AH, 6BH, and 6CH; one statistics course selected from Anthropology M80, Geography M40, Political Science 6, Sociology M18, Statistics 10, 10A, or 12 (students may substitute a course by petition and departmental approval). All courses must be taken for a letter grade, and students must maintain an overall 2.0 grade-point average.

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 one culture and communication course, two course, one sociocultural anthropology course, and one archaeology 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

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. All courses must be taken for a letter grade, and students must maintain an overall 2.0 GPA.

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
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.

Anthropology Minor

Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four fields within anthropology (archaeology, biological anthropology, linguistic anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

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 or 12, 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 adviser in planning their program of study.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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

7. Human Evolution. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor’s degrees. Evolutionary processes and evolutionary past of the human species. P/NP or letter grading.

8. Archaeology: An 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 the world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is the contribution and knowledge that cultural diversity makes toward understanding the problems of the 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 ethnographically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, political discourse, and art-making as cultural activity. P/NP or letter grading.

34. Introduction to Urban Speech Communities. (4) Lecture, three hours; discussion, one hour. Introduction to study of speech communities in metropolitan areas, with special focus on communities in Los Angeles. Emphasis on ways in which communities share and incorporate speech norms of urban society while maintaining rules for conduct and interpretation of speech within specific speech communities. Topics include language and identity, socialization, social dialects, and communication. P/NP or letter grading.

M80. Introduction to Statistical Methods for Social Sciences. (5) Same as Geography M40, Sociology M18, and Statistics M12.) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for Statistics 10, 11, or 13 (or former Economics M40, Organismic Biology M22, Statistics M11, or M13). Elements of statistical analysis for social sciences. Presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions, statistical inference including principles of estimation and tests of hypotheses, introduction to regression and correlation. P/NP or letter grading.

88A. Sophomore Seminars: Anthropology. (2) (Formerly numbered 88.) Seminar, 90 minutes. Limited to 20 lower division students. Readings and discussions designed to introduce students to current research in discipline. May be repeated for credit with topic change. P/NP or letter grading.
Upper Division Courses

**Archaeology**


111. Theory of Anthropological Archaeology. (4) Lecture, three hours. Requisite: course 8. Method and theory with emphasis on archaeology within context of anthropology. Themes include theoretical developments over last 50 years, structure of archaeological reasoning, and selective survey of work on problems of general anthropological interest. P/NP or letter grading.


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


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

114L. Archaeology of Chieftoms. (4) Seminar, three hours. Enforced requisite: course 8. Examination of chieftain societies in anthropological record, with readings focused on theory and data from archaeological literature. Illustration of how people in ranked non-state societies created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. Letter grading.

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

114Q. Topics in Archaeology of Mesoamerica. (4) Lecture, three hours. Designed for juniors/seniors. Specialized consideration of particular regions or topics in archaeology of pre-Hispanic Mesoamerica. Specific topics vary but include archaeology and ethnology, ancient Mexican art and architecture, and the Maya. P/NP or letter grading.

114R. Ancient Civilizations of Andean South America. (4) Lecture, three hours. Requisite: course 8 or 9. Pre-Hispanic and Conquest period native cultures of Andean South America are revealed by archaeology and early Spanish writing. The Incas and their predecessors in Peru, with emphasis on socio-political systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

114S. Comparative Study of Ancient States. (4) Lecture, three hours. Comparative anthropological study of first complex societies in the Near East, Mesoamerica, and the Andes, including early Egyptian, Uruk, Teotihuacan, classic Maya, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. Concurrently scheduled with course CM214S. P/NP or letter grading.

114T. Moche Civilization of Ancient Peru. (4) Lecture/demonstration, three hours. Requisite: course 114R. Moche civilization, which flourished on north coast of Peru between A.D. 100 and 800, as revealed by archaeology, iconography, ethnohistory, and early Spanish writing. Emphasis on Moche aesthetic, technological, and social systems. P/NP or letter grading.

115A-M. Historical Archaeology. (4) Same as History M102A-M102B. Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/seniors. P/NP or letter grading. 115A. World History: The Ancient World. Emphasis on appreciation of historical sources, archaeology, and material culture. Thematic emphasis, with exploration of breadth of discipline both in Old World and Americas. 115B. American Perspective. Emphasis on historical archaeology in North America, particularly to some practical applications.

115P. Archaeological Field Training. (6 or 13) Lecture, two to three hours; fieldwork, to be arranged (nine hours minimum for 6 units, 50 hours minimum for 13 units). Requisite: course 8. Off-campus field archaeology course offered in either regular session or summer. Procedures of archaeological excavation, recording, mapping, surveying, and initial analysis of archaeological data. P/NP or letter grading.

115R. Strategy of Archaeology. (4) Seminar, three hours. Designed for juniors/seniors. Introduction to problem formulation, theory, and method in archaeology, with emphasis on development of research designs. Focus on how archaeological research is conceived and planned, with consideration of differing viewpoints and the impact of constraints. Concurrently scheduled with course C215R. Letter grading.

116. Archaeology of South Asia. (4) Lecture, three hours. Archaeology of Harappan, early historic, and medieval periods in Indian subcontinent. Investigation of identity and changes over time, including such as Buddhist-influenced, as well as consideration of how past is interpreted in present. P/NP or letter grading.

117. Archaeological Laboratory Methods. (5) Lecture, three hours; laboratory, two to three hours. Requisite: course 8. Introduction to archaeological analysis of range of prehistoric cultural materials. Procedures of classification, analysis, data entry. Extensive laboratory work with lithic artifacts, vertebrate fauna, shellfish, plant remains, bone and shell tools, ceramics. P/NP or letter grading.

117P. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours. Requisite: course 8. How archaeological research is furthered by specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, ceramics, rock art. Hands-on experience working with collections and design of projects for credit with topic change. P/NP or letter grading.

117Q. Intensive Laboratory Training in Archaeology. (6) Lecture, three hours; laboratory, three hours. Requisite: course 8. Archaeologists with special expertise in specific techniques and topics oversee intensive laboratory training on one of following topics: zooarchaeology, ethnoarchaeology, lithic analysis, ceramic analysis, etc. May be repeated for credit with topic change. 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 instructors. May be repeated for credit with topic change. P/NP or letter grading.

M119. Topics in African History: Prehistoric Africa — Technological and Cultural Traditions. (4) Same as History M164A. Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Survey of nondocumentary sources of African prehistory and archaeology, historical and archaeological evidence from origins of humanity until A.D. 1600. P/NP or letter grading.

119P. Cities Past and Present. (4) Lecture, three hours. Requisite: course 8 or 9. Examination of ancient and modern cities to evaluate how urban form developed and continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including South America, Africa, and ancient Near East. Letter grading.

**Biological Anthropology**

120. Survey of Biological Anthropology. (4) Lecture, three hours. Requisite: one to two quarters for juniors/seniors. Survey of major topics in biological anthropology of human evolution. P/NP or letter grading.

120G. Biological Anthropology in Review. (6) Lecture, three hours; seminar, three hours. Limited to graduates. Designed for anthropology students who have a deficiency in biological anthropology. Seminar discussion based on basic evolutionary principles, behavior of nonhuman primates, hominid evolutionary history, and contemporary human variation. Letter grading.

121A. Primate Fossil Record. (4) Lecture, three hours. Requisite: course 7 or 12. Introduction to method and theory in paleoanthropology. Primate evolution, Cretaceous through the Miocene. May be taken independently for credit. P/NP or letter grading.


121C. Evolution of Genus Homo. (4) Lecture, three hours. Requisite: course 7 or 12. Origin and evolution of the genus Homo, including archaic sapiens and Neanderthals, morphology, ecology, and behavior of these groups. Course ends with appearance of modern man. May be taken independently for credit. P/NP or letter grading.

121P. Reconstructing Hominid Behavior and Paleoeconomy. (4) Seminar, three hours. Use of paleontological, archaeological, ecological, and geological evidence to infer late Pliocene and early Pleistocene hominid behavioral and environmental context of human evolution. P/NP or letter grading.

121Q. Paleoanthropology in Review. (6) Lecture, three hours; seminar, three hours. Corequisite: course 12. Limited to juniors/seniors. Designed for advanced students with interest in human evolution, fossil evidence, and theoretical constructs. Students attend course 12 lectures, plus three-hour seminar per week. 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 anatomical landmarks on human skeleton, identify fragments of bones, and know origins, insertion points, and action of major muscles. How to sex and age skeletons and introduction to paleopathology. Letter grading.

124P. Evolution of Human Sexual Behavior. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 7 or 12. Examination of human sexual relations and social behavior from evolutionary perspective. Emphasis on theories and evidence for differences between men and women in their patterns of growth, maturation, fertility, mortality, parenting, and relations 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. P/NP or letter grading.


129Q. Paleopathology. (4) Lecture, three hours. Designed for juniors/seniors. The major paradigm of paleopathology as a culture, as illustrated by evidence of disease and trauma, as preserved in the skeletal remains of ancient and modern human populations. Discussions of medical procedures (trepanation), health status, ethnic mutation, growth, function, footbinding, cannibalism, and sacrifice and 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). Requisite: course 9. Designed for juniors/seniors. The 20th-century elaboration and development of the concept of culture. Review of major paradigms of culture as a human capacity, as patterns and products of behavior, as systems of meaning and cognition, as generative structure and semiotic system, as a component in social action and reality 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 major 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.

133Q. Symbolic Systems. (4) Lecture, three hours. Designed for juniors/seniors. Analysis of anthropological research and theory on cultural systems of thought, behavior, and communication expressed in a symbolic mode (as distinguished from discursive, instrumental, and causal modes). Methods for study of symbolic meaning, including the experiential approach, P/NP or letter grading.

133R. Aesthetic Systems. (4) Lecture, three hours. Designed for juniors/seniors. Provides framework for a cross-cultural understanding of aesthetic phenomena that meets the requirements of anthropological research. Human capacities for aesthetic experience; sociocultural formation of aesthetic production; ethno-aesthetics; experiential dimension of aesthetic production. Letter grading.


135A-135B. Introduction to Psychological Anthropology. (4-5) P/NP or letter grading. Lecture, three hours. Required for Anthropology. Survey of the field of psychological anthropology, with emphasis on early foundation and development of the field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

135B. Current Topics and Research. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Survey of the 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.

135C. Seminar: Psychocultural Studies. (4) Seminar, three hours. Requisite: course 9. Firsthand exposure to current research in psychocultural studies. Various university scholars are brought in to discuss their on-going research. Using these presentations as models, students develop proposals for future research. P/NP or letter grading.


135T. Psychoanalysis and Anthropology. (4) Lecture, three hours. Exploration of mutual relations between anthropology and psychoanalysis, considering both theory and method. History of and current developments in psychoanalysis; anthropological critiques of psychoanalytic theory and method, toward a cross-cultural psychoanalytic approach. Letter grading.

136Q. Laboratory for Naturalistic Observations: Developing Skills and Techniques. (4) Formerly numbered M136Q.) 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 of the 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. 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 ascertainment 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.

Linguistic Anthropology

M140. Language in Culture. (5) (Same as Linguistics M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Required: course 33 or Linguistics 20. Study of language as an aspect of culture; relation of habitual thought and behavior to language and language and the 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 archaeology. (Core course for linguistics field.) P/NP or letter grading.

141. Ethnography of Everyday Speech. (5) Lecture, three hours; fieldwork. Required: 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 the sociocultural knowledge which it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. Letter grading.

142A-142B. Microethnography of Communication. (4) Lecture, three hours; discussion. Required: course M140. Course 142A or Sociology CM124A is requisite to 142B. Students make primary records (sound tape, videotape, or film) of naturally occurring social interactions which are analyzed in class for interactive tasks, resources, and accomplishments displayed. Laboratory and fieldwork outside of class and minimal fees to offset costs of equipment maintenance and insurance required. P/NP or letter grading.

143. Field Methods in Linguistic Anthropology. (4) Lecture, three hours. Required: course M140. Practice in eliciting linguistic data from informants. Initial focus on phonetic transcription and phonological structures; introduction to skills and strategies pertinent to morphological, syntactic, and textural analysis. Practice with native speakers of non-Indo-European languages is normally assigned. Credit: aspect of student participation. P/NP or letter grading.

C144. Native American Languages and Cultures. (4) Lecture, three hours. Required: course 33 or American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language use in Native North American Indian speech 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 variation within speech communities (e.g., male and female speech, baby talk, ceremonial speech, etc.). Macro-sociolinguistic considerations include language contact and its relationship to language change and language in American Indian education. Concurrently scheduled with course C242P. P/ NP or letter grading.

M145. Afro-American Sociolinguistics: Black English. (4) (Same as Afro-American Studies M166.) Lecture, three hours. Basic information on Black American English, an important minority dialect in the U.S. Sociolinguistic implications of minority dialects examined from perspectives of their genesis, maintenance, and social functions. General problems and issues in fields of sociolinguistics examined through a case study approach. Letter grading.
Social Anthropology

150. Study of Social Systems. (4) Lecture, three hours. Requisite: course 9, Introduction to more specialized social anthropology courses. Evaluation of variation in social organization and how societies are organized and social relations are maintained. Basic frameworks of anthropological analysis; historical context and development of social anthropology discipline. Letter grading.


152. Politics: Tribe, State, Nation. (4) Lecture, three hours. Cross-cultural examination of politics and political organization. Law and the maintenance of order; corporate groups; ideology. Relations of political institutions to other institutions of society and to issues of identity and representation. Letter grading.


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 Women’s Studies M155.) Lecture, three hours. Requisite: Preparatory: 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 Women’s Studies M155Q.) Lecture/discussion, three hours. Recommended preparation: prior women’s 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 the centrality of gender interests. P/NP or letter grading.

156. Comparative Religion. (4) Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religions through descriptive and structural approaches, and identification of social and psychological factors which may account for variation in religious systems cross-cultural. P/NP or letter grading.

157. Selected Topics in Social Anthropology. (4) Lecture, three hours. Study of selected topics in social anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or 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 methodological and cultural viewpoint. Discussion of the possibility of developing a general framework for synthesizing these two viewpoints. Use of this synthesis as a basis for illustrating the relevance of hunting and gathering societies as an understanding of complex societies. P/NP or letter grading.

158P. Pastoral Nomads. (4) Lecture, three hours. Requisite: course 9 or 150. Survey of pastoral nomad societies. Consideration of environmental and social demands of livestock domestication and production. Focus on ecological features, cultural practices, and social organization, with special attention to historical interactions between pastoral nomads and settled peoples. Letter grading.

159. Warfare and Conflict. (4) Lecture, three hours. Examination of conflict and violent confrontation as these have been treated in anthropological literature. Cross-cultural comparison of institutions such as raids, feuds, ritual warfare. Consideration of applica- tion of anthropology to study of militaries, modern warfare, and large-scale ethnic conflict. Letter grading.

M159P. Constructing Race. (4) Same as Afro-American Studies M159P and Asian American Studies M169.) Lecture, three hours. Examination of race, a socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in the U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.


163. Selected Topics in Applied Anthropology. (4) Lecture, three hours. Study of selected topics in applied anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.


167. Urban Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for junior/senior social sciences majors. Survey of urbanization throughout world, with emphasis on urban adaption of rural migrants. Special focus on problems of rural/urban migration of ethnic minority groups and subsequent adaptation of them within the U.S., explored in terms of social and cultural perspectives of anthropologists. P/NP or letter grading.
M168. Culture, Illness, and Healing. (4) (Same as Nursing M158.) Lecture, four hours. Medical anthropology is organized around holistic exploration of ways in which health, illness, and medical practices are socially and culturally mediated. Topics include comparing illness experiences, understandings about health and illness, patterns of care seeking, therapeutic practices, and medical systems in context of different social and cultural settings, including our own. P/NP or letter grading.

CM168P. Perspectives on Health of Native North Americans. (4) (Same as American Indian Studies CM168P) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history and contemporary situation of first peoples of North America. Examination of different perspectives related to health and health care of Native North Americans (within present boundaries of the U.S. and Canada) in relation to cultural, social, political, and economic aspects of changing historical context. Concurrently scheduled with course CM268P. P/NP or letter grading.

C169R. Repatriation of Native American Human Remains and Cultural Objects. (4) Lecture, two hours; discussion, one hour. Native American issues 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 C269R. Letter grading.

Regional Cultures

Africa

171. Sub-Saharan Africa. (4) Lecture, three hours. Issues of ecology and political economy; continuing impacts of colonialism, nationalism, and current challenges for development; changes in social relations. Examination of Africa’s significance to development of anthropology. Cultural background for understanding events in contemporary Africa provided. Letter grading.

North America

172A. Native North Americans. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of diversity of Native American societies north of Mexico, including their origins, formation, and development. Particular attention to subsistence systems and their relationship to social institutions and cultural practices, especially religion. Letter grading.

172B. Change and Continuity among Native North Americans. (4) Lecture, three hours. Requisite: course 172A. Consideration of tremendous change Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization and its implications. Letter grading.

172R. Cultures of the Pueblo Southwest. (4) Lecture, three hours. Survey of ethnographic and ethnohistorical research of Pueblo Indians (Hopi, Zuni, Tewa, and Keresan) and their immediate neighbors. Basic information on history, languages, social organization, and traditional cultural systems of these groups. P/NP or letter grading.

M172V. Culture Change and the Mexican People. (4) (Same as Chicana and Chicano Studies M172V) Lecture, three hours. Requisite: course 9 or Chicana and Chicano Studies 10A or 10B. Culture change theory encompasses such issues as innovation, syncretism, colonialism, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists use in studying and analyzing culture change within ethnohistorical background of the Mexican and Mexican American people to clarify social and cultural origins of modern habits and customs and, more importantly, unravel various culture change threads of that experience. Topics include technology and evolution, Indian nation-states, miscegenation, peasantry, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.

Middle America

173G. Latin American Communities. (4) Lecture, three hours. Overview of social and cultural anthropology of small communities in Latin America. Similarities and contrasts in social organization and interpersonal relations described in context of economic, political, and cultural environments. P/NP or letter grading.

South America

174P. Ethnography of South American Indians. (4) Lecture, three hours. Introduction to ethnography of South American Indians, with special emphasis on Lowland South America. Survey of history and development of man and society in this world area and examination of exemplary cultures symptomatic of various levels of cultural achievement. P/NP or letter grading.

Asia

175G. Ideology and Social Change in Contemporary China. (4) (Formerly numbered 175SW) Lecture, three hours. Overview of culture and society among the diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within context of recent national integration, kinship, forms of marriage and status of women, religion and the social order in Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

175S. Japan. (4) Lecture, three hours. Overview of contemporary Japanese society. General introduction, kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interpersonal relations, social deviance. P/NP or letter grading.

175T. Civilizations of East Asia. (4) Lecture, three hours. General anthropological introduction to the closed, isolated civilizations of China, Korea, and Japan, providing a comparative analysis of fundamental institutions such as family, state, and religion and assessing effects of urbanization and industrialization. Letter grading.

175U. Cultures of the Indonesian Archipelago. (4) Lecture, three hours. Introduction to past and contemporary civilizations and cultures of Indonesia, including Javanese, Balinese, Toraja, Dayak, and Minangkabau. Geographical, ecological, and historical overview of ethnographic examination of such topics as religious and political ideas and institutions, art, symbolism and ritual, illness and healing, and psychological issues and themes. P/NP or letter grading.

175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea. (4) Lecture, three hours. Examination of South Korea’s contemporary structural position, with focus on its dynamic development out of a history of colonialism and war to capitalism; multiple and conflicting linkages of Korean people involving class, gender, family/kinship, and nation. Letter grading.

175Y. Chinese Family and Kinship. (4) Lecture, three hours. Examination of family and kinship organization in traditional Chinese society, socialist transformation of these institutions on mainland China during Maoist era, and role of familial culture in economic development of Taiwan, Hong Kong, Singapore, and mainland China in post-Mao era. Letter grading.

Middle East

176. Culture Area of the Middle East. (4) Lecture, three hours. Study of the Middle East has suggested many theories as to developmental history of human kind, evolution of human society, birth of monotheism, and origin of agriculture, trade, and the city. Presentation of anthropological material relevant to understanding the Middle East as a culture area and Islam as basis of its shared tradition. Letter grading.

Pacific

177. Cultures of the Pacific. (4) Lecture, three hours. Four major culture areas of Australia, Melanesia, Polynesia, and Micronesia. General geographical features, prehistory, and language distribution of the whole region. Distinct 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) Lecture, 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

180. Quantitative Methods in Anthropology. (5) Lecture, three hours; laboratory, one hour. Requisite: course M80. Methods of quantitative data analysis. Topics to be selected from linear regression analysis (univariate and multivariate), principal component analysis, discriminant analysis, cluster analysis, nonparametric tests, and log-linear models. Emphasis on computer-based applications of data analysis techniques. Letter grading.

182. History of Anthropology. (4) Lecture, three hours. Brief survey of development of Western social science, particularly anthropology, from Greek and Roman thought to emergence of evolutionary theory and concept of culture in the late 19th century. “Root paradigm” of Western social science and its influence on such notables as Durkheim, Freud, Hall, Lombrso, Marx, Piaget, Terman, and others. Consideration of how this influences ethnocentrism and Eurocentrism, sexism, racism, perception of deviance, and our view of culture in general. P/NP or letter grading.

183. History of Archaeology. (4) Lecture, three hours. Preparation: at least one upper division archaeology course. Development of world archaeology from the Renaissance to the present, stressing how each of the major branches of archaeology has evolved a special character determined by peculiarities of its own data, methods, and intellectual affiliation. P/NP or letter grading.

M186. Models and Modeling in Anthropology. (4) (Formerly numbered 46B.) (Same as Honors Colleghium M150.) Lecture, three hours. Modeling from both individual and social structure viewpoints. Introduction to four groups of models, along with ethnographic examples — objective, indifference curve and marginal cost models, adaptation and learning models, and information diffusion models. Letter grading.

M185A-M185B. Theoretical Behavioral Ecology. (4-4) (Formerly numbered CM189A-CM189B.) (Same as Ecology and Evolutionary Biology M185A-M185B.) Lecture, three hours. Preparation: one upper division introduction to evolutionary biology of one university-level mathematics course (preferably calculus or probability and statistics). Course M185A is requisite to M185B. Students expected to do simple algebra, elementary calculus, and probability. Rich body of mathematical theory describing evolution of animal behavior exists. Introduction to this body of theory at pace and mathematical level that allows students to grasp this information. Within each area of theory (e.g., kin selection, optimal foraging theory, etc.), presentation of basic corpus of models so that students understand assumptions that underlie models, and how main results are derived. Presentations supported by survey of results printed in the literature, especially those derived using more advanced methods. Letter grading.

Special Studies

191. Variable Topics in Anthropology. (4) Seminar, three hours. Research seminar on selected topics in anthropology. Reading, discussion, and development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

191HA. Beginning Seminar. (4) (Formerly numbered 197HA.) Seminar, three hours. Limited to anthropology honors program students. Survey of major research strategies in anthropology to aid honors students in developing research proposals. Letter grading.

191HB. Field Methods. (4) (Formerly numbered 197HB.) Seminar, three hours. Limited to anthropology honors program students. Survey of major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

191HC. Data Analysis. (4) (Formerly numbered 197HC.) Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropology to aid honors students in analysis of their own research data. Letter grading.

191HD. Writing for Anthropology. (4) (Formerly numbered 197HD.) Seminar, three hours. Limited to anthropology honors program students. Teaching of writing skills, with focus on how to write hypotheses, papers, and theses. Letter grading.


194. Research Group Seminar: Anthropology. (1) Seminar, one hour. Limited to undergraduate students who are part of research group or internship. Discussion of research methods and current literature in discipline or of research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

197. Individual Studies in Anthropology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (e.g., paper or other product) required. 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. Individual contract required. P/NP or letter grading.

Graduate Courses


200P. Cultural Anthropology Field Preparation. (4) Seminar, three hours. Requisite: course 200. Follows course 200 as field preparation for summer search for cultural anthropologists. Students develop specific research methods and present them in seminars. Practical issues (visas, community entry, health concerns) also addressed. S/U grading.

201A-M201B. Graduate Core Seminars: Archaeology. (6-6) (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 30 to 40 major archaeology works. These seminars provide students with foundation in breadth of knowledge required of an academic anthropologist. Emphasis on interdisciplinary approach to archaeology as a scholarly discipline. Consideration of writings of Durkheim, Weber, Marx, and others. Letter grading.

202. Biological Anthropology Colloquium. (4) Seminar, three hours. Selected topics on status of current research in 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 the 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 a sociocultural perspective. Discussion of linguistic, philosophical, psychological, and anthropological contributions to understanding of verbal communication as a social activity embedded in culture. S/U or letter grading.

Archaeology


210P. Archaeology Field Preparation. (4) Seminar, three hours. Requisite: course 200. Follows course 200 as field preparation for summer search for cultural anthropologists. Students develop specific research methods and present them in seminars. Practical issues (visas, community entry, health concerns) also addressed. S/U grading.

211. Regional Analysis in Archaeology. (4) (Same as Archaeology M201C.) Lecture, three hours. Course 210 is not requisite to 211. Survey of analytical methods used in archaeology to study prehistoric settlement systems. Specific issues include settlement distribution with respect to natural resources, settlement hierarchy, and patterns of exchange. Letter grading.

212P. Selected Topics in Hunter/Gatherer Archaeology. (1) Seminar, three hours. Prehistory and ethnohistory of hunter/gatherer peoples. Consideration of range of issues, including (but not limited to) technological innovations, exchange systems, settlement and mobility, and social change. May be repeated for credit. S/U or Letter grading.

212S. Selected Laboratory Topics in Archaeology. (1) (Same as Archaeology M202A.) 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.

213. Selected Topics in Prehistoric Civilizations of the New World. (4) Lecture, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

214. Selected Topics in Prehistoric Civilizations of the New World. (4) Lecture, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

214S. Comparative Study of Ancient States. (4) (Same as Archaeology M214.) Lecture, three hours. Comparative anthropological study of first complex societies in the Near East, Mesoamerica, and the Andes, including early Egyptian, Uruk, Teotihuacan, classic Maya, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. Concurrently scheduled with course C114S. S/U or letter grading.

215. Field Training in Archaeology. (6 or 12) Lecture, two to three hours; fieldwork, eight or more hours (6 units) or 50 or more hours (12 units). Off-campus field archaeology course offered in regular session or summer. Intensive training in archaeological excavation, mapping, surveying, recording, preliminary analysis of field data, and project organization/supervision. May be repeated for credit. S/U or letter grading.

215R. Strategy of Archaeology. (4) Seminar, three hours. Introduction to problem formulation, theory, and method in archaeology, with emphasis on development of research designs. Focus on how archaeological research is conceived and planned, with consideration of differing viewpoints and their usefulness. Concurrently scheduled with course C115R. Complete research proposal required of graduate students. Letter grading.

216. 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 religious or ritualistic ceremonial and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural “influence.” Letter grading.
217. Explanation of Societal Change. (4) Lecture, three hours. Examination of processes of societal change, emphasizing usefulness of a variety of explanatory models from general systems theory, ecology, anthropology, and other sources. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

217A. African Societies. (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 spatial organization enable assessment of sociocultural development. Non-Western examples, including such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness processes as they relate to culture. Topics vary from term to term. May be repeated for credit. S/U or letter grading.

234R. Culture, Cognition, and Being in the World. (4) Seminar, three hours. Whether and how culture and thought shape each other is a historically enduring and controversial topic. Focus on work challenging prevailing implicit acceptance of theoretical separation between study of mind and study of culture. S/U or letter grading.

234T. Anthropology of Human Body. (2 to 4) Seminar or Lecture and/or Practice. Seminar, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about the human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

235. The Individual in Culture. (4) Seminar or Lecture. Seminar, three hours. Designed for graduate students. Letter grading.

238. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; discussion, one hour. Examination of cross-cultural study of socialization and child training methods, ethnographic data, and theoretical orientations. Emphasis on current research. S/U or letter grading.

238B. Current Problems in Biological Anthropology. (4) Seminar, three hours. Preparatory research, to critically assess a broad and representative sample of modern scholarship devoted to study of intra-individual and interindividual variation, and to evaluate utility and potential applicability of recent linguistic models to anthropological theory. Letter grading.

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

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. Transcultural Psychiatry. (4) (Same as Psychiatry M222.) Lecture, three hours. Consideration of psychiatric topics in cross-cultural perspective, such as suicide, schizophrenia, homicide, behavioral disorders, “culture specific” syndromes, non-Western psychiatry, and questions of “sick” societies. May be repeated for credit. S/U or letter grading.

234Q. Psychological Anthropology. (4) (Same as Psychiatry M272.) Lecture, three hours. Various psychological issues in anthropology, both theoretical and applied, are surveyed. Topics include such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness processes as they relate to culture. Topics vary from term to term. May be repeated for credit. S/U or letter grading.

234R. Culture, Cognition, and Being in the World. (4) Seminar, three hours. Whether and how culture and thought shape each other is a historically enduring and controversial topic. Focus on work challenging prevailing implicit acceptance of theoretical separation between study of mind and study of culture. S/U or letter grading.

239. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; discussion, one hour. Examination of cross-cultural study of socialization and child training methods, ethnographic data, and theoretical orientations. Emphasis on current research. S/U or letter grading.

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

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.

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234T. Anthropology of Human Body. (2 to 4) Seminar or Lecture and/or Practice. Seminar, three hours. Exploration of how sociocultural and political dynamics shape perceptions of and understandings about the human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

235. The Individual in Culture. (4) (Same as Psychiatry M272.) Seminar, three hours. Designed for graduate students. Letter grading.

236P. Cross-Cultural Studies of Socialization and Children. (4) (Same as Psychiatry M214.) Lecture, three hours. Selected topics in cross-cultural study of socialization and child training methods, ethnographic data, and theoretical orientations. Emphasis on current research. S/U or letter grading.

238A. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) Lecture, three hours. Discussion and practice in various techniques for collecting and analyzing ethnographic field data. S/U or letter grading.

243P. Transcultural Psychiatry. (4) (Same as Psychiatry M222.) Lecture, three hours. Consideration of psychiatric topics in cross-cultural perspective, such as suicide, schizophrenia, homicide, behavioral disorders, “culture specific” syndromes, non-Western psychiatry, and questions of “sick” societies. May be repeated for credit. S/U or letter grading.

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235. The Individual in Culture. (4) (Same as Psychiatry M272.) Seminar, three hours. Designed for graduate students. Letter grading.

236P. Cross-Cultural Studies of Socialization and Children. (4) (Same as Psychiatry M214.) Lecture, three hours. Selected topics in cross-cultural study of socialization and child training methods, ethnographic data, and theoretical orientations. Emphasis on current research. S/U or letter grading.
M247. Topics in Semantics and Pragmatics. (4) (Same as Applied Linguistics and TESL M266.) Seminar, four hours. Required: Applied Linguistics and TESL 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, reportage, and sociolinguistic topics. S/U or letter grading.


M249A-M249B. Ethnographic Methods in Discourse Analysis I, II. (4) (Same as Applied Linguistics and TESL M270A-M270B.) Seminar, four hours. Two-term sequence on ethnographic approaches to recording and analyzing communicative events and their cultural and social contexts, involving student-initiated fieldwork in a community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as a social and cultural practice. M249A Required: course M242 or Applied Linguistics and TESL C260 or Sociology C244A. Devoted to skills related to collecting socially and culturally meaningful data. Letter grading.

M249P. Ethnographic Technologies Laboratory I. (Same as Applied Linguistics and TESL M270P.) Laboratory, four hours. Corequisite: course M249A or Applied Linguistics and TESL M270A. Hands-on mentorship in entering a community, obtaining informed consent, interviewing, note taking, and video-recording verbal interaction. S/U grading.

M249Q. Ethnographic Technologies Laboratory II. (Same as Applied Linguistics and TESL M270Q.) Laboratory, four hours. Corequisite: course M249B or Applied Linguistics and TESL M270B. Hands-on mentorship in editing ethnographic video footage, incorporating video into transcript and analysis of verbal interaction, writing a grant proposal, and assembling a conference presentation. S/U or letter grading.

Social Anthropology


251P. Cultural Ecology. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

252P. Comparative Systems of Social Inequality. (4) Seminar, three hours. Examination in historical and contemporary perspectives of particular systems of structured social inequality based on rank, class, caste, ethnicity, gender, age, sexual preference, disability, etc., to develop a unified theory of social inequality. Examples: from Asian, Pacific, European, African, and American cultures. S/U or letter grading.

252Q. Anthropology of Resistance. (4) Lecture, one hour; discussion, two hours. Preparation: at least one upper division sociocultural anthropology course. Exploration of recent works in anthropology and other disciplines which address practice and resistance, as part of an effort to understand processes that have shaped modern and postcolonial society and culture. Letter grading.

M252S. Constructing Race. (4) (Same as Afro-American Studies M252S.) Seminar, three hours. Examination of social construction of race from anthropological perspective in order to refine understanding of ways this category has had and continues to have concrete impact in the U.S. Exploration of range of topics, including role discipline of anthropology has played in construction of race, representations of race in popular culture, instability of race revealed in passing and debates about multiracial identity, construction of whiteness, and emergence of identity politics. S/U or letter grading.

253. Economic Anthropology. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

254. Kinship. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

255. Comparative Political Institutions. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

255P. Political Economy. (4) Seminar, three hours. Designed for graduate anthropology students. Introduction to range of approaches anthropologists have used to analyze political economy of capitalism in relation to issues of nation and state building, race, colonialism, and transnationalism. S/U or letter grading.

256. Anthropology of Conflict. (4) Seminar, three hours. Open to undergraduates with consent of instructor. Examination of events and institutions associated with large-scale or ongoing conflict in a variety of settings. Particular consideration to roots of violence, violent manifestations and cross-cultural misunderstandings, and nature and content of armed confrontation. S/U or letter grading.

257. Space, Place, and Identity. (4) Seminar, three hours; fieldwork, three hours. Limited to graduate students. Impact of expansion of corporate globalization and neoliberalism on the U.S. has been to create shift from economy and occupational structure based on manufacturing to one based on services. Shift has been accompanied by increasing polarization of jobs by class, with stratrophic compensation at top and poverty-level wages at bottom, with loss of middle-income jobs, leaving society increasingly split between rich and poor. Examination of these changes and how they affect nature of work and career opportunities of workers in the U.S. by gender, race, ethnicity, and immigration status. S/U or letter grading.

258. Work, Gender, and Race. (4) Seminar, three hours; fieldwork, three hours. Limited to graduate students. Impact of expansion of corporate globalization and neoliberalism on the U.S. has been to create shift from economy and occupational structure based on manufacturing to one based on services. Shift has been accompanied by increasing polarization of jobs by class, with stratrophic compensation at top and poverty-level wages at bottom, with loss of middle-income jobs, leaving society increasingly split between rich and poor. Examination of these changes and how they affect nature of work and career opportunities of workers in the U.S. by gender, race, ethnicity, and immigration status. S/U or letter grading.

Applied Anthropology


261Q. Issues in Applied Anthropology. (4) Seminar, three hours. Use of seminar format to explore selected domestic and international problems from applied anthropological perspective. Consideration of history of applied anthropology, ethics, and careers strategies. S/U or letter grading.

263P. Gender Systems. (4) (Formerly numbered 263P) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M263Q. 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. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.

M264. 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: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with a variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotope. Letter grading.

M265. Anthropology of Genetic Knowledge. (2 to 4) (Same as Psychiatry M283.) Seminar, three hours. Exploration of how sociocultural and political dynamics shape our understanding and beliefs about genetic information and how genetic information is used to create conceptions of the self and society. Letter grading.

M266. Health and Culture in the Americas. (4) (Same as Community Health Sciences M260 and Latin American Studies M260.) Lecture, three hours; discussion, one hour. Preparation: bilingual skills (English/Spanish) for Spanish discussion section. Recommended requisite: Community Health Sciences 132, Health issues throughout the Americas, especially indigenous/Alaskan Native traditions. Holistic approach covering politics, economics, history, geography, indigenous rights, maternal/child health, culture. Letter grading.

CM268P. Perspectives on Health of Native North Americans. (4) (Same as American Indian Studies CM268P) Seminar, three hours. Recommended preparation: some knowledge of medical anthropology and/or history and contemporary situation of first peoples of North America. Examination of different perspectives related to health and health care of Native North Americans (within present boundaries of the U.S. and Canada) in relation to cultural, social, political, and economic aspects of changing historical context. Concurrently scheduled with course CM168P. S/U or letter grading.


M269P. Politics of Reproduction. (2 to 4) (Same as Psychiatry M280.) Seminar, three hours. Examination of various ways that power, as it is structured and enacted in everyday activities, shapes human reproductive behavior. Case materials from diverse cultures illuminate how competing interests within households, communities, states, and nations are articulated in reproductive arrangements in society. Letter grading.

C269R. Repatriation of Native American Human Remains and Cultural Objects. (4) Lecture, two hours; discussion, one hour. Examination of various ways that power, as it is structured and enacted in everyday activities, shapes human reproductive behavior. Case materials from diverse cultures illuminate how competing interests within households, communities, states, and nations are articulated in reproductive arrangements in society. Letter grading.

Letter grading.
Regional Cultures
271. Contemporary Problems in Africa. (4) Seminar, three hours. Problems in African 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.

M272. Indians of South America. (4) (Same as Latin American Studies M250A.) Lecture, three hours. Survey of literature and research topics related to indigenous cultures of South America. May be repeated for credit. S/U or letter grading.

273. Cultures of the Middle East. (4) Seminar, three hours. Survey of literature and problems of various cultures of the Middle East. S/U or letter grading.

M276. Japan in Age of Empire. (4) (Same as Asian M292 and History M286.) Seminar, three hours. Designed for graduate students. Since the 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 of study of colonialism. S/U or letter grading.

277. Anthropology of China. (4) Seminar, three hours. Designed for graduate students. Survey of selected literature and current developments in field of Chinese social-cultural anthropology. Main topics include family and interpersonal relations, social differences, local elites and the state, rituals and beliefs, popular culture, consumerism, and cultural globalization. S/U or letter grading.

History, Theory, and Method
281. Selected Topics in History of Anthropology. (4) Lecture, three hours. Particular problems in history of anthropology as dictated by interests of students and faculty. May be repeated for credit. S/U or letter grading.

282. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduate students preparing for fieldwork. Unique position of anthropology among the sciences and resulting problems for scientific research design. Review of typical research problems and appropriate methods. Students prepare their own research designs and present them for class discussion. S/U or letter grading.

283. Formal Methods of Data Analysis in Anthropology. (4) Seminar, three hours. Current topics and issues related to the formal analysis of numerical and representational data of cultural constructs: formal models of kinship terminology, structural models of cognitive systems, graph theoretic models of networks, models of decision making, hierarchical information systems, stability in complex adaptive systems. S/U or letter grading.

M284. Qualitative Research Methodology. (4) (Same as Community Health Sciences M216.) Discussion, three hours; laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grading.

284P. Anthropological Methods and Data Analysis. (4) Seminar, three hours. Limited to graduate students. Recommended preparation: research design course. Hands-on approach to 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.

285. 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/idealist debates, urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.

286P. Selected Topics in Computer Simulation and Modeling. (4) Lecture, three hours. Prerequisite: course 180. Applications of computer simulations and/or models to specific problem areas of interest to anthropologists. Problem areas rotate with each offering and include cognitive ecological, demographic evolutionary, and other theoretical foci. S/U or letter grading.

287. Poststructural Theories. (4) Seminar, three hours. Designed for graduate students. Examination of development and application of poststructural theories in anthropology by exploring interdisciplinary connections, especially as they concern the concept of culture, narrative, ethnographic writing, reflexivity, politics of representation, hierarchy, and study of the self, identity, and the body. S/U or letter grading.

287P. Anthropology and Colonialism. (4) Lecture, three hours. Designed for graduate students. Exploration of unacknowledged nature of colonialism and its cultural manifestations in a variety of geographical areas. Reconsideration of history of anthropological theory, as Talal Asad argues, “anthropology emerged as a distinctive discipline at the beginning of the colonial era.” S/U or letter grading.

M287Q. Native American Historical Demography. (4) (Same as History M260D.) Lecture, two hours; discussion, one hour. Examination of population history of Native Americans prior to and following contacts with Europeans, Africans, and others, circa 1492. Emphasis on number of American Indians and other Native Americans, their decline following European contact, and their recent resurgence. Letter grading.

292. Making Oral Presentations. (4) Lecture/studio presentations, two hours; discussion, one hour. Designed for graduate students. How to organize and present seminar reports, papers at scholarly conferences, and lectures to professional audiences. Opportunity for students to develop their speaking skills through actual practice in workshop atmosphere of mutual support and constructive criticism. S/U or letter grading.

293. Culture, Brain, and Development Forum. (1) 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.

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 the University. May be repeated for credit. S/U grading.
Scope and Objectives

UCLA is a dynamic place to study applied linguistics. The Department of Applied Linguistics and Teaching English as a Second Language offers a Ph.D. in Applied Linguistics and a Master of Arts in Applied Linguistics and Teaching English as a Second Language. Three areas have been identified as integral to a thorough understanding of the field of applied linguistics: language acquisition, language assessment, and discourse and grammar analysis. Program participants are encouraged to study themes within these areas from a variety of perspectives.

Departmental faculty members, as well as professors in the Anthropology, Asian Languages and Cultures, Education, Linguistics, Neurobiology, Psychology, and Sociology Departments, among others, represent a wide range of expertise and experience in language-related research. Their guidance and collaboration with students result in substantial research findings in the areas of specialization within the program, and their participation reinforces the interdisciplinary nature of applied linguistics research. Graduates pursue academic and professional careers at the highest level of service and inquiry.

The goal of the Ph.D. program in Applied Linguistics is to prepare students to investigate language-related problems and issues in the everyday world. This can best be achieved by providing students with a broad background of knowledge about the nature of language and language use as situated in social, discursive, and interactional contexts, along with the skills needed for teaching and conducting research at the university level. The program is designed to foster the mentorship relationship between students and faculty, as students are assigned a faculty mentor with whom they work throughout the program.

The M.A. program in Applied Linguistics and Teaching English as a Second Language (TESL) is designed as a first step in a research career in applied linguistics. It provides both breadth of knowledge in several areas of applied linguistics and the specialized knowledge and skills needed to plan and conduct research in one of the three areas of specialization.

Teacher education is no longer the main focus of the department; however, the department offers exceptional opportunities to students interested in pursuing this area as part of their academic program. Elective courses build on existing knowledge acquired in the required coursework in applied linguistics, and thus provide students with guidance in applying theoretical constructs to real-world classroom settings where language is taught and used. Language education skills provide graduate students with a secure means of financial support during their graduate program, and these skills may open doors to professional opportunities in academic and private sectors once students have completed their degree program. As part of the M.A. and Ph.D. programs, students may complete additional coursework to obtain the graduate-level Certificate in Teaching English as a Second Language.

Language Acquisition

Language acquisition research seeks to (1) describe interlanguage systems, (2) examine underlying cognitive mechanisms that could account for these systems, (3) examine the social, affective, and neurobiological factors that influence second language development, and (4) explore the effect of instruction on the process. Additional areas of inquiry include comparisons between native and non-native linguistic systems and how speakers use them in natural discourse, and explanations for variable success in second language acquisition in terms of the neural underpinnings of language as well as the neural basis for perception, attention, memory, and emotion.

Language Assessment

Language assessment is concerned with the empirical investigation of theoretical issues on the one hand, and with providing useful tools for assessment in applied linguistics on the other. Language assessment research has as its goals the formulation and empirical investigation of theories of language assessment performance and use, the empirical investigation of the ways in which performance on language assessments is related to communicative language use in its widest sense, and the fairness of the uses that are made of language assessment results.

Discourse and Grammar Analysis

Discourse and grammar analysis is concerned with how language users produce and interpret language in context. Discourse analysts research the linguistic structures of speech acts, conversational sequences, speech activities, oral and written texts, and stance (among other constructs) and seek to relate these constructs to social and cultural norms, preferences, and expectations. The field articulates how lexico-grammar and discourse systematically vary across social situations and at the same time help to define those situations. Discourse analysis may be carried out as an end in itself or a tool contributing to research in language acquisition or language assessment. A limited number of teaching assistantships are available to qualified M.A. and Ph.D. students. For information and applications, write to the Academic Coordinator, ESL Service Courses, 3300 Rolfe Hall, UCLA, Box 951531, Los Angeles, CA 90095-1531.

Undergraduate Study

Language, Interaction, and Culture Minor

The Language, Interaction, and Culture minor is designed to train students in the naturalistic study of discourse in everyday interaction.

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 minor adviser, 3300A Rolfe Hall, (310) 825-4631.

Required Lower Division Courses (8 units): Two courses from the following, with each course from a different group: group 1 — Anthropology 33 or 34; group 2 — Sociology 3 or 24; group 3 — Linguistics 1 or 2 or 20.

Required Upper Division Courses (28 units): Applied Linguistics and Teaching English as a Second Language M194 and six courses from the following, with at least one course from each group: group 1 — Anthropology M140, 141, 142A, 143, C144, M145, 146; group 2 — Sociology CM124A, CM124B, CM125, 126, M176; group 3 — Applied Linguistics and Teaching English as a Second Language 100, C116, 121, M125, M161, 170, Chicana and Chicano Studies 160, 161, 162, Japanese M120, CM122, Linguistics 114, 170.

No more than two upper division elective courses may be applied toward both this minor and a major or minor in another department or program. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Teaching English as a Second or Foreign Language Minor

The Teaching English as a Second or Foreign Language minor provides students with an overview of current second language pedagogical theories and practices; the experience of observing the second language acquisition process both in and out of the classroom; a supervised practicum experience in a variety of second language classroom settings; and an opportunity to reflect on the interaction of theory and practice in the teaching of English as a second or foreign language.

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 minor adviser, 3300A Rolfe Hall, (310) 825-4631.

Required Lower Division Course (4 units): Linguistics 20 with a grade of C or better.

Required Upper Division Courses (28 units): (1) Three pedagogical foundation courses from Applied Linguistics and Teaching English as a Second Language 101W or C110, C116,
C118B; (2) a minimum of two pedagogical skill courses from C111, C112, C113, C115A, C117; (3) a maximum of two courses in language and/or educational issues from English 121, English Composition 120A, 120B, 132C, Linguistics M10, 130, C140, 175. Students may complete all requirements for the minor by taking courses in items 1 and 2 above.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program, 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 minor adviser before enrolling in any courses for the minor.

All minor courses must be taken for a letter grade, with 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.

English as a Second Language

English as a second language (ESL) courses are only for students whose native language is not English. Placement in these courses is established on the basis of the UCLA English as a Second Language Placement Examination (ESLPE).

The ESLPE is required of all entering UCLA students whose first language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement. 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 ESLPE.

The following nonnative-speaking students are exempt from the ESLPE: (1) first-year undergraduate students exempted based on their performance on the Analytical Writing Placement Examination (see Entry-Level Writing in the Undergraduate Study section of this catalog), (2) undergraduate transfer students exempted on the basis of their transcript evaluation (see the Undergraduate Study section of this catalog), and (3) graduate students who hold a bachelor's or higher degree from a university in a country where the official language is English and in which English is the spoken tongue and the medium of instruction (see International Applicants in the Graduate Study section of this catalog).

All other students must sit for the ESLPE and may be required to complete one or more ESL courses to satisfy the ESL requirement. Failure to sit for the ESLPE results in a hold on student records.

Undergraduate students may take the ESLPE once only. 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 the subsequent term only (retaking the examination in the same term is not counted as a valid result). In cases where students retake the examination in their second term of study, the most recent examination score is held to be valid. Unauthorized retakes result in an invalid examination score.

Results of the ESLPE are used to determine placement into the required sequence of ESL courses or exemption from the ESL requirement. If held for the ESL requirement, students must begin taking courses during their first term in residence at UCLA and must complete the courses in sequence. The required sequence for undergraduates is English as a Second Language 33A, 33B, 33C, and 35; each course must be passed with a grade of C or better (C– or a Passed grade is not acceptable). The required sequence for graduate students is English as a Second Language 33A, 33B, and 33C; each course 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. If students do not achieve a minimum score on the placement examination, they may be required to spend a term studying elementary English exclusively, through UCLA Extension, before retaking the ESLPE and continuing through the appropriate sequence of courses at UCLA.

College of Letters and Science undergraduates may satisfy the Writing I requirement by completing course 36 with a grade of C or better (C– or a Passed grade is not acceptable). Admission into course 36 is determined by completion of course 35 with a passing grade or proficiency demonstrated on the ELSPE.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees


Applied Linguistics

Graduate Courses

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA program adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study. (4 to 8) Tutorial, to be arranged. Limited to Ph.D. students. Independent study in an area of applied linguistics. 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: completion of at least six courses of the 32-unit requirement for Ph.D. May not be applied toward the 32-unit requirement. May be repeated for credit. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (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.

Applied Linguistics and Teaching English as a Second Language

Upper Division Courses

100. Discourse and Society. (4) Lecture, four hours; discussion, two hours. Important contemporary perspectives for study of language in its social and cultural matrix. Topics include conversational organization, narrative, repair and grammatical organization, language 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.

101W. Introduction to Language Learning and Language Teaching. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 101. Exploration of skills and conditions involved in successful second and foreign language learning; application of this knowledge in development of framework for teaching second and foreign languages. Satisfies Writing II requirement. Letter grading.

C110. Methodology for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: Linguistics 20. Survey of theory and practice in teaching second/foreign languages, including (1) past and present methods used to teach second/foreign 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, implementation, and evaluation of second/foreign language programs. Concurrently scheduled with course C210. P/NP or letter grading.

C111. Writing for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101W or C110. Survey of theoretical and methodological issues related to second language written discourse and composition for second language writers, including critical examination of classroom research and overview of issues in evaluating and responding to written text. Concurrently scheduled with course C211. P/NP or letter grading.
112. Reading for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101W or C110. Survey of theoretical and methodological issues related to second/foreign language reading, including critical examination of reading research and evaluation of research paradigms and classroom materials. Concurrently scheduled with course C212. P/NP or letter grading.


114. Listening and Speaking for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course 101W or C110. Survey of theoretical and methodological issues related to second/foreign language spoken discourse, including critical examination of research paradigms and classroom materials. Concurrently scheduled with course C214. P/NP or letter grading.


118A. Fundamentals of Second/Foreign Language Teaching. (4) Seminar, four hours. Requisite: course 101W or C110. Designed for students intending to participate in micro-teaching for beginning 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 transitions between them. Concurrently scheduled with course C218A. P/NP or letter grading.

118B. Second/Foreign Language Teaching Practicum. (4) Formerly numbered C118B.) 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 in research to solve problems faced in current research in language education and language pedagogy. Concurrently scheduled with course C218B. P/NP grading.


121. Language Learning and Immigrant Experience. (4) Seminar, four hours. Exploration of value and relevance of linguistics anthropological, ethnomethodological, sociocultural, pragmatic, and sociolinguistic approaches to study of immigration and second language acquisition. Readings from language learning memoir provide literary account of immigrant experience which illustrates intimate relationship between language and culture in second language learning. Letter grading.

125. Language Socialization. (Formerly numbered 125.) (Same as Anthropology M142E.) Seminar, four hours. Exploration of process of socialization through language, and socialization to use language across life span, across communities of practice within a single society, and across different ethnic and socioeconomic groups. Examination of ways in which verbal interaction between novices and experts is structured linguistically and culturally. Letter grading.


135. Foundations of Language Acquisition. (4) Seminar, four hours. Requisite: Linguistics 20. Introduction to theoretical and empirical research in language acquisition and second language acquisition. 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 C201. Letter grading.


161. Talk and the Body. (Formerly numbered 161.) (Same as Anthropology M14B and Communication Studies M123.) Seminar, four hours. Relationship between language and human body raises a host of interesting topics. New approaches to phenomena such as embodiment become possible when the body is analyzed, not as an isolated entity, but as a visible agent whose talk and action are lodged within both social and non-sociocultural systems. Examination of embodied knowledge in a single society, and across different ethnic and socioeconomic groups. Examination of ways in which verbal interaction between novices and experts is structured linguistically and culturally. 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 framework that considers language as a social and cultural practice. Letter grading.

197. Individual Studies in Applied Linguistics. (4) Formerly numbered 199.) Tutorial, four hours. Limit- ed to juniors/seniors. Individual intensive study for under- graduate students who desire more advanced or specialized treatment of issues in applied linguistics and/or teaching English as a second/foreign language beyond those covered in current course offerings. Scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter re- quired. May be repeated for credit. Individual contract required; see graduate student advisor. Letter grading.

Graduate Courses


202. Foundations of Language Acquisition. (Formerly numbered 202.) Seminar, four hours. Requisite: Linguistics 20. Introduction to theoretical and empirical research in language acquisition and second language acquisition. 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.


207. Ethnography of Communication. (4) Same as Anthropology M242.) Lecture, three hours. De- signed for graduate students. Seminar devoted to ex- amining representative scholarship from fields of sociolinguistics and ethnography of communication. Particular attention to theoretical developments in- cluding 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 behavior. S/U or letter grading.

208. Foundations of Discourse Analysis. (Formerly numbered 208.) Seminar, four hours. Requisite: Linguistics 20. Survey course to introduce basic te- nets of discourse analysis, including discourse analy- sis and syntax, planned and unplanned discourse, conversational analysis, analysis of speech events, unequal power discourse, and analysis of classroom discourse. Letter grading.

C211. Writing for Second/Foreign Language Education. (4) Lecture, four hours. Requisite: course C210. Survey of theoretical and methodological issues related to second language written discourse and composition for second language writers, including critical examination of research paradigms and overview of issues in evaluating and responding to written text. Concurrently scheduled with course C111. Additional assignments required of graduate students. S/U or letter grading.


C218A. Fundamentals of Second/Foreign Language Teaching. (4) Seminar, four hours. Requisite: course C210, C216. Theoretical and practical concerns regarding second/foreign language teaching, with emphasis on fieldwork experiences and grounding 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 C118A. S/U or letter grading.

C218B. Second/Foreign Language Teaching Practicum. (4) (Formerly numbered C218.) Seminar, two hours; fieldwork, four hours. Requisite: courses C210, C216. Theoretical and practical concerns regarding second/foreign language teaching, with emphasis on fieldwork experiences and grounding in microcomponents of effective second/foreign language teaching. Concurrently scheduled with course C118B. S/U grading.


C222. Discourse-Centered Language Learning. (4) Requisite: course C202. Case-study and project-based research seminar on classroom language learning with authentic discourse (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 acquisition research. Letter grading.

C223. Topics in Psycholinguistics. (4) Requisite: course C220. Detailed examination of specialized topics in psycholinguistics. Topics vary from year to year and may include language and cognitive science, types and theories of bilingualism, learning theories and their influence on language teaching. May be repeated for credit with topic change. Letter grading.

C224. Language Socialization. (4) (Same as Anthropology M248.) Seminar, four hours. Requisite: course C202. Emphasizes socialization through language and socialization to use language across the life span, across communities of practice within a single society, and across different ethnic and socioeconomic groups. Emphasis on interaction between novices and experts is structured linguistically and culturally. S/U or letter grading.

C225. Language Assessment. (4) Requisite: course C202. Designed to explore current issues in language assessment from both theoretical and practical perspectives and to provide actual experience in addressing a current issue. Specific topics vary according to trends in the field. May be repeated for credit with topic change. S/U or letter grading.
M270A-M270B. Ethnographic Technologies Laboratory I. (4) (Same as Anthropology M249P.) Laboratory, four hours. Corequisites: course M270A or Anthropology M249A. Hands-on mentorship in editing ethnographic video footage, including video editing, frame grabbing into transcript and analysis of verbal interaction, writing a grant proposal, and assembling a conference presentation. Letter grading.

M270Q. Ethnographic Technologies Laboratory II. (4) (Same as Anthropology M249Q.) Laboratory, four hours. Corequisites: course M270B or Anthropology M249B. Hands-on mentorship in editing ethnographic video footage, including video editing, frame grabbing into transcript and analysis of verbal interaction, writing a grant proposal, and assembling a conference presentation. Letter grading.


272. Grammar and Discourse. (4) (Same as Anthropology M246A.) Seminar, four hours. Requisite: course C201. Seminar on grammar and discourse, with a focus on the linguistic and social significance of grammatical and semantic categories. 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 the University. May be repeated for credit. S/U grading.

400. Applied Linguistics and TESL M.A. Colloquium. (4) Discussion, four hours. 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. Candidates 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 Assistants. (2 or more) Seminar, two or more hours. Preparation: appointment as a teaching assistant. Orientation, preparation, and supervision of graduate students who have responsibility for teaching ESL courses at UCLA. Syllabus revision and materials preparation may not be applied toward degree requirements for M.A. or certificate in TESL or Ph.D. in Applied Linguistics. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study. (4) Tutorial, 10 to 12 hours. Independent study course for graduate students who desire more advanced or specialized treatment of issues in applied linguistics and/or teaching English as a second/foreign language beyond those covered in current course offerings. May be repeated for credit. See graduate student adviser for course contract. Letter grading.

598. M.A. Research and Thesis Preparation. (4 to 8) Limited to graduate students. Survey of research needs and thesis preparation. Includes optional section on experimental design and statistical methods in Fall Quarter. Credit (4 units) toward degree is allowed only once, but all M.A. candidates must enroll in course each term they are registered and engaged in thesis preparation. S/U grading.

Course List

Language Acquisition

Applied Linguistics and Teaching English as a Second Language

221. Experiential Seminar: Second Language Learning
222. Discourse-Centered Language Learning
224. Language Socialization
229. Current Issues in Language Acquisition
230. Advanced Seminar: Interlanguage Analysis
231. Crosslinguistic Topics in Language Acquisition

Education

217D. Language Development and Education
227B. Research on Cognitive and Language Characteristics of Exceptional Individuals

Linguistics

213A. Grammatical Development
213B. Brain Bases for Language
233. Language Development
235S. Neurolinguistics
254A. Topics in Linguistics
259A, 259B. Topics in Linguistics II: Proseminar

C292.
264A-264B-264C. Seminars: Special Topics in Linguistic Theory
Psychiatry and Biobehavioral Sciences
257A-257B-257C. Communication Disorders Associated with Developmental Disabilities and Psychiatric Disorders
Psychology
240A-240B. Developmental Psychology
242F. Seminar: Developmental Psychology — Development of Language and Communication
260A-260B-260C. Proseminars: Cognitive Psychology
268B. Seminar: Human Information Processing — Human Learning and Memory
268D. Seminar: Human Information Processing — Language and Cognition

Language Assessment
Applied Linguistics and Teaching English as a Second Language
240. Design and Development of Language Assessment Procedures
241. Analysis and Use of Language Assessment Data
242. Experimental Design and Statistics for Applied Linguistics
249. Current Issues in Language Assessment
250. Advanced Seminar: Language Assessment
258. Assessment Laboratory

Education
200B. Survey Research Methods in Education
200C. Analysis of Survey Data in Education
202. Evaluation Theory
211A. Measurement in Education: Underlying Theory
211B. Item Response Theory
218. Measurement of Educational Achievement and Aptitude
219. Laboratory: Advanced Topics in Research Methodology
221. Computer Analyses of Empirical Data in Education
222C. Qualitative Data Reduction and Analysis
230A. Introduction to Research Design and Statistics
230B-230C. Linear Statistical Models in Social Science Research
230X. Applied Research Design and Statistics for Social Sciences
231A. Multivariate Analysis
231B. Factor Analysis
231C. Analysis of Categorical and Other Nonnormal Data
231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis
M231E. Statistical Analysis with Latent Variables

Psychology
250A, 250B. Advanced Psychological Statistics
252A. Multivariate Analysis
252B. Discrete Multivariate Analysis
253. Factor Analysis
254B. Cluster Analysis
255A. Quantitative Aspects of Assessment
M257. Multivariate Analysis with Latent Variables
259. Quantitative Methods in Cognitive Psychology

Discourse and Grammar Analysis
Anthropology
204. Core Seminar: Linguistic Anthropology
M234Q. Psychological Anthropology
M241. Topics in Linguistic Anthropology
M242. Ethnography of Communication
245. Linguistic and Intracultural Variation
M246A. Grammar and Discourse
M246B. Grammar and Discourse Practicum
M247. Topics in Semantics and Pragmatics
M249A-M249B. Ethnographic Methods in Discourse Analysis I, II

Applied Linguistics and Teaching English as a Second Language
208. Foundations of Discourse Analysis
263. Crosslinguistic Topics in Functional Grammar I: Typology
264. Crosslinguistic Topics in Functional Grammar II: Discourse
265. Topics in Functional Grammar
M266. Topics in Semantics and Pragmatics
268. Crosslinguistic Research Laboratory
269. Current Issues in Discourse Analysis
M270A-M270B. Ethnographic Methods in Discourse Analysis I, II
271. Advanced Seminar: Cohesion Analysis of English Structure
M272. Grammar and Discourse
M273. Grammar and Discourse Practicum
274. Advanced Seminar: Contextual Analysis of English Structure
278. Discourse Laboratory

Education
204D. Minority Education in Cross-Cultural Perspective

English
241. Studies in the Structure of the English Language
German (Germanic Languages)
C238. Linguistic Theory and Grammatical Description

Japanese (Asian Languages)
C222. Structure of Japanese I
C223. Structure of Japanese II
224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics
225A-225B. Seminars: Linguistic Analysis of Japanese Narratives
226. Survey of Functional Linguistics
CM227. Contrastive Analysis of Japanese and Korean

Korean (Asian Languages)
C220. Structure of Korean
224A-224B. Seminars: Selected Topics in Korean Linguistics

Linguistics
201. Phonological Theory II
202. Language Change
203. Phonetic Theory
204. Experimental Phonetics
205. Morphological Theory
206. Syntactic Theory II
207. Semantic Theory II
C209A, 209B. Computational Linguistics I, II
210A, 210B. Field Methods I, II
214. Survey of Current Syntactic Theories
215. Syntactic Typology
220. Linguistic Areas
225. Linguistic Structures
251A, 251B. Topics in Phonetics and Phonology
252A, 252B. Topics in Syntax and Semantics
253A, 253B. Topics in Language Variation
254A, 254B. Topics in Linguistics
256A, 256B. Topics in Phonetics and Phonology II: Proseminar
257A, 257B. Topics in Syntax and Semantics II: Proseminar
258A, 258B. Topics in Language Variation II: Proseminar
259A, 259B. Topics in Linguistics II: Proseminar
263A-263B-263C. Seminars: Language Variation (only one of these may be applied toward the 32-unit requirement)

Sociology
C244A-C244B. Conversational Structures I, II
C258. Talk and Social Institutions
266. Selected Problems in Analysis of Conversation

Spanish (Spanish and Portuguese)
209. Dialectology
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

English as a Second Language
Lower Division Courses
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 an audience, ask and answer questions, participate appropriately in conversations with members of the 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 demonstrated 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. Emphasis on reading comprehension, vocabulary development, and composition techniques, with additional work on structure and oral skills. To satisfy English as a Second Language requirement, 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 Language requirement, students must select letter grading. P/NP (undergraduates), S/U (graduates), or letter grading.

34. Public Speaking for Academic Purposes. (4) Lecture, four hours. Requisite: course 33B or proficiency demonstrated on English as a Second Language Placement Examination. Designed to help nonnative speakers of English communicate effectively in academic and professional settings. Development of oral skills that prepare nonnative speakers of English to present ideas extemporaneously, lead class discussions, give lectures or speeches before an audience, respond to questions posed by the audience, and improve through self-evaluation of speech. P/NP (undergraduates), S/U (graduates), or letter grading.
35. Approaches to University Writing for ESL Students. (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. Composition skills for ESL students, with focus on writing process, grammatical structures key to clear and effective style, mechanics of writing, and practice with major forms of academic writing. Additional emphasis on academic reading skills. Completion of course with a grade of C or better satisfies Entry-Level Writing requirement. Letter grading.


37. English Grammar and Style for Academic Purposes. (4) Lecture, four hours. Requisite: course 33B (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Review of formal and informal usage and use of common 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), S/U (graduates), or letter grading.

38. Pronunciation: Stress and Intonation in English. (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. Special focus on three important aspects of pronunciation: stress, rhythm, and intonation. P/NP (undergraduates), S/U (graduate), 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. Designed to aid international graduate students who wish to become teaching assistants, with focus on development of general communicative competence, fluency in classroom discourse, and improvement of accuracy of pronunciation and spoken grammar. Use of specialized pronunciation software in computer laboratory. P/NP (undergraduates), S/U (graduate), or letter grading.

39B. Communication Strategies for International Teaching Assistants. (4) Lecture, four hours. Recommended for individuals whose Test of Spoken English (TSE) score is 40 or above or whose UCLA Test of Oral Proficiency (TOP) score is 6.4 or above. Designed to help nonnative speakers of English communicate effectively as teaching assistants, with focus on presentation skills, classroom language fluency, and pronunciation accuracy. P/NP (undergraduates), S/U (graduate), 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 assistants. Activities include interactive teaching demonstrations and leading/participating in discussions. Emphasis on self-fee, peer and instructor feedback. P/NP (undergraduates), S/U (graduate), or letter grading.

Upper Division Courses

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 an appropriate Composition Placement Test score. Focus on production of fully developed, stylistically sophisticated expository and argumentative essays based on complex academic readings. Additional emphasis on grammatical structure and style. P/NP (undergraduates), S/U (graduate), or letter grading.

107. Advanced Reading and Vocabulary for ESL Students. (4) Lecture, four hours. Requisite: course 33C or 35 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Instruction in and practice of academic reading skills using authentic university texts. Focus on improving reading rate and comprehension, expansion of academic vocabulary, and developing critical reading skills. P/NP (undergraduates), S/U (graduate), or letter grading.

108. Pronunciation: Sound System of English. (4) (Formerly numbered 103.) Lecture, four hours. Requisite: course 33B or 36 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Detailed and systematic study of the sounds of American English and in which they are put together to make speech, applied to improvement of student's own accent. P/NP (undergraduates), S/U (graduate), or letter grading.

109. Introduction to Literature for ESL Students. (4) Lecture, four hours. Requisite: course 33C or 35 (may be taken concurrently) or proficiency demonstrated on English as a Second Language Placement Examination. Selections from English and American literature presented so as to make full allowance for students' linguistic and cultural problems and to contribute to increasing command of the English language. P/NP (undergraduates), S/U (graduate), or letter grading.

197. Individual Studies in English as a Second Language. (4) (Formerly numbered 199.) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study for undergraduate and graduate students who desire more advanced or specialized treatment of issues in English as a second language beyond those covered in current course offerings. 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 (undergraduates), S/U (graduate), or letter grading.

ARCHAEOLOGY

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Lothar von Falkenhausen, Ph.D. (Art History)
Thomas A. Wake, Ph.D.
Willemina Z. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives

The interdisciplinary program offers M.A. and Ph.D. degrees in Archaeology. It brings together interests and specialties represented 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 archaeology students whose academic goals cannot be met within any single department and who, consequently, require an individually designed plan of study combining academic preparation in two or more departments. Applications are especially encouraged from students whose interests may form bridges with disciplines and departments not offering archaeology (e.g., botany, chemistry, geology, mathematics, statistics, zoology, etc.). There are opportunities for participation in a variety of field, laboratory, and computer studies.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Archaeology Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Archaeology but does not encourage applicants who seek only an M.A. degree.

Archaeology

Upper Division Courses

C110. Archaeological Materials Identification and Characterization. (4) Lecture, one hour; laboratory, two hours. Laboratory-oriented introduction for archaeologists to identification and quantitative description of solid materials, especially metals, ceramics, and other inorganic and some organic substances. Concurrently scheduled with course C210. P/NP or letter grading.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C259. P/NP or letter grading.
C180. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory. Overview of the 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 swordmaking, 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. (6-6) (Same as Anthropology M201A-M201B.) Seminar, three hours. Required of all students. Seminar discussions will be based on carefully selected list of 30 to 40 major archaeology works. These compulsory core seminars provide students with foundation in breadth of knowledge required of a professional archaeologist. Archaeological historiography, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretative strategies. May be repeated for credit with consent of adviser. S/U or letter grading.

M201C. Regional Analysis in Archaeology. (4) (Same as Anthropology M211.) Lecture, three hours. Survey of analytical methods used in archaeology to study present and past human systems and cultures. Topics may be one of the following: zoological archaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with consent of adviser. 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. Topics may be one of the following: zoological archaeology, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with consent of adviser. S/U or letter grading.

M205B. Intensive Laboratory Training in Archaeology. (6) (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 consent of adviser. S/U or letter grading.


M214. Comparative Study of Ancient States. (4) (Same as Anthropology CM214S.) Lecture, three hours. Comparative anthropological study of first complex societies in the Near East, Mesoamerica, and the Andes. Topics may include Egyptian, Urartian, Hittite, Mayan, Wari, and Tiwanaku, with focus on political and economic structures of these societies and on causes of state development and collapse. S/U or letter grading.

220. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Open to undergraduates with consent of instructor. Special topics on theoretical subjects in archaeology such as new strategies, synthesis, or current work by core faculty of program or special visiting scholars. May be repeated for credit with topic change. 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 stratigraphic processes used to be used in recovery of embedded cultural materials. Study of issues covered in the literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as stratigraphy and pedology with the help of specialists. S/U or letter grading.

C280. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian high-tin bronze alloys, bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C180. Letter grading.

Methodology and History

Ancient Near East (Near Eastern Languages)

261. Practical Field Archaeology

Anthropology

M115A-M115B. Historical Archaeology

115P. Archaeological Field Training

C115R. Strategy of Archaeology

117. Archaeological Laboratory Methods

117P. Selected Laboratory Topics in Archaeology

117Q. Intensive Laboratory Training in Archaeology

121A. Primate Fossil Record

121B. Australopithecines

121C. Evolution of Genus Homo

158. Hunting and Gathering Societies

180. Quantitative Methods in Anthropology

183. History of Archaeology

M186. Models and Modeling in Anthropology

210. Analytical Methods in Archaeological Studies

M211. Regional Analysis in Archaeology

217. Explanation of Societal Change

221A-221B. Fossil Evidence for Human Evolution

283. Formal Methods of Data Analysis in Anthropology

Art History

C203A-C203B. Museum Studies

265. Fieldwork in Archaeology

New World

Anthropology

113P. Archaeology of North America

113Q. Prehistory and Ethnography of California

113R. Southwestern Archaeology

114P. Ancient Civilizations of Mesoamerica

114Q. Topics in Archaeology of Mesoamerica

114R. Ancient Civilizations of Andean South America

212P. Selected Topics in Hunter/Gatherer Archaeology

214. Selected Topics in Prehistoric Civilizations of the New World

215. Field Training in Archaeology

219. Complex Hunters/Gatherers in Theoretical Perspective

Art History

C117A. Pre-Columbian Art of Mexico

C117B. Pre-Columbian Art of the Maya

C117C. Pre-Columbian Art of the Andes

118A. Arts of Oceania

118D. Arts of Native North America

220. Oceanic, Pre-Columbian, African, and Native North American Art

Old World: Africa

Art History

119C. Arts of Sub-Saharan Africa

220. Oceanic, Pre-Columbian, African, and Native North American Art

History

M164A. Topics in African History: Prehistoric Africa — Technological and Cultural Traditions

191A-191O. Undergraduate Variable Topics Seminars

201A-201U. Topics in History

Old World: Europe

Anthropology

112. Old Stone Age Archaeology
ARCHITECTURE AND URBAN DESIGN

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Assistant Professor
Mark Lee, M.Arch.
Adjunct Professor
Alan Locke, M.Sc.

ARCHITECTURE AND URBAN DESIGN

Scope and Objectives

The Department of Architecture and Urban Design at UCLA offers four degree programs tailored to the needs of different groups of students: M.Arch. I, M.Arch. II, M.A., and Ph.D. M.Arch. I is a three-year first professional degree program which is 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 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, comprise an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In most 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. Urban Planning M.A.) is also offered.
Architecture and Urban Design

Upper Division Courses

101A-101B. History of Architecture and Urban Design. (4-4) (Formerly numbered 194A-194B.) Lecture, three hours. Consideration of architectural and urban phenomena, their theoretical, philosophical, and sociopolitical contexts, including issues of gender and diversity. Letter grading. 101A. Introduction to history of architecture and urban design from prehistory to age of mannerism. Discussion of world at large, analyzing synchronic architectural and urban solutions. 101B. Introduction to history of architectural and urban environments from Baroque period to the present.

102. Introduction to Representation. (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 Rhinoceros. Offered in summer only. Letter grading.

103. Introduction to Architectural Design. (6) Studio, 18 hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to architectural design princi- ples and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization of repetition, 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.

M130. Living Vernacular. (4) (Formerly numbered M195.) (Same as World Arts and Cultures M130.) Lecture, three hours. Survey of array of spaces and places from a cross-cultural or comparative perspective and with a performance emphasis, which means focus on mutual interaction of human beings and their created environments. Emphasis on "common," "ordi- nary," "everyday" non-formal and non-built environments, which are built and used by members of small-scale, "traditional," and "transitional" communi- ties around the world. P/NP or letter grading.

CM153. Introduction to Sustainable Architecture and Community Planning. (4) (Formerly numbered CM191.) (Same as Environment M153.) Lecture, three hours; outside study, nine hours. Focus on sustainable design of buildings and planning of communities. Emphasis on energy effi- ciency, renewable energy, and appropriate use of re- sources, including materials, operations, and components. Offered in summer only. Letter grading.

199. Directed Research or Senior Project in Architec- ture and Urban Design. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised indi- vidual research in their theoretical, philo- sophical, and sociopolitical contexts, including issues of gender and diversity. Letter grading.

Graduate Courses

M201. Theories of Architecture. (4) (Formerly num- bered 286A.) (Same as Urban Planning M201.) Lecture, three hours. Exploration of conceptual and his- torical structures that shape current issues in architec- tural theory. Readings in primary texts serve as framework for understanding the nature of specula- tory inquiry in an 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 theo- retical aspects of computer-aided architecture design microcomputer skills. Applications selected are com- monly found in professional offices. Two- and three-di- mensional representation (i.e., painting, drafting, multi- media, hypermedia, etc.). Letter grading.

M225A-M225B-M225C. Fundamentals of Architectur- etoics. (4-4-4) (Same as Design | Media Arts CM221, CM222, CM223.) Lecture, three hours; out- side study, nine hours. Inquiry concerning architec- tural design and a spatial configuration of spaces and a mathematical viewpoint. May be repeated for credit with consent of adviser. S/U or letter grading.


M226B. Introduction to Computer-Aided Architec- tural Design, Three-Dimensional. (4) (Formerly numbered 226B.) (Same as Urban Planning M226B.) Lecture, three hours; laboratory, one hour. Concepts of three-dimensional space, modeling, and virtual re- ality; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization of artifacts, in- cluding realistic rendering and animation. Letter grading.

M227A. Programming Computer Applications in Architec- ture and Urban Design. (4) (Same as De- sign | Media Arts CM241.) Lecture, three hours; out- side 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 let- ter grading.

M227B. Introduction to Geometric Modeling. (4) (Same as Design | Media Arts CM242.) Lecture, three hours; outside study, nine hours. Requisite: course M227A. Survey of geometric and three-di- mensional modeling, with emphasis on implementa- tion of three-dimensional solids constructions and ed- iting operations. Basic representations and opera- tions on shapes and solids. 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 CM243.) Lecture, three hours; outside study, nine hours. Requisite: course M227A or knowledge of C++ programming lan- guage. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues relevant to building software tools for com- putting techniques in urban planning and architecture de- sign. May be repeated for credit with consent of ad- viser. S/U or letter grading.

227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially required. Knowledge representation, abstractions, and constraints. Logical structure of design information. Development of knowledge used in areas of design, how it can be identified, analyzed, and stored. Letter grading.

M247A. Introduction to Sustainable Architecture and Community Planning. (4) (Formerly numbered C247A.) (Same as Urban Planning M247B.) Lecture, three hours. Relationship of built environment to natural environment. Emphasis on the development of design approaches in urban planning and architecture with focus on sustainable design of buildings and planning of communities. Emphasis on energy effi- ciency, renewable energy, and appropriate use of re- sources, including materials, operations and components. Concur- rently scheduled with course CM153. Letter grading.

M271. Elements of Urban Design. (4) (Formerly numbered 271.) (Same as Urban Planning M272.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidi- plinary approach leading to understanding of political, socioeconomic, and technological framework of urban systems and its 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. In- troduction to real estate development process specifically as it relates to urban design, and to a set of current spatialized concepts. Theoretical aspects of urban design with an emphasis on financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate de- velopment process with proposed design solutions, which are interactively modified to meet economic feasibility tests. S/U or letter grading.

286. Roman Architecture and Urbanism. (4) (For- merly numbered 286A-286B.) Lecture, three hours. Examination of architectural and urban developments during Roman period, from archaic age to late Em- pire. Built environments of ancient world investigated from various perspectives with consideration to pro- gramming, symbolism, and viewing, as well as to technological, aesthetic, and political factors. S/U or letter grading.

288. Renaissance Architecture and Urbanism. (4) (Formerly numbered 288A-288B.) Lecture, three hours. Examination of architectural developments from the 15th to 17th century. Focus on Italian peninsula, and extending to entire Mediterranean ba- sin. Analysis of individual cities and landscape designs to reveal changing cultural and theo- retical values, as well as specific aesthetic and icono- graphic content. S/U or letter grading.

289. Special Topics in Architecture and Urban De- sign. (4) (Formerly numbered 289A-289B.) Lecture, three hours. Focus on critical studies in architectural and urban planning history. Selection of topics initiated by students, student teams, or faculty directed by a faculty member. May be repeated for credit.

290. Special Topics in Critical Studies in Architec- tural Culture. (6) Lecture, three hours; discussion, one hour; outside study, 11 hours. Designed for grad- uate students. Exploration of how architecture oper- ates in relation to wider cultural, historical, and theo- retical issues. May be repeated for a maximum of 30 units. Letter grading.

291. Theory of Architectural Programming. (4) Lecture, three hours. Exploration of concepts and methods of architectural programming and its interre- lation to design process; planning of design process; various techniques for determination of program contents, basic conditions, resources, and constraints; identification of solution types for given situations.

M293. Politics, Ideology, and Design. (4) (Former- ly numbered 293.) (Same as Urban Planning M294.) Lecture, three hours. Exploration of cultural and polit- ical context of architecture and planning work. Exami- nation of theory and practice from variety of perspec- tives. Study of relationship to a set of current contextualized concepts and to a set of current spatialized concepts. Consider- ation of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape de- sign process. Letter grading.

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294A-294B. Environmental Psychology. (4-4) Lecture, three hours. Introduction to models, concepts, and theories concerning impact of the environment on human behavior, perception, and thought. Review of research results concerning space perception, cognitive mapping, preferences and attitudes toward the environment, effects of crowding and stress, personal space, and territoriality.

296. Proseminar: Critical Studies in Architectural Culture. (4) Seminar, three hours. Orientation for Ph.D. students to tradition of architectural theory, scholarship, and research and to current research directions and questions, through intensive reading and critical discussion.

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 the University. May be repeated for credit. S/U grading.

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414, or M.Arch. II). Students may choose (through a lottery) from a number of different projects 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 studios for M.Arch. I students; satisfactory completion of Advanced Studio (courses 403A, 403B) for M.Arch. II students. Students may choose (through a lottery) from a number of different advanced studio projects focusing on special 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-403C. Research Studios. (2-2-6) For courses 403A, 403B: seminar, three hours; outside study, three hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414, 415) or M.Arch. II. Students may choose (through a lottery) from a number of different projects focusing on special topics in architectural and urban design to be offered by faculty members. Preparation: satisfactory completion of Intermediate-Level Studios (courses 412, 413, 414, 415) or M.Arch. II. Students may choose (through a lottery) from a number of different projects focusing on special 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.

437. Building Construction. (4) Seminar, three hours; outside study, six hours. Preparation: satisfactory completion of Intermediate-Level Studios (courses 412, 413, 414, 415) or M.Arch. II. Students may choose (through a lottery) from a number of different projects focusing on special 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.

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Catherine S. Opie, M.F.A.
Lari G. Pittman, M.F.A.
Charles R. Ray, M.F.A.
Adrian A. Saxe, B.F.A.
James Welling, M.F.A.
Patricia A. Wickman, M.F.A.

Professors Emeriti
Samuel Amato, B.F.A.
William J. Bridge
Raymond B. Brown, M.A.
Christopher L. Burden, M.F.A.
Art

Lower Division Courses

1A. Drawing. (4) Studio, eight hours; five hours arranged. Course in basic drawing skills intended as preparation for work in a variety of media. 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. Letter grading.

11A. Painting. (4) Studio, eight hours; five hours arranged. Basics of painting: introduction to technical procedures, tools, and materials. Discussion of fundamental conceptual and formal concerns. P/NP or letter grading.

11B. Photography. (4) Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Varied approaches, processes, and applications of the photographic medium within the 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 a variety of printmaking media as preparation for more focused study in particular media at upper division level. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, intermedia, and other nontraditional media and processes. 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 century to late-20th century. 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 the 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 practices and theories, with focus on work made from the 1960s to the present. Letter 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 a maximum of 20 units. Letter grading.

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

132. Survey of Critical Thought. (5) Formerly numbered 32.) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Overview of premodern, modern, and postmodern theory as reflected in critical writing and artistic practice, with emphasis on the 1940s to the present. Specific topics may vary. May be repeated for a maximum of 20 units. Letter grading.

133. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied media and subjects to further develop students’ technical and expressive means to implement their ideas. May be repeated for a maximum of 20 units. Letter grading.

137. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Emphasis to be selected by faculty members from one or more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for a maximum of 20 units. Letter grading.

140. Advanced Printmaking. (5) Studio, eight hours; seven hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary: woodcut, etching and engraving, lithography, screen printing, mixed media. May be repeated for a maximum of 20 units. Letter grading.

145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected studies in sculpture, historical and contemporary: modeling, carving, casting, welding, and other media; forms in space, including installations and non-studio pieces. May be repeated for a maximum of 20 units. Letter grading.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Selected projects in photography and related media, concentrating on development of individual students’ artwork. Studio emphasis with special topics in theory and critical analysis. May be repeated for a maximum of 20 units. Letter grading.

148. Advanced Ceramics. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Selective studies in ceramics, with emphasis on individualized creative experimentation with materials and techniques introduced in course. Methods and processes to be selected from range of possibilities, including handforming and modeling, preparation and use of molds, slipcasting, and use of potter’s wheel. May be repeated for a 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. (4) Formerly numbered 188.) Studio/museum visits, eight hours; four hours arranged. Limited to junior/senior Art majors. 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 once. Letter grading.

C181. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 115. 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. Concurrently scheduled with course C281. Letter grading.

C182. Exhibitions and Public Programs. (4) Seminar, four hours. Preparation: at least one course from 100 through 115. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. Concurrently scheduled with course C282. Letter grading.
M186C. Beyond the Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicana and Chicano Studies M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequis- ite: course M186CL. Continuation of investigation of muralism as method of community education, deve- lopment, and empowerment. Exploration of issues through development of large-scale collaborative digi- tally created image and/or painting for placement in community. Students research, design, and work with community participants. Preparation: completion of prior course M186B and M186BL. May be repeated for credit. Letter grading.

M189. Chicana Art and Artists. (4) (Formerly numbered M190.) (Same as Chicana and Chicano Studies M175 and World Arts and Cultures M128.) Lecture, four hours. Recommended concurrently: course M186A, M186B, or M186C. Emphasis on public monuments in the U.S. as basis for cultural insight and critique of American values from perspective of Chicana artist. Topics include: Chicana Chicano art in the museum, Chicana Chicano art and technology, and Chicana Chicano art in the community. Open to students during scheduled hours. Concurrently scheduled with course C183. Letter grading.

M190. Studio/Research Colloquia in Art. (1) Seminar, three hours. Corequisite: course 197 or 198. Limited to juniors/seniors. Designed to bring together stu- dents undertaking supervised studio projects or research in seminar setting with one or more facult y members to discuss their own work or related work in discipline. May be repeated for a maximum of 4 units. P/NP grading.

M191. Individual Studies in Art. (2 to 4) (Formerly numbered 197.) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Individual in- tensive studio project or study, with scheduled meet- ings to be arranged between faculty member and stu- dent. Tangible evidence of project or mastery of sub- ject matter required. May be repeated for a maximum of 8 units. Individual contract required. Letter grading.

M198. Honors Research in Art. (2 to 4) (Formerly numbered 197.) Tutorial, to be arranged. Preparation: 3.0 grade-point average overall, 3.5 grade-point aver- age in major. Corequisite: course 190. Limited to jun- ior/senior Art majors. Development and completion of comprehensive research or studio project under di- rect supervision of faculty member. May be repeated for a maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Study in painting and associated media. May be re- peated for credit with consent of adviser. Letter grading.

272. Graduate Printmaking. (2 to 8) Studio, eight hours. Studies in traditional and experimental print- making. 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 stu- dent 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 indi- vidual students' artwork. Studio emphasis with adja- cent studies in theoretical and critical analysis. Spe- cific attention to original, expressive, social, and hu- manistic values of art. May be repeated for credit with consent of adviser. Letter grading.


276. Graduate Group Critique. (4) Discussion, three hours; tutorial, to be arranged. Group critique/discus- sion of students' research. Additional tutorial meet- ings by arrangement with instructor. May be repeated for credit. Letter grading.

277. Graduate Ceramics. (2 to 8) Studio, eight hours. Studies in ceramics and art with investigation of traditional and experimental processes and intel- lectual 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 read- ings. May be repeated for credit. S/U or letter grading.

280. Graduate Seminar in Art. (4) Discussion, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, is- sues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psy- chocritical theory, commodification, and censorship. May be repeated for credit. Letter grading.

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


C283. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Se- lected topics in art explored through variety of ap- proaches which may include projects, readings, dis- cussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.
ART HISTORY
College of Letters and Science

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Irene A. Bierman, Ph.D., Chair

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Robert L. Brown, Ph.D.
Susan B. Downey, Ph.D.
Mary Kelly, M.A.
Cecelia F. Klein, Ph.D.
David M. Kunzle, Ph.D.
Donald F. McCallum, Ph.D.
David A. Scott, Ph.D.
Debora L. Silverman, Ph.D.
Lothar von Falkenhausen, Ph.D.
Joanna C. Woods-Marsden, Ph.D.

Professors Emeriti
Katharina Otto-Dorn, Ph.D.
Carlo Pedretti, M.A. (Armand Hammer Professor Emeritus of Leonardo Studies)
Donald A. Preziosi, Ph.D.
Anthony Vidler, Dipl.Arch.

Associate Professors
Irene A. Bierman, Ph.D.
Sharon E. Gerstel, Ph.D.
Burglind Jungmann, Ph.D.
Miwon Kwon, Ph.D.
Zoë S. Strother, Ph.D.

Assistant Professors
George T. Baker, Ph.D.
Charlene Vilaseñor Black, Ph.D.
Hui-Shu Lee, Ph.D.
Saloni Mathur, Ph.D.
Steven D. Nelson, Ph.D.

Senior Lecturer S.O.E
Jean S. Weisz, Ph.D., Emerita

Scope and Objectives
The department offers programs leading to the Bachelor of Arts, Master of Arts, and Ph.D. degrees. It endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question the canon, rethink the relationship between margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.

Undergraduate Study
Art History B.A.

Preparation for the Major
Required: Two courses from Art History 50, 51, 54, 57 and two courses from 55A, 55B, 56A, 56B. It is strongly recommended that these courses be taken prior to enrollment in upper division courses.

Transfer Students
Transfer applicants to the Art History major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two art history courses in ancient, Renaissance and baroque, medieval, or modern art and two courses in Asian, oceanic, Native American, or pre-Columbian art.

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 art history courses as follows:
A total of six courses (24 units) from the following 12 areas are required, distributed as follows:

Required Upper Division Courses (20 units):


Five art history electives from the above 12 areas are required; courses 100, 127, and 197 may also be included.

Two terms of one foreign language are also required. The language is in addition to the College foreign language requirement. For example, if French was used to satisfy the College foreign language requirement, a language other than French needs to be taken to satisfy the foreign language requirement for the major.

Art History majors should be aware that the upper division course requirements in the major (44 units) do not meet the upper division requirement of 60 units for graduation. Additional upper division units must be taken to reach the 60-unit total.

It is recommended that students have each term’s program approved by the departmental adviser.

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 junior and senior Art History majors who have completed a minimum of four 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 undergraduate counselor one term prior to beginning the honors program.

To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper division courses in the department and an overall GPA of 3.0 or better, and (3) complete Art History 198A and 198B with a grade 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 a grade 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 in 100 Dodd Hall. Students are advised to declare the minor early and meet with the student affairs officer (310-825-3480) to plan a coherent program.

Required Lower Division Courses (15 units): Three courses selected from Art History 50, 51, 54, 55A, 55B, 56A, 56B, 57.

Required Upper Division Courses (20 units): Five art history courses, with at least two from each group:


Five art history electives from the above 12 areas are required; courses 100, 127, and 197 may also be included.

A total of six courses (24 units) from the following 12 areas are required, distributed as follows:

Required Upper Division Courses (20 units):


Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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, Hellenistic, and Roman art and architecture. P/NP or letter grading.
51. Medieval Art. (5) Lecture, three hours; quiz, two hours. Early Christian, Byzantine, Carolingian, Ottoman, Romanesque, and Gothic art and architecture. P/NP or letter grading.
54. Modern Art. (5) Lecture. three hours; quiz, one hour; museum field trips. Social history of modern art from period of French Revolution to circa 1968. Artists and their works treated from perspective of sociopolitical and broad cultural developments. 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 cultures that developed in area between (and including) Mexico and Peru from 1000 B.C. to the Conquest. P/NP or letter grading.
56A. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Survey of sequence of cultures that developed. 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 relationship 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 the 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 a 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.
88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in a specific term. P/NP or letter grading.

Upper Division Courses

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: three courses from 50 through 57. Critical examination of history and discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grading.
101A. Egyptian Art and Archaeology. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during the Predynastic period and Old Kingdom.
101B. Egyptian Art and Archaeology of the Middle and New Kingdoms. (4) Lecture, three hours. Requisite: course 50. Study of architecture, sculpture, painting, and minor arts during the Middle and New Kingdoms.
M102A. Minoan Art and Archaeology. (4) Same as Classics M153A.) Lecture, three hours. Requisite: course 50 or Classics 10. Study of development of art and architecture in Minoan Crete from ca. 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. Study of development of art and architecture in Mycenaean Greece from ca. 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. 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. 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 20. Study of development of art and architecture of Greek world from middle of the 4th century B.C., including transmission of Greek art forms to the Romans. P/NP or letter grading.
M102F. Etruscan Art. (4) (Same as Classics M153F.) Lecture, three hours. Requisite: course 50 or Classics 20. Arts of Italic peninsula from ca. 1000 B.C. to end of the 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. Art and architecture of Rome and its Empire from ca. 300 B.C. to A.D. 300. P/NP or letter grading.
M102H. Late Roman Art. (4) (Same as Classics M153H.) Lecture, three hours. Requisites: courses 50, M102G. Art of Roman Empire from the 2nd through 4th century (A.D.). P/NP or letter grading.
106C. Italian Art of the 15th century. (4) Lecture, three hours; demonstrations/field trips. Concurrently scheduled with courses C203A-C203B. P/NP or letter grading.


C103B. Italian Art of the Quattrocento. (4) Lecture, three hours. Requisite: course 57. Art and architecture of the 16th century.

C103C. Museum Studies Practicum. (2 to 4) Lecture, three hours. Requisite: courses C103A, C103B. Field trips, and discussions focused on the history of museums and museum practices, and on the work of museum personnel and volunteers.

C103D. Issues in Materials Preservation. (4) Formerly numbered 103D. Lecture, three hours. Designed for Anthropology and Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials, with an emphasis on the historical and social aspects. Ethical and aesthetic considerations, with reference to works of art from historic periods and locations. Emphasis on preservation of the cultural heritage as an educational tool and a means of fostering active critical engagement with museums and institutions. Concurrently scheduled with course C203C. Letter grading.

C222D. Special Topics in Modern and Contemporary Art. (4) Lecture, three hours. Concurrently scheduled with course C203C. P/NP or letter grading.

C311B. American Art in the Gilded Age, 1860 to 1900. (4) Lecture, three hours. Painting, sculpture, and architecture in the United States from the 1860s to the 1900s. Emphasis on the development of art and architecture during the Gilded Age. Concurrently scheduled with course C212B. P/NP or letter grading.

C311C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in the United States from 1900 to 1945. Emphasis on the development of art and architecture during the first half of the 20th century. Concurrently scheduled with course C212C. P/NP or letter grading.

C311D. African American Art. (4) (Same as Afro-American Studies CM112D.) Lecture, three hours. Detailed inquiry into work of 20th-century African American artists whose works provide insightful and critical commentary about major features of American life and society, including visits to various key African American art institutions in Los Angeles. Concurrently scheduled with course C212D. P/NP or letter grading.

C311E. African American Art. (4) (Same as Afro-American Studies CM112E.) Lecture, three hours. Continuation of course C311D, involving detailed inquiry into work of 20th-century African American artists. Concurrently scheduled with course C212E. P/NP or letter grading.

C311F. Imaging Black Popular Culture. (4) (Same as Afro-American Studies CM112F.) 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, Afrocentrism, political resistance, and notions of blackness. Concurrently scheduled with course C212F. P/NP or letter grading.

C314. Early Art of India. (4) Lecture, three hours. Open to freshmen. Survey of Indian art from Indus Valley cultures to the 10th century. Emphasis on Buddhist and Hindu backgrounds of the arts.


C316. Later Art of India. (4) Lecture, three hours. Open to freshmen. Survey of Indian art from the 10th to 19th century. Emphasis on the role of Hindu art, Buddhist art, and Islamic art in the art of India.

C317. Arts of Southeast Asia. (4) Lecture, three hours. Open to freshmen. Southeast Asian art from its beginning in prehistory through the 19th century. Study of selected cultures from Burma, Thailand, Cambodia, Vietnam, and Indonesia.


C319. Baroque Art. (4) Lecture, three hours. Requisite: course 57. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C209A. P/NP or letter grading.

C320A. Baroque Art. (4) Lecture, three hours. Requisite: course 509A. Art and architecture of Northern Europe, 16th to late 17th century.

C321. European Art of the 18th Century. (4) Lecture, three hours. Requisite: course 57. Study of art and architecture of the 18th century, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C322. Baroque Art. (4) Lecture, three hours. Requisite: course 509A. Art and architecture of Northern Europe, 16th to late 17th century.


C324. European Art of the 19th Century: Realism and Impressionism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C325. European Art of the 19th Century: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C326. European Art of the 19th Century: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C327. European Art of the 19th Century: Impressionism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C328. European Art of the 19th Century: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C329. European Art of the 19th Century: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.

C330. European Art of the 19th Century: Postimpressionism to Surrealism. (4) Lecture, three hours. Requisite: course 54. Study of the development of modern art from the 19th century to the present, with emphasis on the role of art in the political and social developments of the era. Emphasis on the role of art in the political and social developments of the era.
117E. Colonial Latin American Art. (4) Lecture, three hours. 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 ideas; Counter-Reformation and politics of representation; saints’ cults and gender ideologies; Aztec and Hispanic Catholic blood sacrifice imagery; processions, iconography of Christ and saints, cult of Virgin of Guadalupe; and arts and rise of creole nationalism. Analysis of variety of readings, including indigenous accounts of conquest and Inquisition guidelines for religious imagery. Study of Latin America. 118A. Arts of Oceania. (4) Lecture, three hours. Study of major artistic traditions and regional and broad historical relationships. 118C. Arts of Sub-Saharan Africa. (4) Lecture, three hours. Critical examination of key themes in art and architecture of Africa, with emphasis on ways visual arts and built environment function with respect to larger social and cultural issues. P/NP or letter grading. 118D. Arts of Native North America. (4) Lecture, three hours. Survey of painting, sculpture, and other arts from the Eskimo to peoples of the Caribbean and Southwestern U.S. 118E. Advanced Studies in Non-Western Art. (4) Lecture, three hours. Selected topics in non-Western peoples who reflect interactions with major regional and visiting faculty members. P/NP or letter grading.

119C. Contemporary Arts of Africa. (4) Lecture, three hours. Study of African visual practices since the mid-20th century, with special emphasis on changes in styles, techniques, and themes. Status of “African” artist, global reception of contemporary African art, and very definitions of “contemporary African art.” Concurrently scheduled with course C216C. P/NP or letter grading. 119D. Architecture and Urbanism in Africa. (4) Lecture, three hours. Study of African built environment at various moments and in different places from about 1200 C.E. to the present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space, and contemporary African cities. Concurrently scheduled with course C216D. P/NP or letter grading. 119E. African Civilizations. (4) Lecture, three hours. Development of three very different African civilizations through their arts from 100 B.C.E. to the 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. C140A. History of Korean Painting. (4) Lecture, three hours. Study of course 114E. Korean painting history from Three Kingdom period to the 19th century, with special emphasis on Choson dynasty (1392 to 1910). Concurrently scheduled with course C242A. P/NP or letter grading. C140B. History of Korean Ceramics. (4) Lecture, three hours. Study of course 114E. History of Korean ceramics from Neolithic period to the 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C242B. P/NP or letter grading. C140C. History of Korean Buddhist Art. (4) Lecture, three hours. Study of course 114E. History of Korean Buddhist art from Three Kingdom period to Choson dynasty, with special emphasis on Buddhist sculpture, painting, and architecture. Concurrently scheduled with course C242C. P/NP or letter grading. C140D. Selected Topics in Korean Art. (4) Lecture, three hours. Study of course 114E. Variable topics in Korean art which reflect interests of individual regular and/or visiting faculty members. 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 primitivism, gender, and sexuality in modernist art; origins of abstraction, cubism, surrealism, and ready-made; role of art in the cultural and social history of the United States. 197. Individual Studies in Art History. (4-4) Lecture, three hours. Independent study of art history and related fields. 199A. Art and Empire. (4) Lecture, three hours. Examination of role of art in the history of the Roman Empire from the Republican period to the fall of the Roman Empire. Study of art, architecture, and early 20th-century artistic movements, drawing on ethnography, art criticism, aesthetic theory, and specific museum and exhibition debates. Concurrently scheduled with course C220B. Letter grading. 199B. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to the present. Concurrently scheduled with course C280C. Letter grading. 219. Individual Studies in Art History. (2 to 4) (Formerly numbered 199B.) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to seniors. Individual independent study of art history. Study of art, art history and related fields. 219A. Art History/Art History majors. Two-term independent research project under supervision of appropriate faculty member, culminating in departmental honors thesis of approximately 30 pages. Individual contract required. In Progress (199A) and letter (199B).
199. Directed Research in Art History. (2 to 4) Tu-
torial, two hours. Limited to juniors/seniors. Super-
vised individual investigation under the supervision
of faculty mentor. Culminating paper or project re-
quired. Individual contract required. P/NP or letter
 grading.

Graduate Courses

200. Art Historical Theories and Methodologies. (4)
Seminar, three hours. Critical examination of his-
tory of disciplinary boundary with studies of various
theoretical, critical, and methodological approaches
to visual art from antiquity to the present. May be re-
peated for credit with consent of adviser. S/U or letter
 grading.

201. Topics in Historiography of Art History. (4)
Discussion, three hours. Critical examination of histo-
riographic traditions of specific areas and fields within
the discipline of art history, concentrating on particu-
lar time periods, geographical areas, artistic tradi-
tions, or the work of one or more authors. May be re-
peated for credit with consent of adviser.

(4) Seminar, three hours. Focused studies of various
theoretical and methodological positions within art
history, concentrating on particular issues, authors, or
methodologies either within or across historical and cul-
tural areas. May be repeated for credit with consent of
adviser. S/U or letter grading.

C203A-C203B. Museum Studies. (4-4) Lecture,
three hours; demonstrations/field trips. May be re-
peated for credit with consent of adviser. Concurrently
scheduled with courses C103A-C103B. S/U or letter
 grading. C203A. Introduction to historical evolution
of museums and museology, theories and methods of
their operations, historical and critical relationships
between museology, art history, and new technolo-
gies for archiving and exhibiting artifacts and histori-
cal materials. C203B. Lectures and discussions orga-
nized to foster active critical engagement with muse-
um policies, operations, and productions involving
focused study and on-site research on particular mu-
seum institutions and exhibitions.

C203C. Museum Studies Practicum. (2 to 4) Lec-
ture, three hours. Requires: courses C203A, C203B.
On-site examination and discussion of select-
ed artworks, exhibitions, and associated published
and distributed materials, and of museum and gallery
institutions, practices, and policies. Concurrently
scheduled with course C216C. Lecture, Letter grading.

C203D. Selected Topics in Museum Studies. (4)
Seminar, three hours. Changing topics in museologi-
cal, curatorial, and exhibition practices that reflect in-
terests of regular and visiting faculty members. S/U or
letter grading.

C203E. Issues in Materials Preservation. (4) Lec-
ture, three hours. Designed for anthropology, archae-
ology, and art history graduate students. Introduction
to preservation of cultural heritage materials, includ-
ing 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 environment contexts. Materials and
methods used to make cultural heritage materials,
in relation to preservation efforts needed to prevent
decay and loss. Introduction to examples of preser-
vation issues related to sites, buildings, monuments,
and collections. Ethical and contextual aspects with
reference to changing values, illustrating how cultural
materials may have been treated differently according
to those values. Concurrently scheduled with course
C103D. S/U or letter grading.

204. Restoration, Preservation, and Conservation.
(4) Seminar, two hours. May not be repeated.

205. Studies in Prints. (4) Seminar, two hours.
Critical studies in history and connoisseurship of graphic
arts in the Western world. Group or individual studies
often culminate in professionally directed exhibitions
produced by Grunwald Center for the Graphic Arts.
May be repeated for credit with consent of adviser.

206. Studies in Drawings. (4) Seminar, two hours.
Critical studies in history and connoisseurship of draughtsmanship
in the Western world. Individual studies emphasizing professional presentation.
Group studies may culminate in exhibitions spon-
sored by Grunwald Center for the Graphic Arts. May be repeated for credit with consent of adviser.

207. Consortium for Graduate Seminars in Getty
Research Institute. (4) Seminar, three hours. Intramu-
ral graduate seminar at Getty Museum in collabora-
tion with Getty Research Institute. Investigators, topics,
and format vary. S/U or letter grading.

208. Literature of African Art. (4) Seminar, three
hours. Limited to graduate students. Designed to pre-
pare both graduate African Art minors and specialists
to read certain paradigmatic texts in field of African
art history with critical fluency. S/U or letter grading.

C209A. Baroque Art. (4) Lecture, three hours. Requi-
r: course 57. Art and architecture of Spain or Ita-
ly, 16th to late 17th century. Concurrently scheduled
with course C120A. S/U or letter grading.

210. Egyptian Art. (4) Seminar, two hours. Requi-
r: courses 101A, 101B, M102A. Art in Egypt dur-
ing the Late period and Greco-Roman period. Stu-
dents should be prepared to organize for every meeting a
batch of visual documentation of assigned visual memoirs, not
to exceed 10 minutes. Some lectures may be repeated for
credit with consent of adviser.

211. Topics in Aegean Art. (4) Seminar, two hours.
Requisites: courses M102A, M102B. Art and archi-
etecture of Aegean world 1000 to 100 B.C. C.
Monuments or theoretical problems related to art and
culture of Crete, Greece, the Cyclades, or Western
Anatolia. May be repeated for credit with consent of
adviser.

C212A. American Art before the Civil War. (4) Lec-
ture, three hours. Painting, sculpture, and architecture in the U.S. from Colonial period through the Civil War.
May be repeated for credit with consent of adviser.
Concurrently scheduled with course C122A. S/U or
letter grading.

C212B. American Art in the Gilded Age, 1860 to
1900. (4) Lecture, three hours. Painting, sculpture, and architecture in the U.S. from the Civil War to turn of
the century. May be repeated for credit with con-
sent of adviser. Concurrently scheduled with course
C112B.

C212C. American Art, 1900 to 1945. (4) Lecture,
three hours. Painting, sculpture, and photography in the U.S. from 1900 to 1945. May be repeated for
credit with consent of adviser. Concurrently sched-
uled with course C112C. S/U or letter grading.

CM212D. African American Art. (4) Same as Af-
ro-American Studies CM212D. Lecture, three hours.
Detailed inquiry into work of 20th-century African
American artists whose works provide insightful and
critical commentary about major features of American
life and society, including visits to various key African
American art institutions in Los Angeles. May be re-
peated for credit with consent of adviser. Concurrently scheduled with course CM112D.

CM212F. Imaging Black Popular Culture. (4) For-
merly numbered C212F. (Same as Afro-American
Studies CM212F.) Lecture, three hours. Critical ex-
amination of media ranging from African American paint-
ing art, to photography, literature, and popular indus-
tries, with an emphasis on relationship between black visual produc-
tion and racism, Afrocenrticism, political resistance,
and notions of blackness. Concurrently scheduled
with course CM112F. S/U or letter grading.

213. Advanced Studies in Islamic Art. (4) Semi-
inar, two hours. Art and architecture of Islamic world
(Spain to Iran) from the 7th to 17th century. Monu-
ments or theoretical problems related to Islamic cul-
ture and artistic production. May be repeated for cred-
it with consent of adviser.

C214. Problems in Islamic Art. (4) Seminar, three
hours. Monuments or theoretical problems related to
Islamic culture and artistic production. May be repeat-
ed for credit with consent of adviser. Concurrently scheduled with course C104C. S/U or letter grading.

C216C. Contemporary Arts of Africa. (4) Lecture,
three hours. Survey of African visual practices since
the mid-19th century. May be repeated for credit with
consent of adviser. 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 the present, with emphasis on cul-
tural, social, and historical contexts of architecture,
gender, and space, and contemporary African cities.
Concurrently 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 the present, with em-
phasis on relevance to contemporary issues, cri-
ticism, and theory. May be repeated for credit with
consent of adviser. S/U or letter grading.

C218A. Pre-Columbian Art of Mexico. (4) Lecture,
three hours. Requires: course 55B. Study of art of se-
lected cultures of northern Mesoamerica from ca.
1200 B.C. to the Conquest, with emphasis on histori-
ic and iconographic problems. May be repeated for
credit with consent of adviser. Concurrently sched-
uled with course C117B.

C218B. Pre-Columbian Art of the Maya. (4) Lec-
ture, three hours. Requires: course 55B. Study of art
of selected cultures of Colombia, Ecuador, Peru, and
Bolivia from ca. 4000 B.C. to the Conquest, with par-
ticular emphasis on history and iconography of art of
art of Peru. May be repeated for credit with consent of adviser.
Concurrently scheduled with course C117C.

C218D. Aztec Art. (4) Lecture, three hours. Requi-
r: course 55B or C117A. Painting, sculpture, archi-
etecture, and other arts of Nahautl-speaking peoples
of central Mexico in the Terminal Classic and early Post-
Classic period and very definitions of “contemporary African art.”
Time and very definitions of “contemporary African art.”
May be repeated for credit with consent of adviser.
Concurrently scheduled with course C117B.

219A. Oceanic Art. (4) Seminar, three hours. Stud-
ies in selected topics in art of Pacific islands. May be
repeated for credit with consent of adviser. S/U or
letter grading.

219B. Pre-Columbian Art of the Andes. (4) Semi-
inar, 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 American Art. (4) Seminar, three
hours. Studies in selected topics in art of African
America. 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 Indian. May be repeated for credit with consent of
adviser. S/U or letter grading.

220. Oceanic, Pre-Columbian, African, and Native
North American Art. (4) Seminar, three hours. Stud-
ies in selected topics comparing arts of Oceania, Af-
rica, Pre-Columbian, African, and Native North America. May be repeated for credit with consent of adviser. S/U or letter grading.
221. Topics in Classical Art. (4) Lecture, two to three hours. Studies in Parthian art. Site-by-site survey of the Nezafat, Eastern Roman, Sasanian, Islamic, and Byzantine sites during period of Greek and Parthian control. May be repeated for credit with consent of adviser.

223. Classical Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser.

225. Medieval Art. (4) Seminar, two hours. Studies in selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. In Progress (226A) and (226B) grading.

229. Renaissance and Baroque Paleography. (4) Seminar. Preparation: knowledge of Italian, working knowledge of Latin. Workshop approach to documents pertaining to artistic commissions from the 15th to 17th century in Italy to study various aspects of handwriting in official and private deeds, correspondence, treaties, and inscriptions. May be repeated for credit with consent of adviser.

230. Italian Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardo's theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser.

231. Leonardo and Renaissance Theory of Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardo's theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser.

235. Northern Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardos theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser.

240. Baroque Art. (4) Seminar, two hours. 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.


242B. History of Korean Ceramics. (4) Lecture, three hours. Requisite: course 114E. History of Korean ceramics from Neolithic period to the 19th century, with special emphasis on technological and stylized developments. Concurrently scheduled with course C140B. S/U or letter grading.

242C. 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. Concurrently scheduled with course C140B. S/U or letter grading.

242D. Selected Topics in Korean Art. (4) Lecture, three hours. Requisite: course 114E. Variable topics in Korean art which reflect interests of individual regular and/or visiting faculty members. Concurrently scheduled with course C140D. S/U or letter grading.

243. Selected Topics in Korean Art. (4) Lecture, three hours. Studies of Korean art under different artistic historical perspectives, methods, and theories. Individual studies, with emphasis on professional presentation. Group studies may be linked to exhibition projects. May be repeated with consent of instructor. S/U or letter grading.

244. Topics in European Art from 1700 to 1900. (4) Lecture, two to three hours. May be repeated for credit with consent of adviser.

245. European Art from 1700 to 1900. (4) Seminar, two hours. May be repeated for credit with consent of adviser.

247. 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, photography, montagage, and ready-made; rise of automatism and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C147. S/U or letter grading.

249A. Dada, 1915 to 1923. (4) Lecture, three hours. Discussion, one hour. Study of Dada 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 C149A. S/U or letter grading.

249B. Surrealism, 1924 to 1939. (4) Lecture, three hours; discussion, one hour. Study of art, literature, and film associated with surrealist movement in France, with special emphasis on 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 C149B. S/U or letter grading.

250A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Requisite: course 54. Study of major artistic and cultural trends following World War II in the U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C150A. S/U or letter grading.


251. Contemporary Art. (4) Seminar, three hours. Selected topics in contemporary art, criticism, and theory. S/U or letter grading.

253. Modern Art. (4) Seminar, two hours. Changing 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.

255. American Art. (4) Seminar, two hours. Requisite: course C112A or C112B or C112C, depending on topic. Topics in American art from Colonial period to the present. Discussion of weekly readings, student oral presentations, and papers. May be repeated for credit with consent of adviser.

256. Topics in African American Art. (4) Seminar, three hours. Requisite: course CM112D or CM112E or CM112F. Topics in African American art from the 19th century to the present. May be repeated for credit with consent of graduate 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.

258. Advanced Chinese Art. (4) Lecture, three hours. Study in Chinese painting and sculpture. May be repeated for credit with consent of adviser. Concurrently scheduled with course C115C.


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


261A. 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.

261B. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906. (4) Lecture, three hours. Palace and tomb decoration, political 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.

261C. 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.). May be repeated for credit with consent of adviser. Concurrently scheduled with course C115F. S/U or letter grading.

262A. 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, archaeology of language dispersal, cultural contact and nature of cultural influence.” Letter grading.

265. Fieldwork in Archaeology. (2 to 6) Participation in archaeological excavations or other archaeological research under supervision of the staff. May be repeated for credit with consent of adviser.
STUDIES

ARTS AND ARCHITECTURE
School of the Arts and Architecture

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Scope and Objectives

There is no major in arts and architecture; however, the following courses are part of the schoolwide curriculum.

Arts and Architecture

Lower Division Course

10. Arts Encounters: Exploring Arts Literacy in the 21st Century. (5) Lecture, four hours; discussion, one hour; field trips, three hours; outside study, seven hours. Through series of direct encounters with art and artists across a global range of practices, course equips students with kinds of critical skills that enhance their understanding of and sharpen their appetite for, a wide range of artistic practices. Attendance at performance/art events outside normal class schedule is mandatory. P/NP or letter grading.

Upper Division Courses

100. Selected Topics in the Arts. (4) Lecture, four hours; discussion and/or laboratory, three hours; outside study, five hours. Selected topics in the arts explored through a variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics to be announced in advance. May be repeated for a maximum of 8 units. P/NP or letter grading.

Related Courses

Classics
251A. Seminar: Classical Archaeology — Aegean Bronze Age
251B. Seminar: Classical Archaeology — Greco-Roman Architecture
251C. Seminar: Classical Archaeology — Greco-Roman Sculpture
251D. Seminar: Classical Archaeology — Greco-Roman Painting

S/U or letter grading.

ARTS AND ARCHITECTURE

Scope and Objectives

The Asian American Studies Department promotes the study of Asian Americans and Pacific Islanders in the U.S. from several disciplines. An undergraduate major leading to a B.A. degree is available for those students who wish to pursue their studies about Asian Pacific Americans in more depth, while the graduate program leads to the M.A. degree. Students enrolled in an organized undergraduate major other than Asian American Studies may pursue a minor in the field.

A major goal of the department is to communicate the experiences of Asian Pacific Americans as an ethnic group. Courses examine the important issues and concerns of Asian Pacific

M270. Art Law. (4) (Same as Law M301.) Knowledge of fine arts, arts management, or international law desirable. Limited enrollment; management and art history students may cross-register with consent of instructors. Legal issues related to the fine arts. Consideration of U.S. domestic law as well as international treaties and foreign law in addressing such controversial issues as the international trade in art, art in public places, and moral rights. Distinguished guest speakers and one field trip.

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 the 19th and early 20th centuries, from Niépce to Atget. C271B. 1910 to the Present. History of photography in the 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 art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C180A. Letter grading.


C280C. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to the present. Concurrently scheduled with course C180C. 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 the University. May be repeated for credit. S/U grading.

495. Teaching Art History. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Designed for graduate students. Required of all new teaching assistants during Fall Quarter of their teaching assistant appointment. Workshop/seminar in teaching techniques and pedagogical issues, consisting of readings, discussions, and guest speakers on selected topics. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) S/U grading.


American studies, including their history, community, and culture.

Asian American studies is a specialized field of intellectual inquiry in higher education that examines the diverse experiences of Asian-ancestry and Pacific Islander Americans, including their histories, communities, cultures, socioeconomic mobility, and political participations, and their relationships with ancestral homelands and other Asian diasporas.

Interdisciplinary scholarship has from the outset been the cornerstone of the field, but Asian American studies also seeks to interrogate disciplinary boundaries by adopting comparative and cross-disciplinary or multidisciplinary perspectives to study racial and ethnic relations in America, diasporic and transnational communities, U.S.-Asian relations, and globalization.

The department recognizes its vital historical and continuing linkage with the struggle for the civil rights and social justice of people of color and other disadvantaged social groups. Faculty members are committed to offering a curriculum that embraces the historical and contemporary realities of Asian Americans and Pacific Islanders, supporting research that promotes equality, encouraging community services, and making higher education more inclusive and responsive to Asian diversity.

The department equips students with theoretical, methodological, and practical knowledge, as well as analytical and communication skills needed to be successful in American society, while creating a nurturing environment for faculty, students, and staff in their interdisciplinary and extramural collaborations and activities. It aims to build on UCLA’s preeminence and to strengthen its position as the national leader in Asian American studies.

The department also is enhanced by its connection to and interaction with the Asian American Studies Center. Established in 1969, the center has been widely recognized as one of the world’s top Asian American studies institutions.

The undergraduate and graduate programs aim to enhance and infuse the UCLA curriculum with an interdisciplinary understanding of the Asian American experience to promote innovative research and cutting-edge scholarship in Asian American studies, provide leadership training to individuals interested in working in Asian American communities, and prepare students for advanced study in the humanities, social sciences, and professional disciplines.

Undergraduate Study

Asian American Studies B.A.

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.

Preparation for the Major

Required: Asian American Studies 10 or 10W, and 20.

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: one history of Asian Americans course and one contemporary Asian American Communities 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: A total of 12 upper division courses, including one research methods course, two Asian American theme courses, two courses with focus on an Asian Pacific American ethnic-specific group, two ethnic/race/gender relations courses, two courses on history/culture/social or political institutions of Asia, and three elective courses selected from Asian American studies or the approved list of departmental courses.

Required Lower Division Courses (10 units):

- Required: Asian American Studies 10 or 10W, and 20.

Required Upper Division Courses (20 units):

- One Asian American theme course, one course with focus on an Asian Pacific American ethnic-specific group, and three Asian American studies elective courses.

No more than 4 units of course 199 may be applied toward the minor. Only courses in Asian American studies or those multiple-listed with the department may be taken to fulfill requirements for the minor. No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

All minor courses must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), with 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://www.gdnet.ucla.edu. 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.

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 Asian American Studies 10 (or 10W) and 20, and file a petition with the undergraduate counselors, Asian American Studies Center, 3230 Campbell Hall.

Required Lower Division Courses (10 units): Asian American Studies 10 or 10W, and 20.

Required Upper Division Courses (20 units):

- One Asian American theme course, one course with focus on an Asian Pacific American ethnic-specific group, and three Asian American studies elective courses.

No more than 4 units of course 199 may be applied toward the minor. Only courses in Asian American studies or those multiple-listed with the department may be taken to fulfill requirements for the minor. No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

All minor courses must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.
Asian American Studies

Lower Division Courses

10. History of Asian Americans. (5) (Formerly numbered 99.) 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 the U.S. P/NP or letter grading.

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in the U.S. Satisfies Writing II requirement. Letter grading.

20. Contemporary Asian American Communities. (5) (Formerly numbered 100.) Lecture, three hours; discussion, one hour. Multidisciplinary introduction to contemporary Asian American populations and communities in the U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, demographic, social issues, and interethnic relations. P/NP or letter grading.

Upper Division Courses

101A. Introductory Video Ethnography and Documentary Workshop. (4) Laboratory, three hours. Introduction to concepts and methods of video documentation and video ethnography of the Asian Pacific American community. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, interviewing techniques, and editing. Students required to do off-campus fieldwork and complete video documentary. P/NP or letter grading.

107B. Advanced Video Ethnography and Documentary Workshop. (4) Laboratory, three hours. Requisite: course 107A. Advanced concepts and methods of video ethnography and video ethnography of the Asian Pacific American community. Topics include scriptwriting, budgeting, video image and sound control through camcorder functions, basic composition/lighting, sound recording, interviewing techniques, and editing. Students required to do off-campus fieldwork and complete video documentary. P/NP or letter grading.

108. Policy, Planning, and Community. (4) (Formerly numbered M108B.) (Same as Urban Planning M122.) 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.

112A. Chinese Immigrant Literature and Film. (4) (Formerly numbered M130A.) Lecture, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

114. Asian American and the Law. (4) Survey of major federal and California case and legislative law directed specifically toward Asian Americans from 1850 to World War II and relocation. Major subject area includes anti-Asian labor legislation, legal prohibitions against Asians’ right to enter the occupational labor force, immigration law, naturalization laws, and the right to vote. P/NP or letter grading.

115. Asian American Women. (4) Lecture, three hours. Condition of Asian women in America. Topics include women in Asian American history, racial and cultural stereotypes, and contemporary issues. Methodological approaches to study of gender issues presented and evaluated. P/NP or letter grading.

116. Asian American Social Movements. (4) (Formerly numbered 116.) Lecture, three hours. Social movements includes women in Asian American, Asian American political movements, including grassroots, mass movement character, political and social vision, and social and political relevance to current issues. How movement participated in and created national movement. P/NP or letter grading.

117. Asian American Personality and Mental Health. (4) (Same as Psychology M107.) Lecture, three hours. Personality and mental health issues of Asian Americans and their communities. Topics include culture, family patterns, achievements, stressors, resources, and immigrant and minority group status. P/NP or letter grading.

118A. Asian American and Pacific Islander Leadership Development Project Part I: Leadership. (4) Lecture, three hours. Limited to juniors/seniors. First term of two-part series on leadership development, with focus on intellectual and practical learning of leadership concepts, models, and skills. In Progress grading (credit to be given only on completion of course 118B). P/NP or letter grading.

118B. Asian American and Pacific Islander Leadership Development Project Part II: Field Studies. (4) Lecture, two hours; fieldwork, three hours. Enforced requisite: course 118A. Limited to juniors/seniors. Second term of two-part series on leadership development, with focus on Asian American, Pacific Islander, and other ethnic communities in Los Angeles. Examination of different approaches and strategies: community building and maintenance. P/NP grading.

119. Asian American and Pacific Islander Labor Issues. (4) 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.

120A. Pacific Islands and Asian American Communities in Hawaii: Past and Present. (4) (Formerly numbered 135A.) Lecture, four hours. Through perspectives of history, economy, politics, education, ethnic identity, and literature, explore the cultural and social history of Asian American and Pacific Islanders, and other ethnic communities, study of Hawaii as a model for multiculturalism. Selected guest lectures by prominent Hawaiian residents. Interaction with faculty and students at University of Hawaii. Field trips. Conducted at University of Hawaii, Manoa, in summer. P/NP or letter grading.

120B. Pacific Islands and Asian American Communities in Hawaii: Field Studies. (4) (Formerly numbered 135B.) Lecture, one hour; discussion, three hours; internship, 10 hours minimum. Enforced prerequisite: course 120A. Participation in academic-internships (minimum 50 hours) in social service, cultural, political, educational, and community organizations to gain experiential learning experience in Hawaii’s multicultural society. Given in Hawaii. P/NP or letter grading.

121. Exploring Asian American Theater. (4) (Formerly numbered 121B.) Discussion, four hours. Study of Asian American plays. Lecture, two hours. Enforced prerequisite: course 121A. Participation in academic-internship (minimum 50 hours) to compose one act based on their own experience using lessons learned in class. Exploration of scenic design and acting exercises. P/NP or letter grading.

129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Formerly numbered M129A.) (Same as Community Health Sciences M140.) Lecture, three hours; internship, one hour. Introduction to overview of mental health issues 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. P/NP or letter grading.

130A. Chinese American Experience. (4) (Formerly numbered 130E) Lecture, three hours. Not open to freshmen. Survey of immigration history, settlement patterns, and experiences of Chinese Americans. Examination of historical and contemporary sociocultural, economic, and political issues as they affect status of Chinese Americans and their community. P/NP or letter grading.

130B. Chinese Immigrant Literature and Film. (4) (Formerly numbered M132B.) (Same as Chinese M153 and Comparative Literature M171.) Lecture, three hours. Knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films dealing with diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

130C. Chinese Immigration. (4) (Formerly numbered M154.) 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.


134. Vietnamese American Experience. (4) (Formerly numbered 130C.) Lecture, three hours. Not open to freshmen. Survey of immigration history, settlement patterns, and experiences of Vietnamese Americans. Examination of historical and contemporary sociocultural, economic, and political issues as they affect status of Vietnamese Americans and their community. P/NP or letter grading.

135. Enforced corequisite: GE Cluster B. (Formerly numbered M102 and Honors Collegium M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M161. Ethnic, Cultural, and Gender Issues in America’s Health Care Systems. (4) (Formerly numbered M110.) (Same as Health Services M110.) Lecture, three hours. Designed for juniors/seniors. Introduction to study of gender, ethnicity, and cultural diversity related to health status and health care delivery in the U.S. Letter grading.

M165. Investigative Journalism and Communities of Color. (4) (Same as Afro-American Studies M163.) Lecture, three hours. Role of investigative journalism in understanding interethnic conflict and cooperation. Exploration of different perspectives on issues by comparing mainstream, ethnic, and alternative media coverage. P/NP or letter grading.

M164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Formerly numbered 164.) (Same as Women’s Studies M164A.) Lecture, four hours. Study of various forms of violence done to women and themselves but in light of larger systems of oppression, with focus on Pilipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.


M168. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Formerly numbered M197R.) (Same as Afro-American Studies M118, Chicana and Chicano Studies M118, and Indian Studies M118.) Seminar, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, student activities, and services, with focus on UCLA as a case. Letter grading.

M169. Constructing Race. (4) (Same as Afro-American Studies M159P and Anthropology M159P.) Lecture, three hours. Examination of race, a socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identities, and race in popular culture, and race and identity. P/NP or letter grading.

171A. Critical Issues in U.S.-China Relations. (4) (Formerly numbered 171E.) Lecture three hours. Not open to freshmen. Critical examination of U.S.-China relations, including study of historical, cultural, political, and socioeconomic factors that shape relations between China, Hong Kong, and Taiwan and the U.S. Examination of impact of relationships in the Pacific Rim and Chinese Americans and their communities. P/NP or letter grading.

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

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

171D. Critical Issues in U.S.-Philippine Relations. (4) (Same as History M144C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparatory history 176A, 176B, 178C. Designed for juniors/seniors. Examination of complex interrelationship between U.S. colonialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in the 20th century. P/NP or letter grading.


172. Indian Identity in the U.S. and Diaspora. (4) (Formerly numbered M133.) (Same as History M175B.) Lecture, three hours. Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

187A. Special Courses in Research Methodologies. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in research methodologies. May be repeated for credit with topic change. P/NP or letter grading.

187B. Special Courses in Asian American Themes. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected issues on race, ethnicity, gender, and sexuality from comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

187C. Special Courses in Asian American Populations and Communities. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

187D. 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 comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

187E. Special Courses in Transnationalism and Diasporas. (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.

191A. Topics in Research Methodologies. (4) (Formerly numbered 197A.) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies. May be repeated for credit with topic change. P/NP or letter grading.

191B. Topics in Asian American Themes. (4) (Formerly numbered 197B.) Seminar, four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

191C. Topics in Asian American Populations and Communities. (4) (Formerly numbered 197F.) 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.

191D. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4) (Formerly numbered 197D.) 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.

191E. Topics in Transnationalism and Diasporas. (4) (Formerly numbered 197E.) 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.

191F. Topics in Asian American Literature. (5) (Formerly numbered M197C.) (Same as English M179C.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable topics in selected courses in Asian American literature. Topics include specific genres (autobiography, poetry, or drama); specific nationalities within Asian American community; and themes related to such problems as gender, sexual orientation, religion, politics, or interethnic encounters. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. 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.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or 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.
Graduate Courses

200A. Critical Issues in Asian American Studies. (4) Designed for graduate students. Examines and seeks to develop a critical appreciation of research literature on Asians in America and to develop alternative interpretations of the Asian American experience. Topics include Asian American history and economic/political/social/psychological issues.

200B. Critical Issues in Asian American Communities. (4) Lecture, three hours. Designed for graduate students. Evaluation of traditional and contemporary theories and models of community for their appropriateness to understanding Asian Pacific American communities. Consideration of specific topics which explicate development, structure, and dynamics of Asian Pacific American communities in studying community issues and concerns.


200D. Asian American Literature and Culture. (4) Seminar, three hours. Examination of questions arising from Asian American literary and cultural criticism from the mid-19th century to the 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.


M215. Asian American Jurisprudence. (4) Same as Law M315.) Lecture, three hours. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how American law has shaped demographics, experiences, and possibilities of Asian Americans and also how they shaped American law as well. S/U or letter grading.

M239. Race and Ethnicity as a Concept in Practice and Research. (4) Same as Community Health M239.) Discussion, three hours. Integration of cross-cultural findings in health care with current American (U.S.) health care system paradigms to facilitate 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 the Third World. (4) (Same as Comparative Literature M274.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between the so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


297B. Asian Migration to the U.S. (4) Seminar, three hours. Emphasis on Asian Americans as a regional source for international migrants. Topics include patterns and theories of international migration and their relevance to the Asian experience, receiving and sending countries, and policies and 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 the University. Unit credit may be applied toward full-time equivalence but not toward course requirement for M.A. S/U grading.

490. Writing Workshop for Graduate Students. (2) Lecture, one hour; discussion, one hour. Practice in writing reports, 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) Hours to be arranged.


Related Courses

Afro-American Studies
M158B-M158C. Introduction to Afro-American History
M164. Afro-American Experience in the U.S.

American Indian Studies
M161. Comparative American Indian Societies

Anthropology
M134. Cultural Construction of Gender and Sexuality: Homosexualities

Field Methods in Cultural Anthropology
M146. Language and Culture of Polynesia: Past, Present, and Future
M154P. Gender Systems: North America
M154Q. Gender Systems: Global
M155. Women's Voices: Their Critique of Anthropology of Japan
M155Q. Women and Social Movements

Urban Anthropology
M175Q. Ideology and Social Change in Contemporary China
M175R. Societies of Central Asia
M175S. Japan
M175T. Civilizations of East Asia
M175U. Cultures of the Indonesian Archipelago
M175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea
M177. Cultures of the Pacific

Chicana and Chicano Studies
M101. Theoretical Concepts in Chicana and Chicano Studies

M105A, M105B. History of Chicano Peoples

Communication Studies
M124. Psychology of Language and Gender

130. Cultural Factors in Interpersonal Communication
M153. The Media and Aggression against Women

Community Health Sciences
M140. Health Issues for Asian Americans and Pacific Islanders: Myth or Model?

Comparative Literature
M168. Korean American Literature
M171. Chinese Immigrant Literature and Film

Economics
M2. Trade Unions and Professional Associations

English
M102A. Asian American Literature to 1980
M102B. Asian American Literature since 1980

119. Literature of California and the American West
140A. Criticism: History and Theory
178A. Perspectives in Study of American Culture
178B. Intercultural Encounters in Contemporary American Literature
M179C. Topics in Asian American Literature
Scope 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 also offers two minors — Asian Humanities minor and Asian Languages minor. All courses 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, Japanese 6, Korean 6, South Asian 41C, Southeast Asian 51C, 61C, 71C, or 81C, or equivalent); one civilization course (e.g., Chinese 50, Japanese 50, 60, Korean 50) or one introduction to religions course (e.g., Asian 60, 60W, 61, South Asian 60, Southeast Asian 30) within the department.

Transfer Students
Transfer applicants to the Asian Humanities major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tage-log, 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, Japanese 6, Korean 6, South Asian 41C, 110C, Southeast Asian 51C, 61C, 71C, or 81C, or equivalent); one introduction to religions course from at least four of the following areas: China, Japan, Korea, South Asia, Asia.

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, 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 equivalent, 50.

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: Five upper division Chinese language courses (of which at least two must be in the premodern language or texts), three upper division Chinese literature courses, two upper division electives in Chinese, and one upper division elective within the department.

Japanese B.A.
Preparation for the Major
Required: Japanese 6 or equivalent, and 50 or 60.

Transfer Students
Transfer applicants to the Japanese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Japanese and one Japanese civilization or images of Japan course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Five upper division Japanese language courses (of which at least two must be in the premodern language or texts), three upper division Japanese literature courses, two upper division electives in Japanese, and one upper division elective within the department.

Korean B.A.
Preparation for the Major
Required: Korean 6 or equivalent, 50.

Transfer Students
Transfer applicants to the Korean major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean and one Korean civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/
The Major

Required: Five upper division Korean language courses, three upper division Korean literature courses, two upper division electives in Korean, and one upper division elective within the department.

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Honors Program

Admission

The honors program is open to 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 Winter Quarter of their junior year and, at the time of admission, must have completed at least two upper division courses in their major. For application forms and further information, contact the departmental undergraduate advisor.

Requirements

Two honors projects, a seminar, and an honors thesis are required. The honors project consists of special research on a topic in an upper division course in their major selected in consultation with the instructor, resulting in a written report to be completed with a grade of B+ or better, in addition to the normal course requirements. All honors students are required to demonstrate the ability to conduct research by writing an honors thesis. In preparation for this project, students must take Asian 191H, in which they write a seminar paper. At least one honors project must be completed prior to enrolling in course 191H. After completing the seminar, they must also take Asian 198 during which they revise their seminar paper into an honors thesis under the direction of a faculty member. Course 198 (4 units minimum) must be taken in addition to courses applied toward major requirements. Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper division courses required for the major and an overall GPA of 3.5 or better, (3) complete an honors project in each of two upper division courses within the department, (4) complete an undergraduate seminar within the department, and (5) complete Asian 198 with a grade of A.

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 file a petition with the departmental undergraduate adviser.

Required Lower Division Courses (8 units): Two civilization courses (e.g., Chinese 50, Japanese 50, Korean 50) or two introduction to religions courses (e.g., Asian 60, 60W, 61, South Asian 60, Southeast Asian 30) within the department.

Required Upper Division Courses (20 units): Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies).

No more than 4 units may be applied toward both this minor and a major or minor in another department or program, and at least 20 units must be taken in residence at UCLA.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Asian Languages Minor

The Asian Languages minor is designed to recognize a serious commitment to the study of Asian languages. It is especially suited for students who wish to augment their major program in the College of Letters and Science with mastery of an Asian language. The lower division survey course in civilization or religious tradition provides students with an essential introduction to the diverse cultural heritages of Asia. The upper division language courses provide students with advanced skills in speaking, aural comprehension, reading, and writing an Asian language.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA, and file a petition with the departmental undergraduate adviser.

Required Lower Division Courses (8 units): Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, Japanese 6, Korean 6, South Asian 41C, Southeast Asian 51C, 61C, 71C, or 81C, or equivalent); one civilization course (e.g., Chinese 50, Japanese 50, Korean 50) or one introduction to religions course (e.g., Asian 60, 60W, 61, South Asian 60, Southeast Asian 30) 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.

No more than 4 units may be applied toward both this minor and a major or minor in another department or program, and at least 20 units must be taken in residence at UCLA.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Asian Languages and Cultures.

Asian

Lower Division Courses

60. Introduction to Buddhism. (5) (Formerly numbered East Asian Languages and Cultures 60.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 60W. Knowledge of Asian languages not required. General survey of development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of the religion. Letter grading.

60W. Introduction to Buddhism. (5) (Formerly numbered East Asian Languages and Cultures 60W.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 60. 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 the religion. Particular attention to problems involved in study of religion. Satisfies Writing II requirement. Letter grading.
61. Introduction to Zen Buddhism. (5) (Formerly numbered East Asian Languages and Cultures 61.) 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.

70A-70B-70C. Popular Culture in East Asia. (5-5-5) (Formerly numbered East Asian Languages and Cultures 70A-70B-70C.) Lecture, three hours; discussion, one hour. Popular culture in China, Japan, Korea, and Vietnam. Topics include popular religion, language, literature, arts, material culture, cinema, and music. Themes include identities, gender, sexuality, and class relations. Letter grading. 70A. 17th through 19th Centuries; 70B. 1895 to 1945; 70C. From 1945.

Upper Division Courses

120. Languages and Cultures of East Asia. (4) (Formerly numbered East Asian Languages and Cultures 120.) Lecture, three hours; discussion, one hour. Reading knowledge of Chinese 3 or Japanese 3 or Korean 3 or 50. Comparative perspective on three major East Asian languages — Chinese, Japanese, and Korean — to show what they share and how they differ in terms of linguistic features, historical development, and larger cultural set-tings in which the three languages are used. P/NP or letter grading.

120FL. Readings in East Asian Languages. (2) (Formerly numbered East Asian Languages and Cultures 120FL.) 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.

138. Travel Writing in East Asia. (4) (Formerly numbered East Asian Languages and Cultures 138.) Lecture, three hours. Recommended preparation: Chinese 50 or Japanese 50 or 60. Exploration of travel writing about countries of East Asia, primarily China and Japan, with focus on English translations of works by native writers and by foreign visitors through the centuries. Concurrently scheduled with course 239. Letter grading.

139. The Garden in East Asia. (4) (Formerly numbered East Asian Languages and Cultures 139.) Lecture, three hours. Recommended preparation: Chinese 50 or Japanese 50 or 60. Interdisciplinary survey of historic and literary gardens in East Asian cultures, primarily China and Japan, with focus on English translations of texts by native writers and recent Western scholarship. Concurrently scheduled with course 239. Letter grading.

161. Buddhist Literature in Translation. (4) (Formerly numbered East Asian Languages and Cultures 161.) Readings, three hours. Recommended preparation: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Readings from variety of Buddhist literature of Indic and non-Indic origin, with emphasis on key Buddhist themes and critical issues in cross-cultural interpretation of Asian religious texts. Letter grading.

162. Buddhist Meditation Traditions. (4) (Formerly numbered East Asian Languages and Cultures 162.) Lecture, three hours. Knowledge of Asian languages not required. Survey of theory and practice of meditation in Buddhism, with emphasis on Théravada and Zen schools. Topics include various typologies of meditation, symbolic relationship between meditation and soteriological processes by which doctrinal innovation prompts changes in meditative practice. Letter grading.

163. Buddhism across Boundaries. (4) (Formerly numbered East Asian Languages and Cultures 163.) 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.

164. Buddhism and Early Religious History of Pakistan, Afghanistan, and Central Asia: Introduc-tion. (4) (Formerly numbered East Asian Languages and Cultures 164.) Lecture, three hours. Knowledge of Asian languages not required. Survey of regions and religions of Central Asia, especially Buddhism in Afghanistan and Pakistan. Topics include archaeol-o-gical, art historical material, and linguistic approaches to history of religions. Letter grading.

170. Approaches to Study of Religion. (4) (Formerly numbered East Asian Languages and Cultures 170.) Seminar, three hours. Investigation of many ways in which religion and religions may be studied, including anthropological, sociological, psychological, political, literary, and other approaches. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course 270. Letter grading.

181. Reading Colloquium: East Asian Languages and Cultures. (1) (Formerly numbered East Asian Languages and Cultures 181.) Seminar, one hour. Corequ: course 198 or 199. Designed to bring together advanced undergraduate students undertaking individual supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one or more faculty members. P/NP or letter grading.

181A. Variable Topics Seminar: Life Writing in East Asia. (4) (Formerly numbered East Asian Languages and Cultures 181A.) Seminar, three hours. Research seminar on selected topics. Readings of biography and autobiography as elements of East Asian cultural traditions, with focus rotating between China, Japan, and Korea. Readings in English and relevant East Asian languages, discussion, and development of culminating project. Letter grading.

181B. Variable Topics Seminar: Buddhist Studies. (4) (Formerly numbered East Asian Languages and Cultures 181B.) Seminar, three hours. Limited to jun-iors/seniors. Research seminar on selected topics in Buddhist studies. Reading, discussion, and development of culminating project. Letter grading.

191H. Honors Seminars: Asian Languages and Cultures. (4) (Formerly numbered East Asian Languages and Cultures 191H.) Seminar, three hours. Limited to departmental and College honors students. Introduction to research methods and critical approaches to study of Asia in preparation for writing of senior honors thesis. Letter grading.

193. Speaker Series Seminars: Asian Languages and Cultures. (2) Seminar, two hours. Limited to undergraduate students. Introduction to latest scholarship in field of Asian studies. Attendance at selected scholarly presentations required, as well as sessions with faculty advisor to discuss presentations and published works of speakers. P/NP grading.

198. Honors Research in Asian Languages and Cultures. (4) (Formerly numbered East Asian Languages and Cultures 198.) Tutorial, to be arranged. Preparation: one undergraduate departmental seminar. Limited to juniors/seniors. Tutorial in which students develop and write honors theses under direction of faculty member. Individual contract required. Letter grading.

199. Directed Research in Asian Languages and Cultures. (2 to 8) (Formerly numbered East Asian Languages and Cultures 199.) Tutorial, to be arranged. Recommended preparation: advanced reading knowledge of one Asian language. Limited to jun-iors/seniors. Supervised individual research or inves-tigation 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

200. Research Methods in East Asian Linguistics. (4) (Formerly numbered East Asian Languages and Cultures 200.) Seminar, three hours. Research methods for graduate students in East Asian languages, discussion, and development of culminating project. S/U or letter grading.

201. Proseminar: Approaches to Buddhist Stud-ies. (4) (Formerly numbered East Asian Languages and Cultures 201.) 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.


210. Proseminar: Cultural and Comparative Stud-ies. (4) (Formerly numbered East Asian Languages and Cultures 210.) Seminar, three hours. Designed for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian cultures in the modern period. Readings include Western theoretical works balanced with texts taken congruent approaches to East Asian topics. S/U or letter grading.


220A-220B. Seminars: Topics in Cultural Studies. (4-4) (Formerly numbered East Asian Languages and Cultures 220A-220B.) Seminar, three hours. Topics include recent investigation of methodological 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.

222. Seminar: Corpus Linguistics. (4) (Formerly numbered East Asian Languages and Cultures 222.) Seminar, three hours. Construction and exploitation of 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. S/U or letter grading.

230A-230B. Seminars: Theoretical Topics in East Asian Literature. (4-4) (Formerly numbered East Asian Languages and Cultures 230A-230B.) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Concerns of litera-ry theory which are brought to fore by reading of lit-erature from or about East Asia. Readings from both Western and Eastern theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.
C238. Travel Writing in East Asia. (4) (Formerly numbered East Asian Languages and Cultures C238.) Lecture, three hours. Recommended preparation: proficiency in Chinese 50 or Japanese 50 or 60. Exploration of travel writing about countries of East Asia, primarily China and Japan, with focus on English translations of works by native writers and by foreign visitors through the centuries. Concurrently scheduled with course C138. Letter grading.

C239. The Garden in East Asia. (4) (Formerly numbered East Asian Languages and Cultures C239.) Lecture, three hours. Recommended preparation: Chinese 50 or Japanese 50 or 60. Interdisciplinary survey of historic and literary gardens in East Asian cultures, primarily China and Japan, with focus on English translations of texts by native writers and recent Western scholars. Concurrently scheduled with course C139. Letter grading.

240A-240B. Seminars: Topics in East Asian Literary History. (4-4) (Formerly numbered East Asian Languages and Cultures 240A-240B.) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Critical issues common to literary historiography in East Asia, including periodization, canons, decanonicization between high and low culture, the written and the oral, etc. In Progress (240A) and letter (240B) grading.

243. Translation Workshop: East Asian Texts. (2) (Formerly numbered East Asian Languages and Cultures 243.) Seminar, two hours. Requisite: Chinese 200 or Japanese 200 or Korean 200. Translation, grammatical analysis, and discussion of selections from premodern texts that enjoyed classical status throughout East Asia.

245A-245B. Seminars: Position of Modernity in East Asian Literature. (4-4) (Formerly numbered East Asian Languages and Cultures 245A-245B.) Seminar, three hours. Preparation: at least five years of an East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with readings largely from European sources. In-class debate probes relevance of these readings for work as Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.

M251. Seminar: Literary Theory. (3) (Formerly numbered East Asian Languages and Cultures M251.) (Same as Comparative Literature M294.) Lecture, two hours; discussion, three hours. Recommended preparation: seminar in literary criticism. Readings of primary and secondary 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) (Formerly numbered East Asian Languages and Cultures 281A-281B.) Seminar, three hours. Description and evaluation of modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event, providing hands-on experience in fieldwork and archiving methods. Consideration of approaches ranging from written transcription and textualization to audio and video presentations. In Progress (281A) and S/U or letter (281B) grading.

M292. Japan in Age of Empire. (4) (Formerly numbered East Asian Languages and Cultures M292.) (Same as Anthropology M276 and History M286.) Seminar, three hours. Designed for graduate students. Since the 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 hard fought area of study of colonialism. S/U or letter grading.

297. Life Writing in East Asia. (4) (Formerly numbered East Asian Languages and Cultures 297.) Seminar, three hours. Readings of biography and autobiography in modern literary traditions, with focus rotating between China, Japan, and Korea. Readings in English and relevant East Asian languages. Letter grading.

299. Independent Study. (Minimum 2 to 6) (Formerly numbered East Asian Languages and Cultures 299.) Design for graduate students. Guided research and writing of a 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.

301. Teaching an East Asian Language as a Foreign Language. (4) (Formerly numbered East Asian Languages and Cultures 301.) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered East Asian Languages and Cultures 375.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Teaching Asian Languages at College Level. (4) (Formerly numbered East Asian Languages and Cultures 495.) Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures or South and Southeast Asian languages. Weekly team-teaching, teaching methodology, developing course materials, and testing. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

496C. Computer Technologies for Teaching College-Level Chinese. (2) (Formerly numbered East Asian Languages and Cultures 496C.) 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.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 8) (Formerly numbered East Asian Languages and Cultures 597.) Tutorial, to be arranged. S/U grading.

599. Research for and Preparation of M.A. Thesis. (4 to 8) (Formerly numbered East Asian Languages and Cultures 599.) Tutorial, to be arranged. Maximum of 8 units may be applied toward M.A. degree requirements. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (4 to 8) (Formerly numbered East Asian Languages and Cultures 599.) Tutorial, to be arranged. S/U grading.

Chinese

Lower Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. 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.

2. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who have already certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills—speaking, listening comprehension, reading, and writing. P/NP or letter grading.

1A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who have already certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills—speaking, listening comprehension, reading, and writing. P/NP or letter grading.
2A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A or Chinese placement test. 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 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

3A. Elementary Modern Chinese for Advanced Beginners. (5) (Formerly numbered 3R.) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A or Chinese placement test. 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 Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills in listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course 3 is equivalent to completion of course 3A. P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 4 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at intermediate levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, five hours. Enforced requisite: course 4A or Chinese placement test. 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. (Formerly numbered 4C.) Lecture, four hours. Enforced requisite: Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. P/NP or letter grading.

6. Intermediate Modern Chinese. (5) Lecture, five hours. Enforced requisite: course 5 or Chinese placement test. 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) (Formerly numbered 6R.) Lecture, five hours. Enforced requisite: course 5A or Chinese placement test. 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. (Formerly numbered 5C.) Lecture, four hours. Enforced requisite: course 6C 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. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. Letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 15 hours. Enforced requisite: course 3 or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, idiomatic expressions, and both traditional and simplified characters. Completion of course 10 is equivalent to completion of course 6. Offered in summer only. Letter grading.

150B. Traditional Narrative and Drama. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Readings from narrative and dramatic writings of traditional China, with emphasis on self and society, growth of fictionality, subjectivity, and gender representation. May be taken independently for credit. 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 politics of Chinese modernism, nationalism, feminism, mass culture, and media. Letter grading.


155. Topics in Chinese Cinema. (4) Lecture, three hours; film viewing, four hours. Knowledge of Chinese not required. Critical understanding of films from Hong Kong, Taiwan, and China to be offered. Examination of questions of cultural identity, transnationalism, postmodernity, and intersections between political and culture in this “ Greater China” region. P/NP or letter grading.

160A. Lyrical Traditions. (4) (Formerly numbered 150A.) Lecture, three hours. Knowledge of Chinese not required. Readings in English translation of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. May be taken independently for credit. Concurrency scheduled with course C250A. P/NP or letter grading.

140A-140B-140C. Readings in Classical Chinese Literature. (4-4-4) Readings/discussion, three hours. Enforced requisite: course 110B or Chinese placement test. Readings and discussions of works of premodern Chinese literature. Each course may be taken independently for credit. Letter grading. 140A. Poetry; 140B. Prose; 140C. Prose.

14150A. Lyrical Traditions. (4) (Formerly numbered 150A.) Lecture, three hours. Knowledge of Chinese not required. Readings in English translation of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. May be taken independently for credit. Concurrency scheduled with course C250A. P/NP or letter grading.

150B. Traditional Narrative and Drama. (4) Lecture, three hours; film viewing, four hours. Knowledge of Chinese not required. Readings from narrative and dramatic writings of traditional China, with emphasis on self and society, growth of fictionality, subjectivity, and gender representation. May be taken independently for credit. 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 politics of Chinese modernism, nationalism, feminism, mass culture, and media. Letter grading.


155. Topics in Chinese Cinema. (4) Lecture, three hours; film viewing, four hours. Knowledge of Chinese not required. Critical understanding of films from Hong Kong, Taiwan, and China to be offered. Examination of questions of cultural identity, transnationalism, postmodernity, and intersections between political and culture in this “Greater China” region. P/NP or letter grading.

160A. Lyrical Traditions. (4) (Formerly numbered 150A.) Lecture, three hours. Knowledge of Chinese not required. Readings in English translation of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. May be taken independently for credit. Concurrency scheduled with course C250A. P/NP or letter grading.

165. Introduction to Chinese Buddhist Texts. (4) Lecture, three hours. Enforced 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 taken from translated Indian sutras, indigenous exegetical materials, Chinese comparative sources, and written works of premodern Chinese literature. Each course may be taken independently for credit. Letter grading.

C175. Introduction to Chinese Thought. (4) (Formerly numbered 175.) Lecture, three hours. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 B.C.E.), with focus on invention of “Confucian” tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrently scheduled with course C275. Letter grading.

180. Chinese Mythology. (4) Lecture, three hours. Knowledge of Chinese not required. Survey of corpus of traditional Chinese mythology, with focus on examples preserved in a variety of early texts, later evolutions in dramatic and fictional works, and evidence from visual arts. Letter grading.

186. Archaeology in China. (4) (Formerly numbered 190.) Lecture, three hours. 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 of all periods. Letter grading.

187. Chinese Etymology and Calligraphy. (4) (Formerly numbered 195.) Lecture, three hours. Enforced requisite: course 110B or Chinese placement test. Coverage of (1) development of Chinese writing system from “Pottery Inscriptions” 6,000 years ago to modern “Simplified Forms” and studies of Six Scripts principles which 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.

191A. Variable Topics Seminar: 20th-Century China and Taiwan. (4) (Formerly numbered 197B.) 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. Letter grading.

Graduate Courses

200A. Research Methods in Chinese. (4) (Formerly numbered 200.) Seminar, three hours. Requisite: course 110C. Lectures and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliographical, biographical, and geographical sources; encyclopedias; anthologies; rare editions; illustrated matter and calligraphy. S/U grading.

200B. Proseminar: Premodern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Chinese literature, with focus on research tools in the field and on scholarship in English on major literary genres, periods, and authors. S/U or letter grading.

200C. Proseminar: Modern Chinese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Chinese literature, with focus on research tools and on scholarship in English on modern literary trends and genres. S/U or letter grading.


205. Methods and Issues in 20th-Century Chinese Literature and Culture. (4) Seminar, three hours. Methodology course for all incoming graduate students in 20th-century Chinese literature and culture. Discussion of major theoretical and textual issues and methods.

210. Modern Chinese Literary History. (4) Lecture, three hours. Designed for graduate students. Discussion of history of modern Chinese literature, focusing on sounx, contrary genres, and critical approaches to studying the relationship between literature and history.

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.

220A-220B. Western Theory and Chinese Texts. (4-4) Seminar, three hours. Discussions to be framed by Western literary and cultural theory, investigating both challenges and limitations Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress (220A) and S/U or letter grading (220B).

224A-224B. Seminars: Selected Topics in Chinese Linguistics. (4-4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics (morphology, grammar, and corpus linguistics, sociolinguistics, language change). May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

230A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4-4) Seminar, three hours. Selected readings in 20th-century Chinese literature, emphasizing fiction. Discussion of individual research projects. May be repeated for credit. In Progress (230A) and letter (230B) grading.

241A-241B. Heaven, Earth, and Monarchy in Ancient China. (4-4) Seminar, three hours. Preparation: working knowledge of classical Chinese. Close reading of chapters from the Han dynasty collection of writings on the forms of music, social interaction, education, marriage, and mourning in the Zhou royal court, with discussion of topics in recent cultural semiotics and archaeology. In Progress (241A) and letter (241B) grading.

242. Chinese Classics and Exegetical Traditions. (4) Seminar, three hours. Preparation: command of literary Chinese. Reading and discussions of selections from one of the Chinese classics (Confucian Five Classics, others), with introduction to exegetical history, secondary scholarship, and search methodology. Topics vary from year to year. May be repeated for credit.


245A-245B. Seminars: Traditional Chinese Narrative and Drama. (4-4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generic, hermeneutical, and historical approaches. Topics in narrative selected from genres from Chou through Ch’ing periods. Topics in drama selected from tea-ch’u and ch’uan-ch’i. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

250A. Lyrical Traditions. (4) Lecture, three hours. Enforced requisite: two years of classical Chinese or working knowledge of poetical and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

250A-255B. Chinese Literary Criticism. (4-4) (Formerly numbered 250A-255B.) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.


265A-265B. Seminars: Chinese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

C275. Introduction to Chinese Thought. (4) Lecture, three hours. Knowledge of Chinese not required. Survey of Chinese thought as represented in texts of Zhou through early Han periods (circa 1000 to 100 B.C.E.), with focus on invention of “Confucian” tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrently scheduled with course C175. Letter grading.

290A-290B. Seminars: Selected Topics in Chinese Archaeology. (4-4) Seminar, three hours. Enforced requisite: course 186. Discussion and research on major problems about Chinese archaeology and different interpretations to most important archaeological finds, with emphasis on studies of Xia and Shang cultures and Xia and Shang dynasties. May be repeated for credit. In Progress (290A) and letter (290B) grading.

295A-295B. Seminars: Selected Topics in Chinese Cultural History. (4-4) Seminar, three hours. Discussion and research on major problems related to Chinese culture, such as beginnings of the Chinese civilization and Chinese dynastic history. Other topics include cultural developments of ancient and medieval China. May be repeated for credit. In Progress (295A) and letter (295B) grading.

Japanese

Lower Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/NP or letter grading.

2. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

4. Intermediate Modern Japanese. (5) Lecture, five hours. Enforced requisite: course 3 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing, vocabulary building skills, language learning skills, and sociocultural knowledge. 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 Japanese placement test. Course 100A or Japanese placement test is enforced requisite to 100B; course 100B or Japanese placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

6. Intermediate Modern Japanese. (5) Lecture, five hours. Enforced requisite: course 5 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Development of overall competency in reading intermediate-level Japanese materials. Instruction in understanding grammar and practical expressions, as well as expansion of Kanji and vocabulary to achieve higher ability in comprehension of written materials in Japanese. Translations from Japanese to English, as well as from English to Japanese. P/NP or letter grading.

8. Elementary Japanese: Intensive. (15) Lecture, five hours; discussion, ten hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Japanese, including pronunciation, grammar, and Japanese characters, with emphasis on all four basic language skills — speaking, listening, comprehension, reading, and writing. Offered in summer only. Letter grading.

10. Intermediate Modern Japanese: Intensive. (15) Lecture, ten hours; discussion, ten hours. Enforced requisite: course 3 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. Letter grading.


60. Images of Japan: Literature and Film. (5) Lecture/screenings, four hours; discussion, two hours. Knowledge of Japanese culture, literature, or language not required. Introduction to visual and textual images of Japan’s literary heritage, including documentary and feature films based on Japan’s literary classics. Letter grading.


7. Intermediate Readings in Modern Japanese. (4) Lecture, three hours. Enforced requisite: course 5 or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Development of overall competency in reading intermediate-level Japanese materials. Instruction in understanding grammar and practical expressions, as well as expansion of Kanji and vocabulary to achieve higher ability in comprehension of written materials in Japanese. Translations from Japanese to English, as well as from English to Japanese. P/NP or letter grading.

10. Intermediate Modern Japanese: Intensive. (15) Lecture, ten hours; discussion, ten hours. Enforced requisite: course 3 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. Letter grading.

M40. Language and Gender: Introduction to Gender and Stereotypes in English, Japanese, and Russian. (5) (Same as Communication Studies M40 and Russian M470.) Lecture, three hours; discussion, one hour. Introduction to language from sociological perspective of gender. Use of research and examples in English, Japanese, and Russian to explore nature of male and female “genderlects” and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, language acquisition. P/NP or letter grading.


60. Images of Japan: Literature and Film. (5) Lecture/screenings, four hours; discussion, two hours. Knowledge of Japanese culture, literature, or language not required. Introduction to visual and textual images of Japan’s literary heritage, including documentary and feature films based on Japan’s literary classics. Letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Readings/discussion, three hours. Enforced requisite: course 100C or Japanese placement test. Course 130A or Japanese placement test is enforced requisite to 130B; course 130B or Japanese placement test is enforced requisite to 130C. Readings and discussion of works by modern Japanese writers. Letter grading.

140A-140B-140C. Readings in Classical Japanese Literature. (4-4-4) Discussion, three hours; readings, nine hours. Enforced requisite: course 110 or Japanese placement test. Readings and discussion of works of premodern Japanese literature. Each course may be taken independently for credit. 140A. Heian; 140B. Medieval; 140C. Edo.

C149. Introduction to Kambun and Other Literary Styles. (4) Lecture, three hours. Enforced requisite: course 110 or Japanese placement test. Introduction to Kambun, the Japanese literary rendering of premodern Sino-Japanese, and Sorobun, the epistolary style. Concurrently scheduled with course C249. Letter grading.


151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Prerequisite: English Composition 3 or SH or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from the 16th century to post-World War II. P/NP or letter grading.

154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Prerequisite: English Composition 3 or SH or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Use of fiction and film to explore postwar Japanese culture, with emphasis on self-representation of contrastive study of Japanese and Korean, or one broad cross-disciplinary and cross-cultural context. P/NP or letter grading.

155. Topics in Japanese Cinema. (4) Lecture, three hours; discussion, one hour. Prerequisite: English Composition 3 or SH or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Critical and historical examination of Japanese cinema. 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.


161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Religious traditions accompanying rapid industrialization, urbanization, militarism, and defeat in the Pacific War, including analyses of Shinto mythology, secular positivism, Buddhist reformation movements, new religious movements, and continuing role of traditional village/family religious rites. Letter grading.

C171. Topics in Japanese Studies. (4) Lecture, three hours. Enforced requisite: course 100C or Japanese placement test. Advanced course that explores Japanese culture through in-depth reading of Japanese-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. Concurrently scheduled with course C271. P/NP or letter grading.

175. Introduction to Japanese Thought. (4) Lecture, three hours. 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, National Learning School, and modern Japanese philosophers such as Nishida Kitaro and Watsuji Tetsuro. Attention also to representative types of contemporary thinking about Japanese thought, especially the question of what might qualify as recognizably “Japanese” in aesthetics, ethics, and philosophy. Letter grading.


C182. Japanese Folklore. (4) (Formerly numbered CM 182.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of the Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and Shinto/Buddhist belief systems. Concurrently scheduled with course C282. Letter grading.


191A. Variable Topics Seminar: Classical Japanese. (4) (Formerly numbered 197A.) Seminar, three hours. Research seminar on selected topics in premodern Japanese literature and thought. Reading, discussion, and development of culminating project. Letter grading.


191C. Variable Topics Seminar: Personalities in Japanese Civilization. (4) (Formerly numbered 188.) Seminar, three hours. Research seminar on selected topics in modern Japan. Reading, discussion, and development of culminating project. Letter grading.

Graduate Courses

200A. Research Methods in Japanese Linguistics. (4) (Formerly numbered 200A.) Seminar, three hours. Introduction to different research paradigms for Japanese linguistics, as well as resources associated with these approaches. Discussion of linguistic knowledge in application to Japanese Buddhist scholarship. Kasugao-style and coverage of newer approaches from modern Western linguistics. S/U or letter grading.

200B. Proseminar: Classical Japanese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of premodern Japanese literature, with focus on research tools in the field and on scholarship in English on history of books in Japan as well as on major literary genres. S/U or letter grading.

200C. Proseminar: Modern Japanese Literature. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of modern Japanese literature, with focus on research tools and on scholarship in English on modern literary trends and genres. S/U or letter grading.


201A-201B. Introduction to Reading Japanese Academic Texts. (4-4) Lecture, three hours. Requisite: course 100A. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern Japanese-language academic texts, both prewar and postwar, with focus on modern reading; students who need to improve other skills should take additional courses. S/U or letter grading.


223. Structure of Japanese II. (4) Lecture, three hours. Recommended preparation: two or more years of Japanese language study. Survey of Japanese language at an advanced level. (1) word level — word class, verbal morphology and semantics; (2) clause/sentence level — grammatical constructions; (3) discourse level — point of view, elipses, topicalization. Concurrently scheduled with course CM123. Letter grading.

224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics. (4-4) Seminar, 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 Japanese Narratives. (4-4) Seminar, three hours. Requisite: course CM122. Analysis of selected modern and classical Japanese narratives. Emphasis on exploration of how grammatical features such as tense, aspect, 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, which has served as backbone for development of Japanese 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, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks.

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.

240A-240B. Seminars: Selected Topics in Japanese Literature. (4-4) Seminar, three hours. May be repeated for credit. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: Japanese Classics. (4-4) Seminar, three hours. Pros and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress (241A) and letter (241B) grading.


245A-245B. Seminars: Medieval Japanese Literature. (4-4) Seminar, three hours. Preparation: one year of classical Japanese. Selected readings in travel poetry, travel diaries, and other genres of Japanese travel literature of Heian, Kamakura, Nambokucho, and Muromachi periods. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

249. Introduction to Kambun and Other Literary Styles. (4) Lecture, three hours. Requisite: course 110 or Japanese placement test. Introduction to Kambun, the Japanese literary rendering of premodern Sino-Japanese, and Sorobun, the epistolary style. Concurrently scheduled with course C149. Letter grading.


265A-265B. Seminars: Japanese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) 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. Designed for Korean-heritage learners. Emphasis on standard spoken Korean and Korean writing, with emphasis on conversation. P/NP or letter grading.

2. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 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 1. P/NP or letter grading.

3. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A 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 1P. P/NP or letter grading.


5. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 4 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5 or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

7. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 6 or Korean placement test. Not open to students who have attended elementary school in Korea for more than two years or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners. Emphasis on four skills (speaking, grammar, readings, and conversation) and modern Korean. P/NP or letter grading.

8. Elementary Korean: Intensive. (15) Lecture, ten hours; discussion, ten hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Conversation, composition, and readings with structural analysis in modern Korean. Offered in summer only. Letter grading.

Upper Division Courses

100A-100B-100C. Advanced Modern Korean. (4-4-4) Lecture, five hours. Enforced requisite: course 6 or Korean placement test. Concurrently scheduled with course C173. Enforced requisite: course 100B or Korean placement test is enforced requisite to 100B; course 100B or Korean placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of courses 6/100A. Readings of modern prose and poetry, with emphasis on grammar and vocabulary. Designed for upper-graduates, S/U (graduates), or letter grading.

101A-101B-101C. Advanced Modern Korean. (4-4-4) Lecture, three hours. Enforced requisite: course 100C or Korean placement test. Course 101A or Korean placement test is enforced requisite to 101B; course 101B or Korean placement test is enforced requisite to 101C. Advanced readings and discussion for students planning to do advanced coursework or research on Korean. Topics selected from magazines, journals, and books related to humanities and social sciences. P/NP (undergraduates), S/U (graduates), or letter grading.

102A-102B-102C. Advanced Korean Conversa- tion. (4-4-4) Lecture, three hours. Enforced requisite: course 100C or Korean placement test. Course 102A or Korean placement test is enforced requisite to 102B; course 102B or Korean placement test is enforced requisite to 102C. Not open to students who attended elementary school in Korea for more than two years or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of courses 101/102. Reading and discussion of modern Korean authors, designed to further improve spoken proficiency. P/NP or letter grading.

103A-103B-103C. Readings in Sino-Korean Char- acters. (4-4-4) Lecture, two and one-half hours. Required: course 100C or Korean placement test. Course 103A or Korean placement test is requisite to 103B; course 103B or Korean placement test is requisite to 103C. Sino-Korean vocabulary and characters necessary for advanced and superior level of knowledge in Korean. Sino-Korean characters are used differently from same Chinese characters used in contemporary Chinese, in terms of phonetic meaning, and word formation. Professional-level Korean speakers need to be able to read at least 1,800 Sino-Korean characters. Reinforcement of collocation patterns and semantic association of Sino-Korean vocabulary. P/NP or letter grading.
151. Korean Literature in Translation: Modern. (4) Lecture, three hours. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of Modern Korean literature of the 20th century. P/NP or letter grading.


160. Korean Buddhism. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Sinic traditions of Buddhism, and theological systems and meditative techniques, and independent Son (Zen) schools of Korea. P/NP or letter grading.

165. Introduction to Korean Buddhist Texts. (4) Lecture, three hours. Enforced requisite: course 100A or Chinese 110C or Korean placement test. Introduction to reading premodern Korean Buddhist texts written in Korean. Korean versions of Confucian, Buddhist, and Shintoism 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. Knowledge of Korean not required. Historical development of Christianity in Korea, beliefs and practices, impact of Christianity on modern Korean culture and society. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.

175. Introduction to Traditional Korean Thought. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korean thought from the earliest records to the 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and the West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4) Lecture, three hours. Enforced requisite: course 100C or Chinese 110C or Korean placement test. Reading in premodern Koryo and Choson texts on politics, society, and culture. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. P/NP or letter grading.

177. Introduction to Modern Korean Thought. (4) Lecture, two hours; discussion, one hour. Requisite: course 50. Knowledge of Korean not required. Survey of Korean thought in the late 19th and 20th centuries, including religious thought, political thought, feminism, nationalism, and economic thinking and practice. P/NP or letter grading.


180A-180B. Cultural History of Korea. (4-4-4) Lecture, three hours; discussion, one hour. Requisite: course 50. Knowledge of Korean not required. Ex- amination of evolution of Korean culture and society within the context of political, social, and economic history. Consideration of both higher and popular culture, including popular culture, social, and economic history. Consideration of both the modernization movement and of the postmodern movement in Korean society. P/NP or letter grading.

181. Reading Korean Cultural Landscape. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to Korean culture from historical/geographical perspective. Examination of human cultural imprint on landscapes, linguistic, rural, and urban landscapes. Letter grading.

183. Korean Folklore. (4) (Formerly numbered M183.) Lecture, three hours. Survey of Korean folklore and its perspectives and methods — oral literature, performing arts, and cultural, andragogy of genres, rise of literate kinds and forms, periodization, and critical issues in literary history. Particular area of focus to be a nationalist canon that governs literary studies in Korea and the West. Letter grading.


191A. Variable Topics Seminar: Traditional Korea. (4) (Formerly numbered 197A.) Seminar, three hours. Research seminar on selected topics of interpretation in Korean history from earliest times through the mid-19th century. Coverage varies from term to term and includes such topics as state formation, historical writing, or “sprouts of capitalism” thesis. Reading, discussion, and development of culminating project. Letter grading.


Graduate Courses

200. Bibliography and Methods of Research in Korean (4) Lecture, three hours. Requisites: course 101C, Chinese 110C. Review of basic Western and modern Korean reference books, with concentration on Korean literature and language, and survey of basic bibliographical material. In addition, introduction to most important primary sources in student’s field of specialization. Letter grading.

205A-C205B-C205C. 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 an advanced level, with coverage in Korean of material in student’s field of specialization. Letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of list of books central to field of modern Korean history, including such topics as Korean capitalism and communism, intellectual history, social movements, and the Korean War.

212. 19th-Century Korea. (4) Lecture, three hours; discussion, one hour. Requisite: course 180B or 180C. Proseminar covering crucial period from coro- nation of Sunjong in 1807 to annexation of Korea by Japan in 1910, including major historical scholarship on political, diplomatic, social, economic, intellectual, and cultural history. Letter grading.

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115. Readings in Sanskrit. (4) (Formerly numbered Indic 115.) Lecture, three hours. Requisite: course 110C. Oral and written comprehension of Sanskrit literature. Open to students’ needs. May be repeated for credit with consent of instructor. P/NP (undergraduates), SU (graduates), or letter grading.

150. Classical Indian Literature in Translation. (4) (Formerly numbered Indic 150.) Lecture, three hours. Knowledge of Asian languages not required. Survey of some landmarks of classical Indian literature from second millennium B.C.E. to 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.

175. Introduction to Indian Philosophy. (4) (Formerly numbered Indic 175.) Lecture, three hours. Survey of main trends in Indian philosophy from ancient to modern times.

185. Women and Gender in Ancient India. (4) (Formerly numbered Indic 185.) Lecture, three hours. Knowledge of Asian languages not required. Examination of position and function of women in ancient India, primarily through study of key religious and legal texts. Topics include women’s life cycle, relation to social institutions, and challenges to these ideals, especially in narrative literature. P/NP or letter grading.

Graduate Courses

M222A-M222B. Vedic. (4-4) (Formerly Indic 222A-222B.) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to course 110C. Characteristics of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit.

230. Selected Readings in Sanskrit Texts. (4) (Formerly numbered Indic 230.) Lecture, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.


236A-236B. Pali and Prakrits. (4-4) Preparation: knowledge of Sanskrit equivalent to course 110C. Coverage of basic Pali grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

243. Translation Workshop: Premodern Sanskrit, Pali, and/or Prakrit Texts. (2) (Formerly numbered Indic 243.) Seminar, two hours. Requisite: course 110C. Translation, grammatical analysis, and discussion of selections from premodern Sanskrit, Pali, or Prakrit texts. S/U grading.

Southeast Asian

Lower Division Courses

240A-240B. 40C. Introductory Hindi. (5-5) (Formerly numbered South and Southeast Asian Languages and Cultures 40A-40B-40C.) Lecture, two hours; discussion, three hours. Preparation: reading knowledge of Hindi/Urdu, training in reading and writing skills at elementary level, equivalent to completion of one year of Hindi. P/NP or letter grading.

41A-41B-41C. Intermediate Hindi. (5-5) (Formerly numbered South and Southeast Asian Languages and Cultures 41A-41B-41C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 40C. Course 41A is enforced requisite to 41B, which is enforced requisite to 41C. Requisite for Hindi grammar and vocabulary, for reference of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

60. Religion in Classical India: Introduction. (5) (Formerly numbered Indic 60.) Lecture, three hours; discussion, one hour. Introduction to religions of classical India — Vedic, Brahmanical, Hindu, Jain, and Buddhist — paying equal attention to change and continuity, with emphasis on chronological development, P/NP or letter grading.

Upper Division Courses

110A. Elementary Sanskrit. (4) (Formerly numbered Indic 110A.) Lecture, three hours. Introduction to script and grammar, with reading exercises and attention to significance of Sanskrit for the understanding of other Indian languages.

110B. Intermediate Sanskrit. (4) (Formerly numbered Indic 110B.) Lecture, three hours. Requisite: course 110A. Advanced aspects of grammar and reading of literature.

110C. Advanced Sanskrit. (4) (Formerly numbered Indic 110C.) Lecture, three hours. Requisite: course 110B. Reading of entire Bhagavadgita or comparable amount of other Sanskrit literature.

30. Religious Traditions in Southeast Asia. (4) (Formerly numbered South and Southeast Asian Languages and Cultures 30.) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textual traditions. In regions including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

50A-50B-50C. Introductory Vietnamese. (5-5-5) (Formerly numbered South and Southeast Asian Languages and Cultures 50A-50B-50C.) Lecture, two hours; discussion, three hours. Course 50A is enforced requisite to 50B, which is enforced requisite to 50C. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

Southeast Asian

Lower Division Courses
50D-50E-50F. Introductory Vietnamese for Heri-
tage Learners. (5-5-5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 50D-50E-50F.) Lecture, five hours. Course 50D or Viet-
namese placement test is enforced requisite to 50E; course 50E or Vietnamese placement test is enforced requisite to 50F. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese. Emphasis on instruction in the language. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and po-
 lite forms. P/NP or letter grading.

51A-51B-51C. Intermediate Vietnamese. (5-5-5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 51A-51B-51C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 50C. Course 51A is enforced requisite to 51B, which is enforced requisite to 51C. Reinforcement of basic Vietnamese grammar and coverage of more ad-
 vanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

60A-60B-60C. Introductory Thai. (5-5-5) (Formerly numbered South and Southeast Asian Languages and Cultures 60A-60B-60C.) Lecture, two hours; dis-
cussion, three hours. Course 60A is enforced requisite to 60B, which is enforced requisite to 60C. Cover-
age of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehen-
sion. P/NP or letter grading.

60R. Reading and Writing Thai Scripts. (5) (For-
merly numbered South and Southeast Asian Lan-
guages and Cultures 60R.) Lecture, five hours. Rec-
ommended preparation: speaking and listening skills in Thai and Thai placement test. Training in reading and writing at introductory level. Completion of course 60R is equivalent to completion of one year of col-
lege-level Thai. P/NP or letter grading.

61A-61B-61C. Intermediate Thai. (5-5-5) (Formerly numbered South and Southeast Asian Languages and Cultures 61A-61B-61C.) Lecture, two hours; dis-
cussion, three hours. Enforced requisite: course 60C. Course 61A is enforced requisite to 61B, which is en-
forced requisite to 61C. 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.

70A-70B-70C. Introductory Filipino/Tagalog. (5-5-
5) (Formerly numbered South and Southeast Asian Languages and Cultures 70A-70B-70C.) Lecture, two hours; discussion, three hours. Course 70A is en-
forced requisite to 70B, which is enforced requisite to 70C. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversa-
tion, and comprehension. P/NP or letter grading.

71A-71B-71C. Intermediate Filipino/Tagalog. (5-5-
5) (Formerly numbered South and Southeast Asian Languages and Cultures 71A-71B-71C.) Lecture, two hours; discussion, three hours. Enforced requisite: course 70C. Course 71A is enforced requisite to 71B, which is enforced requisite to 71C. 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.

80A-80B-80C. Introductory Indonesian. (5-5-5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 80A-80B-80C.) Lecture, two hours; discussion, three hours. Course 80A is en-
forced requisite to 80B, which is enforced requisite to 80C. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on spelling, listening, and speaking skills. P/NP or letter grading.

81A-81B-81C. Intermediate Indonesian. (5-5-5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 81A-81B-81C.) Lecture, five hours. Enforced requisite: course 80C. Course 81A is en-
forced requisite to 81B, which is enforced requisite to 81C. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in In-
donesian. P/NP or letter grading.

90. Modern Literatures in Southeast Asia. (4) (For-
merly numbered South and Southeast Asian Lan-
guages and Culture.) Lecture, three hours. Knowledge of Southeast Asian languages not re-
quired. Exploration of diversity of Southeast Asia in such areas as traditional culture, modernization, polit-
ic, and literature through modern literary texts. P/NP or letter grading.

Upper Division Courses

120. Field Methods in Asian Languages and Cul-
tures. (3) (Formerly numbered South and Southeast Asian Languages and Cultures 120.) Discussion, three hours. Recommended preparation: at least one year of the Asian language at the intermediate level. Exploration of methodologies to better understand lan-
guage and culture acquisition by working directly with a native speaker of an Asian language. 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.

130. Topics in Southeast Asian Literature. (4) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures M130.) Lecture, three hours. Requisite: one course from Comparative Literature 1A, 1B, 1C, 1D, 2AW, 2BW, 2CW, or English Compo-
sition 3 or 3H. Knowledge of Southeast Asian lan-
guages not required. Advanced exploration of Southeast Asia through in-depth reading of texts from the region. Topics include censorship, politics, language, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 135.) Lecture, three hours; dis-
cussion, one hour. Critical issues related to major reli-
gious traditions in Southeast Asia, with emphasis on reading and reflecting on recent scholarship regard-
ing complex interactions between religion, state, and society in contemporary Southeast Asia. P/NP or let-
ter grading.

152A-152B-152C. Advanced Vietnamese. (5-5-
5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 152A-152B-152C.) Lecture, five hours. Requisite: course 152A is requisite to 152B, which is requisite to 152C. Designed to strengthen and build on language skills previously ac-
quired 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. P/NP or letter grading.

155. Topics in Vietnamese Cinema and/or Litera-
ture. (4) (Formerly numbered South and Southeast Asian Languages and Cultures 155.) Lecture, three hours. Knowledge of Vietnamese not required. Criti-
cal 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.

156A. Vietnam: History and Civilization, 1858 to the Present. (4) (Formerly numbered South and Southeast Asian Languages and Cultures 156A.) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Viet-
namese society and culture from origins to the early 19th century, with emphasis on examination of ways in which interactions between indigenous and Chi-
inese/Southeast Asian political and cultural forces helped shape religion, literary, and social traditions. P/NP or letter grading.

156B. Vietnam: History and Civilization, 1858 to the Present. (4) (Formerly numbered South and Southeast Asian Languages and Cultures 156B.) Lecture, three hours; discussion, one hour. Recom-
mended preparation: at least one Asian history or civ-
ilization 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 extend-
ed political and military conflict. P/NP or letter grad-
ing.

157. Gender Issues in Southeast Asia. (4) (For-
merly numbered South and Southeast Asian Languages and Cultures 157.) Seminar, three hours. Crit-
eval examination of gender issues in one or more Southeast Asian countries as they connect to social histories and nationalities regionally, nationally, or globally. May be repeated for credit. P/NP or letter grading.

162A-162B-162C. Advanced Thai. (5-5-5) (For-
merly numbered South and Southeast Asian Languages and Cultures 162A-162B-162C.) Lecture, two hours; discussion, three hours. Requisite: course 161C. Course 162A is requisite to 162B, which is requisite to 162C. Reinforcement of basic grammar and vocabu-
 lary acquired at beginning and intermediate levels. Coverage of more advanced topics on various as-
psects of Thai society. Broadening of skills in conver-
sation and composition. Reading of selected texts and/or visual documents. Topics include literature, religion, folklore, cultural history, and society. P/NP or letter grading.

172A. Advanced Filipino/Tagalog: Reading and Writing. (4) Lecture, three hours. Enforced requisite: course 71C or Filipino/Tagalog placement test. De-
signed 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 lan-
guage: description, narration, exposition, and argu-
 mentation. How to analyze different elements of writ-
ing and reading of pieces from several genres of con-
temporary Filipino writing. P/NP or letter grading.

175. Advanced Filipino/Tagalog: Filipino Short Story. (4) Lecture, three hours. Enforced requisite: course 71C or Filipino/Tagalog placement test. Gen-
eral background knowledge on how Filipino writers view themselves and society, historically and diachro-
nically. Sample of short stories written in Filipino/Ta-
galog with some written in English for pur-
purposes of contrasting rhetoric, themes, and sensibili-
ties. P/NP or letter grading.

182A-182B-182C. Advanced Indonesian. (5-5-5) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 182A-182B-182C.) Lecture, five hours. Requisite: course 181C. Course 182A is requisite to 182B, which is requisite to 182C. 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.

197. Individual Studies in Southeast Asian. (4) (Formerly numbered South and Southeast Asian Lan-
guages and Cultures 197.) 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 in-
tensive study, with scheduled meetings to be ar-
ranged between faculty and student. As-
signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see academic coordina-
tor. P/NP or letter grading.
Related Courses

Art History
114A. Early Art of India
114C. Japanese Art
114D. Later Art of India
114E. Arts of Korea
114F. Arts of Southeast Asia

C115A. Advanced Indian Art
C115B. Advanced Chinese Art
C115C. Advanced Japanese Art
C115D. Art and Material Culture, Neolithic to 210 B.C.
C115E. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906
C115F. Art and Material Culture of Late Imperial China, 906 to 1911
C140A. History of Korean Painting
C140B. History of Korean Ceramics
C140C. History of Korean Buddhist Art
C140D. Selected Topics in Korean Art
C180C. Modern and Contemporary South Asian Art

C224A. History of Korean Painting
C224B. History of Korean Ceramics
C224C. History of Korean Buddhist Art
C224D. Selected Topics in Korean Art
243. Selected Topics in Korean Art
C257. Advanced Indian Art
C258. Advanced Chinese Art
C259. Advanced Japanese Art
C260A. Indian Art
C260B. Chinese Art
C260C. Japanese Art
C261A. Art and Material Culture, Neolithic to 210 B.C.
C261B. Art and Material Culture of Early Imperial China, 210 B.C. to A.D. 906
C261C. Art and Material Culture of Late Imperial China, 906 to 1911
M282A. Topics in Asian Archaeology
C280C. Modern and Contemporary South Asian Art

Education
253C. Seminar: Asian Education

English
95A. Introduction to Poetry
140A. Criticism: History and Theory
140B. Criticism: Special Topics
201A. Criticism and Interpretation from Classical Era to the Renaissance

Ethnomusicology
91B. Music of Bali
91D. Music of China
91F. Music of India
91G. Music of Japan
91H. Music of Korea
146. Folk Music of South Asia
147. Survey of Classical Music in India
C156A-156B. Music in China
157. History of Chinese Opera
158A-158B-158C. Studies in Chinese Instrumental Music
C159. Music on China’s Periphery
160. Survey of Music in Japan
161B. Music of Bali
161D. Music of China
161F. Music of India
161G. Music of Japan
161H. Music of Java
161J. Music of Korea
161M. Music of Thailand

Geography
165. South and Southeast Asia
166. Contemporary China
286. Geography of Contemporary China

History
9A. Introduction to Asian Civilizations: History of India
9C. Introduction to Asian Civilizations: History of Japan
9CH. Introduction to Asian Civilizations: History of Japan (Honors)
9E. Introduction to Asian Civilizations: Southeast Asian Crossroads
11A-11B. History of China
11AH-11BH. History of China (Honors)
97G. Introduction to Historical Practice: Variable Topics in East Asian History
97M. Introduction to Historical Practice: Variable Topics in Southeast Asian History
97N. Introduction to Historical Practice: Variable Topics in Indian History

169A-169B. Thought and Society in China
170A. Culture and Power in Late Imperial China
170B. Selected Topics in Chinese History from 1500 to 1900
M170C. History of Women in China, A.D. 1000 to the Present
170D. 20th-Century China
172A-172B-172C. Japanese History
173A. Japanese Popular Culture
M173B. Women in 20th-Century Japan
173C. Shinto, Buddhism, and Japanese Folk Religion
174A. Early History of India
174D. Classical Age of Indian History, A.D. 300 to 1000
174E. Bhakti Traditions in Indian History
175C. Special Topics in Contemporary Indian History
176A-176B. History of Southeast Asia
176C. Philippine History
176D. Premodern Vietnamese History
176E. Vietnam: Past and Present
177A. National Histories of Southeast Asia
177B. Comparative Histories of Southeast Asia
185B. Religions of South and Southeast Asia
191G. Undergraduate Variable Topics Seminars: East Asia
191M. Undergraduate Variable Topics Seminars: Southeast Asia
191N. Undergraduate Variable Topics Seminars: East Asia

191L. Undergraduate Variable Topics Seminars: Southeast Asia
200K. Advanced Historiography: India
200L. Advanced Historiography: China
200M. Advanced Historiography: Japan
200P. Advanced Historiography: History of Religions
200T. Advanced Historiography: Southeast Asia
201K. Topics in History: India
201L. Topics in History: China
201M. Topics in History: Japan
201P. Topics in History: History of Religions
201T. Topics in History: Southeast Asia
282A-282B. Seminars: Chinese History
285A-285B. Seminars: Japanese History
M286. Japan in Age of Empire
288A-288B. Seminars: South Asia
289A-289B. Seminars: Southeast Asia
293A-293B. Seminars: History of Religions

Law
278. Comparative Law: Japanese Law and Society

Linguistics
103. Introduction to General Phonetics
120A. Phonology I
120B. Syntax I
220. Linguistic Areas
225P. Linguistic Structures: Chinese
225H. Linguistic Structures: Japanese

Political Science
135. International Relations of China
136. International Relations of Japan
158. Southeast Asian Politics
159A-159B. Government and Politics of China
160. Government and Politics of Japan
242. Chinese and East Asian Politics
243. Japanese and Western Pacific Politics
248. South Asian Politics

Sociology
179. Comparative East Asian Societies
181. State and Society in China
276. Selected Topics in Sociology of East Asia

Astronomy

See Physics and Astronomy

ATMOSPHERIC AND OCEANIC SCIENCES
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Lawrence Lyons, Ph.D., Chair
J. David Neelin, Ph.D., Vice Chair

Professors
Kuo-Nan Liou, Ph.D.
Lawrence R. Lyons, Ph.D.
James C. McWilliams, Ph.D. (Louis B. Stichter Professor of Geophysics and Planetary Physics)
Carlos R. Mechoso, Ph.D.
J. David Neelin, Ph.D.
Richard M. Thorne, Ph.D.
Richard P. Turco, Ph.D.
Yongkang Xue, Ph.D.

Professors Emeriti
Akio Arakawa, D.Sc.
James G. Edinger, Ph.D.
Michael Ghil, Ph.D.
George L. Lincove, Ph.D.
John Y. Yenai, D.Sc.

Associate Professors
Robert G. Fovell, Ph.D.
Nicolas Gruber, Ph.D.
Suzanne E. Paulson, Ph.D.
Bjorn B. Stevens, Ph.D.

Assistant Professors
Alexander D. Hall, Ph.D.
Jochen P. Stutz, Ph.D.

Lecturer
Jeffrey K. Lew, Ph.D.

Adjunct Assistant Professor
Annmarie Eldering, Ph.D.
Scope and Objectives

The atmospheric and oceanic sciences present a wide variety of problems compelling scientific interest and increasing social concern. This is exemplified by efforts to improve air quality, depredations 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 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 represents 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, 4BL; Program in Computing 10A.

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/adm_tr.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, M105, 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, 135A, 136, Physics 131, 132; students preparing for graduate studies in upper atmosphere and space physics should take Mathematics 115A, 135A, Physics 110A, 110B, M122; students preparing for graduate studies in atmospheric dynamics and physics should take Atmospheric and Oceanic Sciences 101, CM120, C125, Mathematics 115A, 135A, 136, Physics 131, 132.

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 a coordinated program of 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 101, 102, 103, 104, C110, C115, CM120, C125, 130, M140, C145, C160, C165, C170, 180, CM185 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 three required or from Atmospheric and Oceanic Sciences 1, 2, 3, 190 (must be taken twice), Chemistry and Biochemistry 103, 110A, 110B, 113A, C113B, 114, Earth and Space Sciences 15, Ecology and Evolutionary Biology 109, C119, 122, 123, 147, 148, Mathematics 115A, 115B, 132, 135A, 135B, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132, Statistics 110A, 110B. Other relevant courses from related disciplines may be substituted with prior approval of the department.

Groups of courses relevant to specific subareas of atmospheric sciences include (1) atmospheric chemistry: Atmospheric and Oceanic Sciences 104, M140, Chemistry and Biochemistry 103, 110A, 110B, C113B, 114; (2) atmospheric physics: Atmospheric and Oceanic Sciences 101, 104, 102, C125, Physics 112, 131, 132; (4) atmospheric dynamics: Atmospheric and Oceanic Sciences 101, 102, C125, Physics 112, 131, 132; (4) atmospheric dynamics and mathematical modeling: Atmospheric and Oceanic Sciences 101, C125, 180, Mathematics 115A, 115B, 132, 135A, 135B, 136, 142, 146; (5) oceanography and biology: Atmospheric and Oceanic Sciences 101, 103, 104, Ecology and Evolutionary Biology 109, 123, 147, 148; (6) upper atmosphere: Atmospheric and Oceanic Sciences 101, CM120, C125, C170, Physics 110A, 110B, M122.

One course may be taken on a Passed/Not Passed basis; all other minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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 Atmospheric and Oceanic Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Atmospheric Sciences.

Atmospheric and Oceanic Sciences

Lower Division Courses

1. Climate Change: From Puzzles to Policy. (4) (Formerly numbered 6.) 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 nino. Importance of climate science and prediction to society, with emphasis on science's role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

2. Climate Change: From Puzzles to Policy — Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 1. Investigations and demonstrations supporting material in course 1, including greenhouse effect, atmosphere and ocean circulation, past, present, and future climates, and role of science in climate change politics. P/NP or letter grading.

2L. Air Pollution Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 2. Investigations and demonstrations supporting material in course 2, including box model simulation, dose responses, air parcel motion and pollution dispersion, daily and seasonal variation of smog pollutants, and smog transport. P/NP or letter grading.

3L. Introduction to Atmospheric Environment Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 3. Investigations and demonstrations supporting material in course 3, including causes and effects of seasons, remote sensing and satellite picture interpretation, atmospheric stability, and weather systems (fronts and cyclones). P/NP or letter grading.

5. Climates of Other Worlds. (4) Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and their satellites in solar system using information obtained during recent planetary exploration program. Elementary description of origin and evolution of atmospheres on planets. Climates on planets, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.

88. Lower Division Seminar. (4) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in a specific term. P/NP or letter grading.

Upper Division Courses


104. Fundamentals of Air and Water Pollution. (4) Lecture, three hours; discussion, one hour. Requisite: Chemistry 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. 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 present and past. Roles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Production of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes. Letter grading.


C115. Mesometeorology. (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, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and the dry line. Discussion on design of field project. Concurrently scheduled with course C229. P/NP or letter grading.


130. Circulation of Santa Monica Basin. (4) Lecture, four hours. Enforced prerequisite: course 103. Descriptive introduction to measurement program to describe large-scale geostrophic circulation in Santa Monica Basin, which has depths as large as 1,000 meters and extends 50 kilometers offshore from Los Angeles. Letter grading.

M140. Environmental Chemistry Laboratory. (4) (Same as Chemistry M140.) Lecture, two hours; laboratory, three hours. Requisite: Chemistry 20B. Laboratory experience for students who wish to pursue career in environmental science. Essential laboratory procedures to be performed in context of timely environmental issues involving smog formation, acid rain, and ozone depletion. Hands-on experience using scientific instruments and analytical techniques appropriate for environmental assessment. P/NP or letter grading.

C145. Microphysics of Clouds, Precipitation, and Aerosols. (4) Lecture, three hours; discussion, one hour. Requisites: Physics 1A, 1B, and 1C, or 6A and 6B. Theoretical foundation combined with application and observation data. Topics include cloud formation and structure; condensation processes; thermodynamic equilibrium; nucleation; aerosol processes — formation, diffusion, sedimentation, condensation; precipitation; and thunderstorms. Concurrently scheduled with course C203B. Letter grading.

C160. Remote Sensing. (4) Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy; methods based on scattering, absorption, and extinction; passive and active techniques; inversion methods; remote sensing of terrestrial meteorological parameters and trace constituents; remote sensing of surfaces and biosphere; remote sensing of planetary atmospheres. Concurrently scheduled with course C240B. P/NP or letter grading.


C170. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 33A, Physics 1C. Introduction to basic plasma physical processes occurring in the sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approach. Solar-planetary coupling processes, geomagnetic phenomena, aura. Concurrently scheduled with course C205A. Letter grading.

180. Numerical Methods in Atmospheric Sciences. (2 to 4) (Formerly numbered Mathematics 199.) Lecture, to be arranged. Limitation to senior departmental majors. Statistical framework for data analysis in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on applications and data, not theory, although some understanding of theory is needed. Concurrently scheduled with course CM213. P/NP or letter grading.

190. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior atmospheric sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Preparation to weather analysis, and weather discussion. Includes daily weather map discussions and visit to observing, radiosonde, and radar installations. Letter grading.

195. Senior Paper. (4) Limited to senior atmospheric sciences majors. Supervised through individual consultation with an appropriate faculty member, students write a research paper on a topic of their own choosing within their area of concentration in the major. May be used for writing honors thesis.

197. Individual Studies in Atmospheric and Oceanic Sciences. (2 to 4) (Formerly numbered Atmospheric Sciences 199.) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.

199. Directed Research in Atmospheric and Oceanic Sciences. (2) Tutorial, to be arranged. Limited to juniors/seniors and required for Mathematics/Atmospheric and Oceanic Sciences majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.
Graduate Courses


200B. Introduction to Dynamics of Earth System. (4) Lecture, three hours. Overview of general circulation of atmosphere and ocean; global energy balances; coupled ocean-atmosphere systems. Introduction to the sun, solar wind, magnetospheres, and ionospheres of the Earth. Letter grading.


201C. Introduction to Atmospheric Turbulence and Convection. (4) Lecture, three hours. Requisite: course C200A. Small-scale nonhydrostatic motions in the atmosphere. Introduction to turbulence and thermal convection. Planetary boundary layer, effects of moisture on atmospheric motions, theory of moist convection, cumulus convection.

M203A. Introduction to Atmospheric Chemistry. (4) Same as Civil Engineering M262A. Lecture, three hours. Requisite for undergraduates: Chemistry 20B. Principles of chemical kinetics, thermochemistry, spectroscopy, and photochemistry; chemical composition and history of Earth's atmosphere; bio-geochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere. Upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

C203B. Microphysics of Clouds, Precipitation, and Aerosols. (4) Lecture, three hours; discussion, one hour. Theoretical foundation combined with application and observation data. Topics include cloud formation and structure; condensation processes; thermodynamic equilibrium; nucleation; aerosol processes — formation, diffusion, sedimentation, condensation; precipitation; and thunderstorms. Concurrently scheduled with course C145. Letter grading.


C205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Introduction to basic plasma physical processes occurring in the sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approach. Solar-planetary couplings. Consequences, aurora. Concurrently scheduled with course C170. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Solar, interplanetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical background for studies in space physics. Contextual understanding and literacy in space physics terminology provided. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205C. Planetary Upper Atmospheres. (4) Lecture, three hours. Requisite: consent of instructor. 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.


C211. Planetary Wave Dynamics and Teleconnections in Atmosphere/Ocean. (4) Lecture, three hours. Requisite: course C210B. Dynamics of stationary and low-frequency waves in the atmosphere and ocean with applications to remote impacts of climate variability. Parameterizations of barotropic and baroclinic Rossby waves in spatially varying flow. Interactions with storm tracks and mean flow. Teleconnection patterns. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C212A. Numerical Methods in Geophysical Fluid Dynamics. (4) Lecture, three hours. Requisite or corequisite: course C201A. Basic numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanic flows. Finite-difference methods and truncation error. Linear and nonlinear computational stability. Computational modes and computational boundary conditions. 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.


C213. Statistical Methods for Physical Sciences. (4) Same as Statistics CM252. Lecture, three hours. Designed for graduate students in atmospheric sciences, chemistry, and geology students. Statistical framework for data analysis in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on applications and data, not theory, although some understanding of theory is needed. Concurrently scheduled with course CM185. 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.

C214. Theoretical Climatic Dynamics. (4) Lecture, three hours. Radiative transfer and energy-balance models (EBMs). Multiple equilibrium climates and their stability. Coupled EBMs of the atmosphere and oceans. Climatic history of our planet. Continuum mechanics of ice sheets and mantle. Oscillatory models of Quaternary glaciation. Circulating oceanic and atmospheric systems as collisional and magnetized (unmagnetized) plasmas: currents, drifts, and instabilities. Examples of upper atmosphere interaction with lower atmosphere and magnetosphere. S/U grading 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.

C215. Ocean Circulation. (4) Lecture, three hours. Requisites: courses C200A, C201A. Phenomena, theory, and modeling of ocean circulation with global to regional scales. Ocean circulation includes thermohaline and wind-driven currents. Examination of relationships between ocean circulation 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.

C216A. Tropical Motions with Moist Processes. (4) Lecture, three hours. Requisite: course 201C. Cumulus convection and the boundary layer in the tropics. Cloud clusters and mesoscale convection systems. Interaction of cumulus convection with large-scale environments. Tropical cyclones. Monsoon meteorology. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


220. Geophysical Turbulence. (4) Lecture, three hours. Requisites: courses C200A, C201A. Phenomena, theories, and models of turbulence in Earth's oceans and atmosphere—from fine structure to planetary scale motions. Regimes of turbulence include homogeneous flows in two and three dimensions, shear flows, convection, stably stratified flows, and geostrophic motions. Examination of relationships between turbulence and its transport effects on general circulation. 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. Requisites: courses C230A, C201A. Phenomena, theories, and models of turbulence in Earth's oceans and atmosphere—from fine structure to planetary scale motions. Regimes of turbulence include homogeneous flows in two and three dimensions, shear flows, convection, stably stratified flows, and geostrophic motions. Examination of relationships between turbulence and its transport effects on general circulation. 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.

M214B. Atmospheric Diffusion and Air Pollution. (4) (Same as Civil Engineering M226B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and air pollutant potential; meteorological aspects 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.

C227. Advanced Dynamic and Synoptic Meteorology. (6) Laboratory, six hours. Requisite: course 101. Weather map analysis, thermodynamic diagrams, satellite interpretation, severe weather forecasting, isentropic 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.

C228. Mesometeorology. (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, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, surface waves, and the dry line. Discussions on design of field project. Concurrently scheduled with course C115. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

229. Mesoscale Modeling. (4) Lecture, three hours. Requisites: courses 201C, C228. Numerical and analytical modeling of convective and mesoscale motions, from shallow heat sources to large complex systems. Model frameworks, assumptions, parameterizations, and solution techniques. Role of modeling efforts in understanding dynamic structure and behavior of systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of troposphere; physical chemistry of surfaces and solutions; precipitation chemistry and acid rain; atmospheric 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. Requisites: courses M203A, M230A. Equations of tracer transport and chemical kinetics modeling in three dimensions; numerical techniques; coupled simulations of gas-phase and aerosol microphysics and chemistry; computational versus observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

232. Chemical Transport Modeling. (4) Lecture, three hours. Requisites: courses M203A, M230A, M230B. Kinematics of homogeneous and shear flow turbulence. Surface and planetary boundary layers, including heat transfer and turbulent convection. Survey of field and laboratory observations and their interpretation by theory. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

234A. Methods of Radiative Transfer. (4) Lecture, three hours. Requisite: course C234A. Theory of radiative transfer in one dimension. Requisite: course M203A. Theory of radiative transfer in three dimensions; numerical methods for radiative fluxes and heating rates in various atmospheres, from shallow heat sources to large complex systems; role of modeling 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.


Upper Atmosphere and Space Physics

240A. Radiative Meteorology. (4) Lecture, three hours. Requisite: course C200A. Derivation of the radiative transfer equation in various media and application to radiometry and thermodynamics of the atmosphere. 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.

240B. Remote Sensing. (4) Lecture, three hours. Requisite: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy; methods of interpreting remote sensing data; passive and active techniques; inversion methods; remote sensing of terrestrial radiative properties; clouds; and atmospheric remote sensing. 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.

244A. Methods of Radiative Transfer. (Formerly numbered 244.) Lecture, three hours. Requisite: course C200C. Presentation of computational methods for solar and thermal infrared radiative fluxes and heating rates in clear, aerosol, and cloudy atmospheres for climate studies. Topics include line-by-line and correlated-k distribution methods for treating gaseous absorption, simplified methods for radiative transfer in Rayleigh and Lorenz/Mie atmospheres, and global radiative equilibrium. Use of user-friendly computer code required to perform calculations of radiative fluxes and heating rates in various atmospheres, and techniques for climate applications. S/U or letter grading.


250A. Solar System Microscopic Particle Processes. (4) Lecture, three hours. Requisite: course C205A. Derivation of MHD equations with two fluid aspects, generalized Ohm's law, small amplitude waves, discontinuities, shock waves, and instabilities. Applications to statics and dynamics of solar wind and planetary magnetospheres and to solar wind/magnetosphere/ ionosphere coupling. S/U (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 Particle Processes. (4) Lecture, three hours. Requisite: course C205A. Adiabatic charged particle dynamics; incoherent radiation processes; collective effects in a plasma; propagation characteristics of electrostatic and electromagnetic waves; introduction to resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.
256. Ionospheric Electrodynamics. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric control of magnetospheric phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

257. Radiation Belt Plasma Physics. (4) Lecture, three hours. Requisite: course 250B. Turbulent plasma instabilities and their relation to satellite observations and magnetospheric structure. Processes responsible for source, loss, and transport of energetic radiation belt particles. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


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 and Space Sciences M270A-M270B-M270C and Geography M270A-M270B-M270C.) Seminar, two hours. Archaeological, geochemical, micropaleontological, and stratigraphic evidence for climate change throughout geological past. Rheology and dynamics of climatic subsystems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle, Climate of other planets. Modeling, simulation, and prediction of modern climate on monthly, seasonal, and interannual time 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.

281. Special Topics in Dynamic Meteorology. (2 to 4) Individual meetings with instructor to be arranged. Content varies from year to year. S/U grading.

283. Special Topics in Atmospheric Physics. (2 to 4) 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) 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) Individual meetings with instructor to be arranged. Selected topics of current research interest in solar wind, magnetospheric, or ionospheric physics.

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 the Atmosphere.

296B. Synoptic and Mesoscale Meteorology.

296C. Numerical Mesoscale Modeling.

296D. Climate Dynamics.

296E. Numerical Modeling of the 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.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice to be advised by a faculty member engaged in active supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.


Related Courses

Astronomy (Physics and Astronomy)

81. Astrophysics I: Stars and Nebulae

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology

180. Astrophysics Laboratory

Biomathematics

202. Fourier Analysis in Biology

Chemical Engineering

102. Chemical Engineering Thermodynamics

108A. Process Economics and Analysis

C240. Fundamentals of Aerosol Technology

Chemistry and Biochemistry

103. Environmental Chemistry

110A. Physical Chemistry: Chemical Thermodynamics

110B. Physical Chemistry: Introduction to Statistical Mechanics and Kinetics

C123A-C123B. Classical and Statistical Thermodynamics

215D. Molecular Spectra, Diffraction, and Structure

M223C. Nonequilibrium Statistical Mechanics and Molecular Biophysics

225. Chemical Kinetics

Civil and Environmental Engineering

163. Introduction to Atmospheric Chemistry and Air Pollution

Earth and Space Sciences

M140. Introduction to Fluid Dynamics

154. Solar Terrestrial Physics

202. Continuum Mechanics

M204. Time-Series Analysis

261. Topics in Magnetospheric Plasma Physics

265. Instrumentation, Data Processing, and Data Analysis in Space Physics

Electrical Engineering

103. Applied Numerical Computing

161. Electromagnetic Waves

162A. Wireless Communication Links and Antennas

M185. Introduction to Plasma Electronics

Mathematics

131A-131B. Analysis

132. Complex Analysis for Applications

135A-135B. Ordinary Differential Equations

136. Partial Differential Equations

142. Mathematical Modeling

146. Methods of Applied Mathematics

151A-151B. Applied Numerical Methods

170A, 170B. Probability Theory

171. Stochastic Processes

250C. Advanced Topics in Ordinary Differential Equations

265A-265B. Real Analysis for Applications

266A. Applied Ordinary Differential Equations

266B-266C. Applied Partial Differential Equations

269B-269C. Advanced Numerical Analysis

271A. Tensor Analysis

271B. Analytical Mechanics

271C. Introduction to Relativity

274A. Asymptotic Methods

274B. Perturbation Methods

Mechanical and Aerospace Engineering

103. Elementary Fluid Mechanics

131A. Intermediate Heat Transfer

150A. Intermediate Fluid Mechanics

150B. Aerodynamics

182A, 182B. Mathematics of Engineering

182C. Numerical Methods for Engineering Applications

250A. Foundations of Fluid Dynamics

250B. Viscous and Turbulent Flows

250C. Compressible Flows

252A. Stability of Fluid Motion

252B. Turbulence

259A. Seminar: Advanced Topics in Fluid Mechanics

Physics (Physics and Astronomy)

108. Optical Physics

110A, 110B. Electricity and Magnetism

112. Thermodynamics

115A, 115B. Quantum Mechanics

M122. Introduction to Plasma Electronics

131, 132. Mathematical Methods of Physics

210A, 210B. Electromagnetic Theory

215A. Statistical Physics

215B. Nonequilibrium Statistical Mechanics

222A-222B-222C. Plasma Physics

231A, 231B, 231C. Methods of Mathematical Physics

Statistics

100A. Introduction to Probability Theory

100B. Introduction to Mathematical Statistics

200B. Applied Probability

200C. Large Sample Theory, Including Resampling
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Timothy J. Deming, Ph.D.
Warren S. Grundfest, M.D., FACS
Hooshang Kangarloo, M.D.
Carlo D. Montemagno, Ph.D. (Roy and Carol Doumani Professor of Biomedical Engineering)

Assistant Professors
James Dunn, M.D., Ph.D.
Daniel T. Kamei, Ph.D.
Jacob J. Schmidt, Ph.D.
Benjamin M. Wu, D.D.S., Ph.D.

Adjunct Assistant Professor
Alex Bui, Ph.D.

Scope and Objectives
Faculty members in the Department of Bioengineering believe that the interface between biology and the physical sciences represents an exciting area for science in the twenty-first century. Bioengineering is establishing itself as an independent field and engineering discipline, resulting in the formation of many new bioengineering departments and the redefinition of established programs. Faculty members have embraced this unique opportunity by developing an innovative curriculum, creating state-of-the-art facilities, and performing cutting-edge research.

Instead of treating bioengineering as an application of traditional engineering, it is taught as an applied science discipline in its own right. The bioengineering program is a structured compilation 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. The program provides a unique engineering educational experience that responds to the growing needs and demands of engineering students.

Undergraduate Program Objectives
The goal of the bioengineering curriculum is to provide students with the fundamental scientific knowledge and engineering tools necessary for graduate study in engineering or scientific disciplines, continued education in health professional schools, or employment in industry. There are three main objectives: (1) to provide students with rigorous training in engineering and fundamental sciences, (2) to provide knowledge and experience in state-of-the-art research in bioengineering, and (3) to provide problem-solving and team-building skills to succeed in a career in bioengineering.

Undergraduate Study

Bioengineering B.S.

The Major
Course requirements are as follows (198 minimum units required):

1. Bioengineering 10, 100, 110, 120, 165, 176, 180, 180L, 181, 181L, 182A, 182B, 182C; Biomedical Engineering M186B; Chemical Engineering 101A, M105A; Chemistry and Biochemistry 110A, 153A, 156; Electrical Engineering 102 or Mathematics 115A; Molecular, Cell, and Developmental Biology M140

2. Life Sciences 2 (satisfies HSSEAS GE life science requirement), 3, 4

3. Two elective courses from Biomedical Engineering C101, CM102, CM103, CM145, M150, M150L, C170, C171, C180, C181, C185, CM186L

4. Bioengineering 1, 1L, 2, 2L, 3, 3L (Physics 1A, 1B, 1C or Electrical Engineering 1, 4AL, and 4BL may be substituted for courses 1L, 2L, 2, and 3); Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, 14D (20A, 20B, 20L, 30A, 30AL, and 30B may be substituted for 14 series); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Mechanical and Aerospace Engineering 20

5. HSSEAS general education (GE) requirements. See http://www.seasosa.ucla.edu/ge.html for details

Bioengineering

Lower Division Courses
1. Physics for Bioengineers I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Corequisite: Mathematics 31A. Introduction to physics and biophysics. Basic topics in physics from biological perspective and discussion of physical processes associated with biological phenomena. Topics include statics, dynamics, work and energy, oscillations, hydromechanics, biological motion in fluids, waves, sound, and physics of hearing. Letter grading.

1L. Physics for Bioengineers Laboratory I. (3) (Formerly numbered 4L.) Lecture, one hour; laboratory, four hours; outside study, four hours. Corequisite: course 1 or Physics 1A. Introductory experimental physics laboratory course that explores basic physical concepts from biological perspective. Topics include basic measurement and analysis, static forces and torques, dynamic motion with damping, simple harmonic motion, fluid flow through free and constrained geometries, scale-dependent motion in fluids and Reynolds numbers, surface tension. Letter grading.

2. Physics for Bioengineers II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 1 or Physics 1A, Mathematics 31A. Corequisite: Mathematics 31B. Introduction to physics and biophysics. Basic topics in physics from biological perspective and discussion of physical processes associated with biological phenomena. Topics include kinetic theory of gases, statistical mechanics, diffusion, thermodynamics, physics of biopolymers and biomembranes, electric and magnetic fields, electricity in aqueous media. Letter grading.

2L. Physics for Bioengineers Laboratory II. (3) (Formerly numbered 5L.) Lecture, one hour; laboratory, four hours; outside study, four hours. Requisite: course 1 or Physics 1B. Continuation of course 1L. Second introductory experimental physics laboratory course that explores basic physical concepts from biological perspective. Topics include behavior of ideal gases, thermal transport, electric fields, electricity in aqueous media, simple electric circuits of resistors, inductors, and capacitors, electric circuit analogs in biological systems, optics of microscope, physics of light gun eration and absorption, fluorescence, laser in biology. Letter grading.

3. Physics for Bioengineers III. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 2 or Physics 1B, Mathematics 31B. Corequisite: Mathematics 32A. Introduction to physics and biophysics. Basic topics in physics from biological perspective and discussion of physical processes associated with biological phenomena. Topics include DC and AC circuits, ion channels, biological circuits, Maxwell equations, electromagnetic waves, interference and diffraction, geometric optics, optics of eye and compound microscope, quantum physics, NMR and MRI, fluorescence. Letter grading.

3L. Physics for Bioengineers Laboratory III. (3) Lecture, one hour; laboratory, four hours; outside study, four hours. Requisite: course 3 or Physics 1C. Continuation of course 2L. Third introductory experimental physics laboratory course that explores basic physical concepts from biological perspective. Topics include resistors, capacitors, and inductors, passive DC and AC circuits, active circuits, electric circuit analogs in biological systems, optics of lens and eye, compound microscope, physics of light generation and absorption, fluorescence. Letter grading.

10. Introduction to Bioengineering. (2) Lecture, two hours; outside study, four hours. Preparation: high school biology, chemistry, mathematics, physics. Introduction to scientific and technological bases for established and emerging subfields of bioengineering, including biosensors, bioinstrumentation, and bioinformation processing, biomechanics, biomaterials, tissue engineering, biotechnology, biological imaging, biomedical optics and lasers, neuroengineering, and biomolecular machines. Letter grading.

Upper Division Courses
100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 or Electrical Engineering 1 or Physics 1C (may be taken concurrently), Chemistry 14C or 30A, Mathematics 32B (may be taken concurrently). Fundamental basis for analysis and design of biological and biomedical devices and systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.
110. Biotransport and Bioreaction Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 or Electrical Engineering 1 or Physics 1C, Chemical Engineering 101A, M105A (or Mechanical and Aerospace Engineering M105A), Chemistry 153A, Life Sciences 3, Mathematics 32B, Introduction to analysis of fluid flow, heat transfer, mass transfer, binding proteins, 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 pharmacokineti- cokinetic analysis. Letter grading.

120. Biomedical Transducers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 or Electrical Engineering 1 or Physics 1C, Chemistry 14C or 30A, Mathematics 32B. Principles of transduction, design characteristics for different measurements, reliability and performance characteristics, and data processing and re- cording. Emphasis on silicon-based microfabricated and nanofabricated sensors. Novel materials, bio- compatibility, biostability. Safety of electronic interfac- es. Actuator design and interfacing control. Letter grading.

155. Bioethics and Regulatory Policies in Bioengineering. (2) Lecture, two hours; outside study, four hours. Requisite: course 180. Increasing pace of bio- technology development requires intensive prepara- tion for young scientists (i.e., graduate students, postdoctoral research fellows, and junior faculty) on issues in bioethics and regulatory policy. Examination of role of scientists in participating in, supporting, or opposing establishment of regulatory frameworks, rela- tionship between scientists and socioeconomic movements by general public and individuals, and discussion of role of scientists in public arena, aca- demic institutions, media, and industry. May be ap- propriate for students who already have some knowl- edge and/or experience in molecular biology, genet- ics, or biotechnology.

176. Principles of Biocompatibility. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 3 or Electrical Engineering 1 or Physics 1C, Chemistry 153A, Mathematics 33B: Biocompatibility at systemic, tissue, cellular, and molecular levels. Biomechanical compatibility, stress/ strain constitutive equations, cellular and molecular response to mechanical signals, biochemical and cel- lular compatibility, immune response. Letter grading.

180. System Integration in Biology, Engineering, and Medicine I. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: courses 3L, 100, 110, 120, Life Sciences 3, Corequi- site: course 180L. Part I of two-part series. Molecular basis of normal physiology and pathophysiology; and engineering design principles of cardiovascular and pulmonary systems. Fundamental engineering prin- ciples of selected medical therapeutic devices. Letter grading.

180L. System Integration in Biology, Engineering, and Medicine I Laboratory. (3) Lecture, one hour; laboratory, four hours; clinical visits, three hours; out- side study, one hour. Corequisite: course 180. Hands-on experimentation and clinical applications of select- ed medical therapeutic devices associated with car- diovascular and pulmonary disorders. Letter grading.

181. System Integration in Biology, Engineering, and Medicine II. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisite: course 180L. Corequisite: course 181L. Part II of two- part series. Molecular basis of normal physiology and pathophysiology of selected organ systems; engineering design principles of digestive and urinary systems. Fundamental engineering principles of se- lected medical therapeutic devices. Letter grading.

181L. System Integration in Biology, Engineering, and Medicine II Laboratory. (3) Lecture, one hour; laboratory, four hours; clinical visits, three hours; out- side study, one hour. Corequisite: course 181. Hands- on experimentation and clinical applications of molec- ular basis of normal physiology and pathophysiology of selected organ systems; engineering design princi- ples of digestive and urinary systems. Letter grading.

182A-182B-182C. Bioengineering Capstone De- sign I, II, III. (2-2-2) Lectures, design seminars, and discussions with faculty advisory panel. Working in teams, students compete to develop innovative bioengineering solutions to meet specific set of design criteria (design and make strongest self-assem- bled biorobots or most stable UCLA logo or most se- lective and efficient biomarker sensors, etc.). Letter grading. 182A. Lecture, two hours; outside study, four hours. Requisites: courses 3L, 120. Development, writing, and oral defense of student design proposals.

182B. Lecture, two hours; laboratory, three hours; outside study, one hour. Requisite: course 182A. Ex- ploration of different experimental and computational methods. Ordering of specific materials and software that are relevant to student projects. 182C. Lecture, two hours; laboratory, three hours; outside study, one hour. Requisite: course 182B. Construction of student designs, project updates, presentation of final projects in written and oral format, and team competi- tion.

188. Special Courses in Bioengineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in bioengineering for un- dergraduate students that are taught on experimental or temporary basis, such as courses taught by resi- dent and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Bioengineering. (4) Seminar, three hours. Limited to bioengineering undergraduate students who are part of research group. Study and analysis of current topics in bioen- gineering. Discussion of current research literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. Letter grading.

199. Directed Research in Bioengineering. (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 approval of school. Letter grading.

BIological CHEMISTRY

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Kelsey C. Martin, Ph.D.

Lecturer
Felice D. Kurtzman, M.P.H.

Academic Coordinator
Eryn Ujita 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 cellu- lar, 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 neces- sary background and approach to encourage their continuing growth in these rapidly chang- ing areas of science.

Interaction with other graduate programs pro- vides access to scientists in a variety of related disciplines. Through its primary affiliation with the David Geffen School of Medicine, the de- partment is also involved in the basic educa- tion of students who will be physicians, den- tists, and other health professionals. Many of these students become involved in laboratory research in the department. In part because of this breadth of experience students find ca- reers in many aspects of basic and applied sci- entific research and education. The depart-
ment 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://www.gdnet.ucla.edu. 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. (5) Same as Molecular, Cell, and Developmental Biology M140.) Lecture, four hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L, Life Sciences 3, 4. Not open for credit to students with credit for Molecular, Cell, and Developmental Biology 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-adhesion. Letter grading.


CM178. Molecular Genetics. (4) (Same as Human Genetics CM178, Microbiology CM178, and Molecular, Cell, and Developmental Biology CM178.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course CM153G or Chemistry CM153G. Molecular genetics of four systems: bacteria, yeast, Drosophila, and mouse/humans. Concurrently scheduled with course CM248. Letter grading.

191. Topics in Contemporary Biology. (2) (Formerly numbered 197.) Seminar, two hours. Designed for undergraduate fellows in Howard Hughes Undergraduate Research Program. Presentation of weekly seminars on research literature in fields of biochemistry and molecular biology. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Biological Chemistry. (2) (Formerly numbered 195.) Seminar, two hours. Enrollment restricted to graduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. P/NP grading.

199. Directed Individual Research Studies in Biological Chemistry, (2 to 8) Laboratory, four to 20 hours. Preparation: submission of written research proposal and consultation with instructor. Limited to juniors/seniors. Individual research projects carried out under direction of a faculty member. P/NP or letter grading.

Graduate Courses
201A-201B. Biological Chemistry. (S-S) 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 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. Experimental 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) Students attend apprenticeships in laboratories of one or more departmental faculty members and engage in a research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates an informed decision on their part in selection of thesis/research advisor. S/U grading.

M223. Membrane Molecular Biology. (4) (Same as Physiology M223.) Lecture, two hours; discussion, two hours. Requisite: course CM253. Advanced course in molecular aspects of membrane physiology and biochemistry covering lipids and chemical composition of biological membranes; membrane biogenesis; targeting of proteins to membranes; pumps, carriers, and channels; receptors and transmembrane signaling. S/U or letter grading.

M234. Genetic Control of Development. (4) (Same as Molecular, Cell, and Developmental Biology M234.) Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

M237. Molecular and Cellular Foundations of Disease. (4) (Same as Pathology M237.) Lecture, two hours; discussion, two hours. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Discussion of key issues in disease processes, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. S/U or letter grading.


251A-251B-251C. Seminars: Transcriptional Regulation. (2-2-2) Advanced courses on mechanics of gene transcription in both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.

CM253. Macromolecular Structure. (4) (Same as Chemistry CM253 and Human Genetics CM253.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Electrons, thermodynamics, and biophysics of membranes and experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level.

M263. Metabolism and Its Regulation. (4) (Same as Chemistry M263.) Four hours. Requisites: courses 201A and 201B, or Chemistry 153B, 153C, or 156, and 110A. Thermodynamic and kinetic aspects of metabolism; regulatory properties of enzymes; metabolic regulation of comparative aspects of metabolism in relation to physiological function.

M266A-M266B-M266C. Seminars: Molecular Embryology. (2-2-2) (Same as Molecular, Cell, and Developmental Biology M266A, M266B, M266C.) Advanced course in developmental genetics and biochemistry, with emphasis on early development. Intended mostly for students actively working or highly interested in embryology. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel are chosen by an associate, assistant, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

596. Directed Individual Study and Research. (2 to 12) Hours to be arranged. S/U grading.

597. Preparation for Examinations. (2 to 4) Individual study for Ph.D. qualifying examinations or M.S. comprehensive examination. S/U grading.
### Biology

See Ecology and Evolutionary Biology

### Biomathematics

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Marc A. Suchard, Ph.D.

Eli Engel, M.D., Ph.D., Chair

Robert M. Elashoff, Ph.D., Vice Chair

Professors

Abdolnem A. Afifi, Ph.D.

Sally M. Blower, Ph.D., in residence

Robert M. Elashoff, Ph.D.

Henry S.C. Huang, D.Sc.

Elliot M. Landaw, M.D., Ph.D.

Kenneth L. Lange, Ph.D. (Maxine and Eugene Rosenfield Endowed Professor of Computational Genetics)

Carol M. Newton, M.D., Ph.D.

Michael E. Phelps, Ph.D. (Norton Simon Professor of Biophysics)

Professors Emeriti

Elliot J. Dixon, Ph.D.

Robert I. Jennrich, Ph.D.

Associate Professor

Janet S. Sinheimer, Ph.D.

Assistant Professor

Thomas Chou, Ph.D.

Lecturer

Jeffrey Gornbein, Dr. P.H.

Adjunct Professor

Sanjiv Gambhir, M.D., Ph.D.

Adjunct Associate Professor

Eli Engel, M.D., Ph.D.

Adjunct Assistant Professor

Marc A. Suchard, Ph.D.

Scope and Objectives

As biology advances rapidly in quantitative research methods, both the need for and possibility of closely associated theoretical research increases. On numerous medical and medical science frontiers — such as genetics, molecular biology, oncology, pharmacology, neurosciences, and physiology — biomathematics is contributing both in its basic research and the development of specialized computer software to support investigation and health care. UCLA has one of the few departments in this relatively new, rapidly evolving field.

The Department of Biomathematics welcomes both undergraduate and graduate students in other majors to its courses in biomedical computing, modeling, and statistics. Premedical majors with mathematical/computer interests can receive early guidance toward an M.D./Ph.D. program in Biomathematics. The department is responsible for statistical and biomathematical training in the medical curriculum.

The department's orientation is away from abstract modeling and toward theoretical research vital to the advancement of current biomedical research frontiers. The doctoral program reflects this in requirements for advanced training in a biomedical research specialty and for the mathematical and computing skills required to contend realistically with complex phenomena encountered in biology and medicine. The art of biomathematical research is developed individually from the first year on. The master's program adapts to the various needs of researchers desiring supplemental biomathematical training, people preparing to provide methodological support to researchers in biology or medicine, or students pursuing a stepwise approach to graduate training in biomathematics.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Biomathematics offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomathematics and the Master of Science (M.S.) degree in Clinical Research.

Biomathematics

Upper Division Courses

106. Introduction to Cellular Modeling. (4) Lecture, four hours; computer laboratory, two hours. Preparation: some computer programming. Required: Mathematics 32A. Designed for upper division science majors and biomedical graduate students. Introduction to modeling cells and cell systems, including intracellular biochemical networks, applications to cancer research. How to develop one's own computer models using IMSL mathematics subroutines.

108. Introduction to Modeling in Neurobiology. (4) Lecture, four hours; computer laboratory, two hours. Preparation: some computer programming. Required: Mathematics 32A. Designed for upper division science majors and biomedical graduate students. Survey of wide variety of topics in neurobiological modeling, current neuronal modeling systems. Development of skills to formulate and program one's own studies using IMSL mathematics subroutines. P/NP or letter grading.


110. Elements of Biomathematics. (4) Lecture, three hours; laboratory, three hours. Preparation: calculus. Analysis of deterministic models. Conditions under which deterministic and probabilistic descriptions of biological phenomena are appropriate. Both approaches are applied to selected examples in physiology and biology.

160. Introductory Biomathematics for Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Second course focuses on statistical concepts and critiques the literature, with emphasis on clinical research. Output from statistical computer packages discussed in class, but students do not use the computer themselves. Topics include descriptive statistics, t-tests, confidence intervals, regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination, article interpretation.

170A. Computer-Based Introductory Biomathematics for Medical and Biological Experimenters. (4) Lecture, four hours; discussion, 90 minutes. Intensive elementary statistics course emphasizing design of experiments and analysis of data using statistical packages. Statistical topics similar to course 160 — descriptive statistics, t-tests, confidence intervals, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination — but students also learn how to use the computer and run statistical software packages. Practical aspects of data collection and cleaning.

170B. Statistical and Mathematical Modeling in Medical and Biological Research. (4) Lecture, four hours; discussion, 90 minutes. Intensive elementary statistics course emphasizing design of experiments and analysis of data using statistical packages. Statistical topics similar to course 160 — descriptive statistics, t-tests, confidence intervals, linear regression and correlation, analysis of variance, nonparametric statistics, basic experimental design, sample size determination — but students also learn how to use the computer and run statistical software packages. Practical aspects of data collection and cleaning.

190HA-190HB. Honors Research in Biomathematics. (4-4) Limited to juniors/seniors. Individual research in some aspect of biomathematics designed to acquaint students in depth with mathematical models and computer applications in biology. Must be taken for at least two terms and for a total of at least 8 units. Thesis required.

199, Special Studies in Biomathematics. (2 to 8) Limited to juniors/seniors. Special studies in biomathematics, including either reading assignments or laboratory work or both, designed for proper training of students.

Graduate Courses


201. Deterministic Models in Biology. (4) 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.
208B. Modeling in Neurobiology for Biologists. (4) Lecture, four hours; laboratory, two hours. Prepa-
ration: lower division calculus, some elementary pro-
gramming experience. Introduction to neuronal mod-
eling, including how to formulate models and study
them with existing computer software (e.g., NODUS)
or one’s own simple programs that use IMSL subrou-
tines. Survey of current leading research areas. S/U
or letter grading.

CM208C. Introduction to Neural Networks: Model-
ing and Applications. (4) (Same as Psychiatry
M209.) Lecture, three hours. Preparation: calculus.
Introduction to theory of neural networks and their ap-
plications. Survey of current neural-network models of
cognitive functions. Concurrently scheduled with
course C108C. S/U or letter grading.

209. Modeling Infectious Diseases. (4) Lecture,
three hours; discussion, one hour. Preparation: calcu-
lus. Recommended: experience with ordinary differen-
tial equations, linear algebra, and computer pro-
grammimg. How mathematical models can be used to
design vaccination and treatment strategies for con-
trolling and eradicating infectious diseases. Integra-
tion of empirical studies with theoretical models in lec-
tures.

210. Optimization Methods in Biology. (4) Lecture,
four hours. Preparation: undergraduate mathematical
analysis and linear algebra; familiarity with program-
ming language such as Fortran or C. Modern compu-
tational biology relies heavily on finite-dimensional
optimization. Survey of theory and numerical meth-
ods for discrete and continuous optimization, with ap-
plications from genetics, medical imaging, pharmaco-
kinetics, and statistics. S/U or letter grading.

211. Tissue and Cell Dynamics. (4) Lecture,
three hours; discussion, one hour. Preparation: knowledge
of differential equations to level of course 201, some
mathematical modeling, computer programming. In-
depth mathematical modeling of problems in tissue and
cell dynamics to level of research literature. Ana-
lytical and numerical techniques for solving partial dif-
erential equations. S/U or letter grading.

220. Kinetic and Steady State Models in Pharma-
cology and Physiology. (4) Recommended prepa-
ration: knowledge of linear algebra, differential equa-
tions, statistics. Designed for biologists and theoret-
icians. Modeling and data analysis in pharmacokinet-
ces, enzyme kinetics, and endocrinology. Topics in-
clude population genetics, genetic epidemiology,
gene mapping, design of genetics experiments, DNA
sequence analysis, and molecular phylogeny. S/U
or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M272 and Human Genetics M207A.)
Lecture, three hours; discussion, one hour. Requi-
sites: Math 131A, Statistics 100B. Mathematical models in statistical genetics. Topics in-
clude population genetics, genetic epidemiology,
gene mapping, design of genetics experiments, DNA
sequence analysis, and molecular phylogeny. S/U
or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biostatistics M237 and Human Genetics M207B.)
Lecture, three hours; laboratory, one hour. Requi-
sites: Biostatistics 110A, 110B. Methods of computer-
oriented genetic analysis. Topics may include segre-
gation analysis, parametric and nonparametric link-
age analysis, quantitative methods, and phylogeneti-
cs. Laboratory for hands-on computer analysis of ge-
etic 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 Mathemati-
cians. (4) Lecture, four hours; laboratory, two hours.
Preparation: introductory ordinary partial differential
equations, programming experience. Introduction to
electrochemical bases for nerve function and mathe-
atical and computational methods for studying this,
appropriate for physicists, engineers, and mathematici-
s. Survey of current leading research areas and software
systems. S/U or letter grading.

M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; discussion,
one hour; laboratory, one hour. Requisites: Biostatis-
tics 100B. Bayesian approach to statistical inference, with emphasis on bio-
medical applications and concepts rather than mathe-
tatical theory. Topics include large sample Bayes
inference from likelihoods, noninformative and conju-
gate priors, empirical Bayes, Bayesian approaches to
linear and nonlinear regression, model selection,
Bayesian hypothesis testing, and numerical methods.
S/U or letter grading.

(Same as Physics M243L.) Seminar, four hours. De-
signated for graduate students. Basic paradigms of
condensed matter physics and applications to bio-
physical modeling. Letter grading.

M260A-M260B. Methodology in Clinical Research
I, II. (4-4) (Same as Medicine M260A-M260B.) Lec-
ture, four hours. Recommended preparation: M.D.,
Ph.D., or dental degree. Recommended: experience
with ordinary differential equations, linear algebra,
and computer programming. How mathematical models can be used to
design vaccination and treatment strategies for con-
trolling and eradicating infectious diseases. Integra-
tion of empirical studies with theoretical models in lec-
tures.

210. Optimization Methods in Biology. (4) Lecture,
four hours. Preparation: undergraduate mathematical
analysis and linear algebra; familiarity with program-
ning language such as Fortran or C. Modern compu-
tational biology relies heavily on finite-dimensional
optimization. Survey of theory and numerical meth-
ods for discrete and continuous optimization, with ap-
plications from genetics, medical imaging, pharmaco-
kinetics, and statistics. S/U or letter grading.

211. Tissue and Cell Dynamics. (4) Lecture,
three hours; discussion, one hour. Preparation: knowledge
of differential equations to level of course 201, some
mathematical modeling, computer programming. In-
depth mathematical modeling of problems in tissue and
cell dynamics to level of research literature. Ana-
lytical and numerical techniques for solving partial dif-
erential equations. S/U or letter grading.

220. Kinetic and Steady State Models in Pharma-
cology and Physiology. (4) Recommended prepa-
ration: knowledge of linear algebra, differential equa-
tions, statistics. Designed for biologists and theoret-
icians. Modeling and data analysis in pharmacokinet-
ces, enzyme kinetics, and endocrinology. Topics in-
clude population genetics, genetic epidemiology,
gene mapping, design of genetics experiments, DNA
sequence analysis, and molecular phylogeny. S/U
or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M272 and Human Genetics M207A.)
Lecture, three hours; discussion, one hour. Requi-
sites: Math 131A, Statistics 100B. Mathematical models in statistical genetics. Topics in-
clude population genetics, genetic epidemiology,
gene mapping, design of genetics experiments, DNA
sequence analysis, and molecular phylogeny. S/U
or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biostatistics M237 and Human Genetics M207B.)
Lecture, three hours; laboratory, one hour. Requi-
sites: Biostatistics 110A, 110B. Methods of computer-
oriented genetic analysis. Topics may include segre-
gation analysis, parametric and nonparametric link-
age analysis, quantitative methods, and phylogeneti-
cs. Laboratory for hands-on computer analysis of ge-
etic 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 Mathemati-
cians. (4) Lecture, four hours; laboratory, two hours.
Preparation: introductory ordinary partial differential
equations, programming experience. Introduction to
electrochemical bases for nerve function and mathe-
ematical and computational methods for studying this,
appropriate for physicists, engineers, and mathemati-
s. Survey of current leading research areas and software
systems. S/U or letter grading.
Biomathematics. (2) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Statistics 100A. Training in probability and statistics for students interested in pursuing research in computational biology, genomics, and bioinformatics. Letter grading.

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 molecules; behavior of such a system is stochastic. Mathematical descriptions of biochemical reactions with and without energy dissipation, molecular structures, and biophysical techniques which measure various biological processes. S/U or letter grading.


Biostatistics 286A-286B. 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.

Methodology of Clinical Trials. (4) (Same as Biostatistics M238.) Lecture, three hours; discussion, two hours. Requisites: course M281. 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.

Advanced Topics in Infectious Diseases and Biomathematics. (2) Seminar, three hours. Requisites: courses M250A, M260B. Advanced study and analysis of current topics in infectious diseases and the development of mathematical models of disease. Content varies from term to term. S/U grading.

Special Topics in Clinical Research. (2 to 4) Seminar, three hours. Requisites: courses M250A, M260B. Advanced study and analysis of current topics in clinical research. Discussion of current research and literature in research specialty of faculty member teaching course. Content varies from term to term and may include lectures from visiting scientists. May be repeated for credit with consent of instructor. S/U or letter grading.

Directed Individual Study or Research in Biomathematics. (2 to 12) Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change.

Preparation for M.S. or Ph.D. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Individual study. S/U grading.


Biomedical Engineering Interdepartmental Program

Henry Samueli School of Engineering and Applied Science

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Carlo D. Montemagno, Ph.D., Chair

Faculty Advisory Committee

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Hooshang Kangarloo, M.D. (Pediatrics, Radiological Science)
Carlo D. Montemagno, Ph.D. (Bioengineering)
Ichiro Nishimura, D.D.S., D.M.Sc., D.M.D. (Dentistry)
James N. Weiss, M.D. (Cardiology)

Scope and Objectives

The Biomedical Engineering Interdepartmental Program trains specially qualified engineers and scientists to work on engineering applications in either medicine or biotechnology.

Graduates apply engineering principles to current needs and contribute to future advances in the fields of medicine and biotechnology. Fostering career success in academia, the program offers students the choice of an M.S. or Ph.D. degree in seven distinct fields of biomedical engineering. In addition to selected advanced engineering courses, students are required to take specially designed biomedical engineering courses to ensure a minimal knowledge of the appropriate biological sciences. Students receive practical training via an M.S. or Ph.D. research thesis or dissertation in biomedical engineering. Faculty members have principal appointments in departments across campus and have well-equipped laboratories for graduate student research projects.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Biomedical Engineering Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomedical Engineering.

Biomedical Engineering

Upper Division Courses

C101. Introduction to Biomedical Engineering. (4) Lecture, three hours; laboratory, three hours; outside study, six hours. Preparation: six hours of physics in selected organs, life sciences, and engineering students. Introduction to wide scope of biomedical engineering via treatment of selected important individual topics by small team of specialists. Concurrently scheduled with course C201. Letter grading.

CM102. Basic Human Biology for Biomedical Engineers I. (4) (Same as Physiological Science CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM202. Letter grading.


CM140. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM140.) Lecture, four hours; outside study, eight hours. Requisites: Mechanical and Aerospace Engineering 102 (or Civil Engineering 108), 156A. Introduction to mechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.

C141L. Biomechanics Laboratory. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Requisite: course CM140 or Mechanical and Aerospace Engineering 156A. Hands-on laboratory pertaining to mechanical testing and analysis of long bone specimens. Students, working in pairs, engage in all aspects of procedures. Fundamentals include design and fabrication of signal processing circuitry for use in data acquisition process, including bridge components, circuits, amplifiers, and pre- and post-filters; computerized data acquisition using Lab View and A/D input/output (I/O) board; strain measurements on metallic and bone specimens. Finite element analysis of structure under investigation; comparison of experimental, theoretical, and computational results. Concurrently scheduled with course C241L. Letter grading.
CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM145.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Selected topics in molecular biology that form the foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis, and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics, and proteomics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

CM150L. Introduction to Micromachining and Micro-electromechanical Systems (MEMS). (4) (Same as Electrical Engineering M150L and Mechanical and Aerospace Engineering M180L.) Lecture, one hour; laboratory, four hours; outside study, nine hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL. Corequisite: course M150L. 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. Letter grading.

CM160L. Introduction to Micromachining and Micro-electromechanical Systems (MEMS) Laboratory. (2) (Same as Electrical Engineering M150L and Mechanical and Aerospace Engineering M180L.) Lecture, one hour; laboratory, four hours; outside study, nine hours. Requisites: course M150L. 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 go through process of fabricating MEMS devices. Letter grading.


C170. Energy-Tissue Interaction. (4) Lecture, three hours; outside study, nine hours. Requisites: Electrical Engineering 125, Life Sciences 3. Corequisite: course C170L. Introduction to therapeutic and diagnostic use of energy delivery devices in medical and dental applications, with emphasis on understanding fundamental mechanisms underlying various types of energy-tissue interactions. Concurrently scheduled with course C270L. Letter grading.

C170L. Introduction to Techniques in Studying Laser-Tissue Interaction. (2) Laboratory, four hours; outside study, two hours. Corequisite: course C170L. Introduction to simulation and experimental techniques used in studying laser-tissue interactions. Topics include computer simulations of light propagation in tissue, measuring absorption spectra of tissue/tissue phantom, making tissue phantoms, determination of optical properties of different tissues, techniques of temperature distribution measurement. Concurrently scheduled with course C270L. Letter grading.


C180. Introduction to Biomaterials. (4) (Same as Materials Science CM180.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisite: course CM150. Materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, biological response, surface chemistry, tissue response, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM280L. Letter grading.


C186A. Introduction to Cybernetics, Biomodeling, and Biomedical Computing. (2) Formerly numbered M196A.) (Same as Computer Science M186A and Cybernetics M196A.) Lecture, two hours; discussion, one hour. Requisites: Mathematics 31A, 31B Program in Computing 10A. Strongly recommended for students with potential interest in biomedical engineering/biocomputing fields or in Cybernetics as a major. Introduction and survey of topics in cybernetics, biomodeling, biomcomputation, and related bioengineering disciplines. Lectures presented by faculty currently performing research in these areas. Some sessions include laboratory tours. P/NP grading.

C186B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered M198B.) (Same as Computer Science M186B, Cybernetics M198B, and Medicine M186B.) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dynamical systems, modeling and analysis, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and simulation software packages. Demonstration of biomedical instruments, as well as fundamental aspect of biological system included. Actual demonstration of biomedical instruments as well as visits to biomedical facilities. Concurrently scheduled with course CM103L. Letter grading.

C214A. Digital Speech Processing. (4) (Same as Electrical Engineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisites: Electrical Engineering 101C and 115A. Focuses on use of digital methods and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

C217. Biophysical and Chemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemical Engineering 101C and 115A. Review of chemical reaction engineering concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of chemical engineering problems. Letter grading.

C218L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) (Formerly numbered CM186L.) (Same as Computer Science CM186L and Cybernetics M186L.) Lecture, two hours; laboratory, two hours. Requisite: course CM186B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experimental design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM285L. Letter grading.

C219. Special Topics in Biomedical Engineering. (4) (Formerly numbered 198.) Lecture, four hours; outside study, eight hours. Special topics in biomedical engineering for undergraduate students that are tailored to student interest or temporary basis, such as courses taught by resident and visiting faculty members. Letter grading.

C220. Introduction to Medical Informatics. (2) Lecture, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics and issues in medical informatics for students new to field.Demonstrations of this emerging field, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information system architectures, data and process modeling, information extraction and representations, information retrieval and visualization, health services research, telemedicine. Emphasis on current research endeavors and applications. S/U grading.
221. Human Anatomy and Physiology for Medical Informatics. (4) Lecture, four hours; outside study, eight hours. Corequisite: course 222. Designed for graduate students. Introduction to basic human anatomy and physiology, with particular emphasis on visualization of anatomy and physiology from imaging perspective. Topics include chest, cardiac, neurology, gastrointestinal/gi/entonomy, and musculoskeletal systems. Examination of basic imaging physics (magnetic resonance, computed tomography, ultrasound, computed radiography) to provide context for imaging modalities predominantly used to view human anatomy. Geared toward nonphysicians who require more formal understanding of human anatomy/physiology. Letter grading.

222. Clinical Rotation Medical Informatics. (2) Lecture, two hours; laboratory, four hours. Corequisite: course 221. Designed for graduate students. Clinical rotation through medical imaging modalities and clinical practice today and current usage of imaging, including computed tomography, magnetic resonance, and other traditional forms of image acquisition. Design to provide students with real-world exposure to practical applications of imaging and to reinforce human anatomy and physiology concepts from other courses. Four hours per week in clinical environments. Obtain in different medical environments to gain appreciation of current practices, imaging, and information systems. Participation in clinical noon conferences to further broaden exposure and understanding of medical systems. S/U grading.

223A-223B-223C. Programming Laboratories for Medical Informatics I, II, III. (4-4-4) Lecture, four hours; laboratory, two hours. Designed for graduate students. Programming laboratories to support coursework in other medical informatics core curriculum courses. Exposure to programming concepts and application methods, with focus on basic abstraction techniques used in image processing and medical information system infrastructures (HL7, DICOM). Letter grading. 223A. Integrated with course 226 to reinforce concepts presented with practical experience. Projects focus on understanding medical and networking issues and implementation of basic protocols for health care environment, with emphasis on use of DICOM. 223B. Requisite: course 223A. Integrated with courses 224A and 227 to reinforce concepts presented with practical experience. Projects focus on medical database manipulation and decision support systems. 223C. Requisite: course 223B. Integrated with courses 222, 224, and 227 to reinforce concepts presented with practical experience. Projects focus on medical image storage and retrieval.

224A. Physics and Informatics of Medical Imaging. (4) Lecture, four hours; laboratory, eight hours. Requisites: Mathematics 33A, 33B. Designed for graduate students. Introduction to principles of medical imaging and imaging informatics for nonphysicists. Overview of Dicom, radiography (CR), computed tomography (CT), magnetic resonance (MR), and ultrasound (US). Emphasis on physics of image formation and image reconstruction methods. Overview of DICOM data model, basic medical image processing, content-based image retrieval, PACS, and image data management. Current research efforts, focus on current applications and new types of information available. Geared toward nonphysicists to provide basic understanding of issues related to basic medical image acquisition. Letter grading.

224B. Advanced Imaging for Informatics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 224A. Additional modalities and current research processes in imaging. Topics include functional magnetic resonance imaging (fMRI), MR diffusion/perfusion, and optical imaging, with focus on image analysis and visualization tools. Basic physics principles behind these newer imaging concepts, with exposure to seminal works. Current research efforts, with focus on clinical applications and new types of imaging tools. Letter grading.

225. Bioseparations and Bioprocess Engineering. (4) (Same as Chemical Engineering CM225.) Lecture, four hours; outside study, eight hours. Requisites: Chemical Engineering 101C and 103, or Chemistry 156. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like white cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Letter grading.

226. Medical Knowledge Representation. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge representation and its application in health care processes. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models), different data models for representing spatio-temporal information, rule-based implementations, current statistical methods for discovery of knowledge (data mining, statistical classifiers, and hierarchical classification), and basic information retrieval. Review of work in constructing ontologies, with focus on problems in implementation and definition. Common medical ontologies, coding schemes, and standardized indices/terminologies (SNOMED, UMLS, MeSH). Letter grading.

227. Medical Information Infrastructures and Internet Technologies. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communications, and information infrastructures in medical environment. Exposure to basic concepts related to networking at several levels: low-level (TCP/IP, services), medium-level (network topologies), and high-level (distributed computing, Web-based services) implementations. Commonly used medical communication protocols (HL7, DICOM) and current medical information standards. Encoding of human knowledge in networking, such as wireless, Internet2/gigabit networks, peer-to-peer topologies. Introduction to security and encryption in networked environments. Letter grading.

228. Medical Decision Making. (4) 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 probability and statistics to understand research results and evaluations, and algorithmic methods for decision-making processes (Bayes theorem, decision trees). Study design, hypothesis testing, and estimation. Focus on technical advances in medical decision support systems and expert systems, with review of classic and current research. Introduction to confirmatory statistical and decision-making software packages to familiarize students with current tools. S/U grading.

230. Engineering Principles of Ultrasound. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Introduction to science and technology of ultrasound in medicine, starting with physical acoustics, acoustic wave (Helmholz) equation, acoustic propagation and scattering in homogeneous and inhomogeneous media, and acoustics attenuation and damping phenomena. Acoustic impedance, equivalent circuits, and network models. Electroacoustic transducers (piezoelectric and MEMS) and radiators. Acoustic generation, modulation, and pulse forming. Acoustic noise mechanisms. Receiving and processing of acoustic waves in presence of noise. Letter grading.

CM240. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM240.) Lecture, four hours; outside study, eight hours. Requisites: Civil Engineering 108 or Mechanical and Aerospace Engineering 102, 156A. Introduction to biomechanical functions of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

C241L. Biomechanics Laboratory. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Requisite: course CM140 or Mechanical and Aerospace Engineering 156A. Hands-on laboratory pertaining to mechanical testing and analysis of long bone specimens. Students, working in pairs, engage in all aspects of procedures. Fundamentals include design and fabrication of data processing circuitry for use in data acquisition process, including bridge completion circuits, amplifiers, and passive filters; computerized data acquisition using Lab View and A/D input/output (I/O) board; strain measurements on metallic and bone specimens. Finite element analysis of structure under investigation; comparison of experimental, theoretical, and computational results. Concurrently scheduled with course C214L. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, eight hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioinformatics, human genetics, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Biomedical Physics M248 and Pharmacology 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 a range of modalities. Practical experience provided through a series of imaging laboratories. Letter grading.

M250A. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Electrical Engineering M250A and Mechanical and Aerospace Engineering M250A.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course M150L. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.


M259H. Biomechanics of Traumatic Injury. (4) (Same as Environmental Health Sciences M259H.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to applied biomechanics of accidental injury causation and prevention; role of biomechanics of injury that result in bone and soft tissue trauma; discussion of mechanisms of healing for effective rehabilitation after traumatic injury. Letter grading.

M260. Neuroengineering. (4) (Formerly numbered 260.) (Same as Neuroscience M260.) Lecture, four hours; laboratory, three hours. Requisites: Mathematics 32A, Molecular, Cell, and Developmental Biology 100, 171. Introduction to principles and technologies of neural signal manipulation. Neurophysiology; clinical electrophysiology (EEG, evoked potentials, inverse problem, preoperative brain recording), extra-cellular microelectrodes and recording (field potentials and single units), chronic recording with extracellular electrodes; electrode biocompatibility, tissue damage, electrode and cable survival; intracellular recording and glass pipettes electrodes, iontophoresis; imaging neural activity (Ca imaging, voltage-sensitive dyes), intrinsic optical imaging; MRI, fMRI. Letter grading.

M261A-M261B-M261C. Evaluation of Research Design and experimental glass pipettes electrodes, iontophoresis; damage, electrode and cable survival; intracellular microelectrodes and recording (field potentials; laboratory, three hours. Requisites: course M186B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM186L. Letter grading.

295A-295Z. Seminars: Research Topics in Biomedical Engineering and Biomechanics. (1 to 4) Seminar, one to four hours. Limited to biomedical engineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295A. Nanotechnology Research.

295B. Biomaterials and Tissue Engineering Research.

295C. Minimally Invasive and Laser Research.

295D. Hybrid Device Research.

295E. Molecular Cell Biomechanics Research.

295F. Biopolymer Materials and Chemistry.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Computer Science M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmaceutical, chemical, and related systems. Control system, multicompartmental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biomechanics M270, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course C180 or Biomedical Engineering 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.

BIOMEDICAL PHYSICS

Interdepartmental Program
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Michael McNitt-Gray, Ph.D., Chair

Faculty Advisory Committee

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Michael McNitt-Gray, Ph.D. (Radiological Sciences)
Michael E. Phelps, Ph.D. (Molecular and Medical Pharmacology)
H. Rodney Withers, M.D., D.Sc. (Radiation Oncology)

Scope and Objectives

The Biomedical Physics M.S./Ph.D. Program is an AAPM-accredited interdepartmental graduate program supported by the Departments of Molecular and Medical Pharmacology, Radiation Oncology, and Radiological Sciences. It offers training in four specialties: biological imaging, medical imaging, therapeutic medical physics, and radiation biology/experimental radiation therapy. Specialized facilities for training and research are available in the departmental clinical laboratories, the UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, the Image Processing Laboratory, and a number of associated hospitals. Highly specialized equipment includes two biomedical cyclotrons, the radiation oncology cyclotron, the picture archiving and communication system (PACS), four positron emission tomography (PET) scanners, the stereotactic gamma irradiator, and many VAX and SUN computers with image processor systems. In addition, clinical equipment is available to supervised students for practicums and research purposes. The program prepares students for careers as independent researchers or professional medical physicists, and graduates are qualified to work in a clinical environment and to pursue board certification as medical physicists or to apply for a clinical medical physics residency.

Graduates in biomedical physics can expect to engage in any combination of research, teaching, clinical service, and consultation. Biomedical physicists are usually employed in hospitals frequently associated with a medical school, where they are members of the academic staff. They are also in demand in high-technology private industry engaging in research and development of diagnostic equipment. In government agencies, biomedical physicists are involved in the formulation and enforcement of regulations applied to the use of radiation in health care delivery.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Biomedical Physics Program offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Biomedical Physics.

Biomedical Physics

Upper Division Course

199. Directed Individual Studies or Research for Undergraduate Students. (2 to 4) Preparation: submission of written proposal outlining course of study or research. Directed individual studies in biomedical physics for undergraduate students to be structured by faculty member and student at time of initial enrollment.

Graduate Courses

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture, three hours; discussion, one hour. Nuclear structure, statistics of radioactive decay, nuclear radiations and their interaction with matter, nuclear decay processes, nuclear reactions, and compartment models. Physical and chemical properties of radioactive preparations used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET.

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.

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.

202A-202B. Applications of Medical Physics to Clinical Problems. (4-4) Selected studies in clinical use of radiosotopes.

202A. Nuclear Medicine. (4) Requisite: course 200B.


202C. Radiation Therapy. (4) Requisites: courses 203, 204, 208B, 221.


204. Introductory Radiation Biology. (4) Effect of ionizing radiation on chemical and biological systems.

205. Physics of Diagnostic Radiology. (4) Lecture, three hours; discussion, 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.
206. Advanced Instrumentation. (4) Lecture, three hours; discussion, one hour. Requisite: course 205. Introduction to advances in digital diagnostic imaging systems, with topics centered on instrumentation including digital subtraction angiography (DSA) methods of producing three-dimensional images.


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.

208B. Medical Physics Laboratory: Radiation Therapy. (4) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience calibrating treatment planning and radiation therapy equipment.

209. Digital Techniques in Radiological Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one course in C or another computer language. Basic principles of digital technology utilized in radiological sciences. Concepts and experience necessary to undertake radiological research in a diverse computing environment. Discussion of relationship between computers and diagnostic equipment with regard to data acquisition, equipment interfacing, and data analysis. C language programming taught.

210. Principles of Medical Imaging. (4) Lecture, three hours; discussion, one hour. Requisite: course 209. Study of imaging signals with emphasis on digital techniques in medical imaging and tissue characterization techniques. Laboratory included.

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.

213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart function. Topics include 2-deoxyglucose method for metabolic rate; iodoantipyrine method for blood flow; amino acid method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation.


215. Breast Imaging Physics and Instrumentation. (4) Lecture, three hours; laboratory, two hours. Requisite: course 205. Special requirements of mammography, design of dedicated mammography X-ray units from generators and tubes through screen/film cassettes. Stereotactic biopsy units, cost/benefit controversy of screening mammography, digital mammography, computer-aided diagnosis, tomosynthesis, mammography, breast MRI, and breast ultrasound.

216. Fundamentals of Dosimetry. (4) Lecture, three hours; laboratory, one hour. Review of fundamental statistical analysis and matter and interaction to fundamentals of radiation dosimetry. Overview of dosimetry instrumentation as well as radiation sources.

217. Statistics and Data Analysis in biomedical Physics. (2) Lecture, two hours; laboratory, one hour. Requisites: Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Introduction to computer-based statistical concepts, data analysis, and experimental design within biomedical physics research. Statistical packages and various statistical computing algorithms on relevant data sets within radiological sciences. Letter grading.

218. Radiologic Functional Anatomy. (2) Lecture, five hours; discussion, one hour. Introduction to human anatomy, cell biology, and physiology as visualized through microscopy, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Practical implications of advanced applications in biomedical imaging, including both structural and functional studies. Instruction more intuitive than mathematical. Letter grading.


220A-220D. Laboratory Rotations in Biomedical Physics. (2-2) Laboratory projects to provide students with introduction to the field. One oral and one written presentation required. S/U grading. 220A. Biophysics; 220B. Medical Imaging; 220C. Therapeutic Medical Physics; 220D. Radiation Biology and Experimental Radiation Therapy.

221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Basic principles of radiation safety as applied to medical applications. Introduction to all regulatory issues pertaining to medical uses of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) Seminar, two hours. Exploration of physiologic and molecular mechanisms that impact on response of normal and malignant tissue environment to 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.

227. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture, three hours; discussion, one hour. Present and future roles of biomedical physics; emphasis on critical and high in-depth analysis of applications. Letter grading.

228. Radiopharmaceutical Chemistry. (4) Lecture, three hours; discussion, two hours. Topics include radiopharmaceuticals as techniques that exploit interaction between diagnostic and therapeutic agents. Indications and dosage for metabolic rate; iodoantipyrine method for blood flow. Letter grading.

230. Computed Tomography: Theory and Applications. (4) (Same as Biomedical Mathematics M230.) Computed tomography is a three-dimensional imaging technique that is being widely used in radiology and is becoming an 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.

248. Introduction to Biological Imaging. (4) (Same as Biomedical Engineering M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour. Outside study topics. Exploration of the role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, imaging applications, and processing, and applications of imaging for a range of modalities. Practical experience provided through a series of imaging laboratories. Letter grading.

596. Research in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistant in graduate laboratory courses under supervision of a faculty member. S/U grading.


495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistant in graduate laboratory courses under supervision of a faculty member. S/U grading.

496. Research in Biomedical Physics. (4 to 12) Directed individual study or research. Only one 596 course may be applied toward M.S. degree requirements. May not be repeated. S/U grading.

598. Research for and Preparation of M.S. Thesis. (4 to 12) Two or more 598 courses (or 598 and 596 combined) may be applied toward M.S. degree requirements. May not be repeated. S/U grading.
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 countered in public health and medicine. They are trained in the skilled application of statistical theory of statistics as applied to problems in the life and health sciences. Biostatisticians have found careers involving teaching, research, and consulting in such fields as medicine, public health, life sciences, survey research, and computer science. There has always been a strong demand for well-trained biostatisticians; graduates have had little difficulty finding employment well suited to their particular interests.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.

Upper Division Courses

100A. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one biological or physical sciences course. Suitable for juniors/seniors. Students who have completed courses in statistics may enroll only with consent of instructor. Not open for credit to students with credit for course 110A. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biological sciences. Topics include 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, and correlation analysis. P/NP or letter grading.

110A. Basic Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: Mathematics 31B. Not open for credit to students with credit for course 100A. Basic concepts of statistical analysis applied to biological sciences. Topics include random variables, sampling distributions, parameter estimates, statistical inference, P/NP or letter grading.

110B. Basic Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 110A. Not open for credit to students with credit for course 110B. Topics include elementary analysis of variance, simple linear regression; topics related to analysis of variance and experimental designs. P/NP or letter grading.

M234. Applied Bayesian Inference. (4) (Same as Biomathematics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 115 (or Statistics 100C), 200A. Bayesian approach to statistical inference, with emphasis on both medical 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. Analysis of Repeated Measures Designs. (4) (Same as Biomathematics M282.) Lecture, three hours; discussion, one hour. Requisites: courses 115 or Statistics 100C. Statistical methods for analysis of survival data. S/U or letter grading.

216. Introduction to Statistical Methods for Biological Assays. (4) Lecture, three hours. Requisite: course 110B. Topics include standard statistical procedures for estimation of relative potency, density of microorganisms, and density of radioactivity; models used for these procedures, and statistical considerations for designing such assays. S/U or letter grading.

230. Mathematical Epidemiology. (4) (Formerly numbered M270A.) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B. Mathematical models in epidemiology and statistics applicable to medical and biological research. Letter grading.

234. Applied Bayesian Inference. (4) (Same as Biomathematics M234.) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 115 (or Statistics 100C), 200A. Bayesian approach to statistical inference, with emphasis on both medical 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.

251. Multivariate Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 250A. Multivariate analysis as used in biological and medical situations. Topics include multivariate distributions, component analysis, factor analysis, discriminant analysis, MANOVA, MANCOVA, longitudinal models with random coefficients. S/U or letter grading.


272. Theoretical Genetic Modeling. (4) (Formerly numbered M237A.) (Same as Biomathematics M272.) Lecture, three hours; discussion, one hour. Requisite: course 200A. Preparation: upper division mathematics. Topics may include segregated polymorphisms, linkage disequilibrium, analysis of genetic experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.


276. Methodological Principles of Clinical Trials. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 115A, 131A, Statistics 100B. Statistical models in clinical trials. Topics may include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.


278. Mathematical Analysis of DNA Microarray Data. (4) (Formerly numbered 278.) (Same as Human Genetics M278.) Lecture, three hours. Requisite: course 200C. Preparation: upper division mathematics, introductory instruction in use of statistical tools used to analyze microarray data. Structure corresponds to analytical protocol an investigator might follow when working with microarray data. S/U or letter grading.

406. Applied Multivariate Biostatistics. (4) Lecture, three hours; laboratory, one hour. Preparation: at least two upper division research courses. Requisites: courses 200A, 200B. 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 doctoral students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators and develop design and protocol for data analysis, implement data protocol when data is obtained, and write up the study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. (4) Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B. Design of studies in animals to assess antitumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of 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 nonmajors) or letter grading.


412. Statistical Methods for Case-Control Studies. (4) Lecture, three hours; discussion, one hour. 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 the 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.

420. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Requisite: course 403A. Database and database models applied to medical and public health studies; design of databases for efficient data retrieval and statistical analysis using package database management and statistical package programs. S/U or letter grading.

495. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit.

501. Cooperative Program. (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. (To be arranged) 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 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 8) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
bio-nano-technology, air pollution, combustion, environmental multimedia modeling, pollution prevention, aerosol processes, cryogenics, combinatorial catalysis, molecular simulation, process simulation/control/optimization/integration/synthesis, membrane science, semiconductor processing, chemical vapor deposition, plasma processing and simulation, and polymer engineering.

Students are trained in the fundamental principles of these fields while learning a sensitivity to society’s needs — a crucial combination in addressing the question of how industry can grow and innovate in an era of economic, environmental, and energy constraints.

The undergraduate curriculum leads to a B.S. in Chemical Engineering, is accredited by ABET and AIChE, and includes the standard curriculum, as well as bioengineering, biomedical engineering, environmental, and semiconductor manufacturing options. The department also offers graduate courses and research leading to M.S. and Ph.D. degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

Undergraduate Program Objectives

The mission of the undergraduate program is to educate future leaders in chemical engineering who effectively combine their broad knowledge of mathematics, physics, chemistry, and biology with their engineering analysis and design skills for the creative solution of problems in chemical and biological technology and for the synthesis of innovative chemical and biochemical processes and products. This goal is achieved by producing chemical engineering alumni who demonstrate (1) the ability to draw readily on a rigorous education in mathematics, physics, chemistry, and biology in addition to the fundamentals of chemical engineering to creatively solve problems in chemical and biological technology, (2) an understanding and sensitivity to social, ethical, environmental, and economic issues involving chemical engineering practice and an understanding of the role of chemical engineers in sustainable development, (3) successful participation in multidisciplinary teams assembled to tackle complex multifaceted problems that may require implementation of both experimental and computational approaches and a broad array of analytical tools, and (4) the ability to build on their undergraduate-level scientific knowledge and engineering skills through graduate study in the sciences and engineering and through success as professionals in diverse fields, including business, medicine, and environmental protection, as well as chemical and biological engineering.

Undergraduate Study

Chemical Engineering B.S.

The ABET-accredited chemical engineering curriculum provides a high quality, professionally oriented education in modern chemical engineering. The bioengineering, biomedical engineering, environmental, and semiconductor manufacturing options exist as subsets of courses within the accredited curriculum. Balance is sought between science and engineering practice.

The Major

Course requirements are as follows (198 minimum units required):

1. Three general engineering courses: Chemical Engineering M105A, Civil and Environmental Engineering 108, Electrical Engineering 100
3. Two elective courses from Chemical Engineering 110, C111, C112, C113, C114, C115, C116, C118, C119, C125, C140, and three upper division chemistry elective courses (except Chemistry and Biochemistry 110A). An upper division life or physical sciences course may be substituted for one chemistry elective with the approval of the faculty adviser
4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Mathematics 31A, 31B, 32A, 32B, 33A 33B; Physics 1A, 1B, 1C, 4AL, 4BL
5. HSSEAS general education (GE) requirements. See http://www.seasoasa.ucla.edu/ge.html for details

Bioengineering Option

Course requirements are as follows (202 or 205 minimum units required):

1. Three general engineering courses: Chemical Engineering M105A, Civil and Environmental Engineering 108, Electrical Engineering 100
3. Three elective courses from Chemical Engineering C115, C125, CM145 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser); one upper division ecology and evolutionary biology or microbiology, immunology, and molecular genetics or molecular, cell, and developmental biology elective that requires one year of chemistry as a requisite
4. Chemistry and Biochemistry 20A, 20B, 20L, 30AL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20; Life Sciences 1, 2, 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL
5. HSSEAS general education (GE) requirements. See http://www.seasoasa.ucla.edu/ge.html for details

Environmental Option

Course requirements are as follows (202 minimum units required):

1. Three general engineering courses: Chemical Engineering M105A, Civil and Environmental Engineering 108, Electrical Engineering 100
3. Two elective courses from Chemical Engineering C111, C118, C119, C140 (another chemical engineering elective may be substituted for one of these with approval of the faculty adviser) and three advanced chemistry electives in the environmental field from Atmospheric and Oceanic Sci-
Chemical Engineering

Lower Division Course

2. Technology and the Environment. (4) Lecture, four hours; outside study, eight hours. Natural and anthropogenic flows in both simple 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 life-cycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

Upper Division Courses

100. Introduction to Chemical Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20B, 20L, Mathematics 32B (may be taken concurrently), Physics 1A. Introduction to analysis and design of industrial chemical processes. Material and energy balances. Letter grading.

101A. Momentum Transfer. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 100. Course 107 recommended. Introduction to the analysis of fluid flow in systems of interest to chemical engineering practice. Fundamentals of momentum transport, Newton’s law of viscosity, Navier-Stokes equations, interphase momentum transport and friction factors, flows in conduits and around submerged objects. Letter grading.

101B. Heat Transfer. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101A. Introduction to analysis of heat transfer in systems of interest to chemical engineering practice. Fundamentals of thermal energy transport, Fourier’s law of heat conduction, forced and free convection, radiation, interphase heat transfer, heat exchanger analysis. Letter grading.

101C. Mass Transfer. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 101A, 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of mass species transport, Fick’s law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102. Chemical Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 100, 101B, 102. Application of principles of heat, mass, and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.

104A. Chemical Engineering Laboratory I. (8) Lecture, two hours; laboratory, eight hours; outside study, four hours; other, four hours. Requisites: courses 100, 101B, 102. Measurements of temperature, pressure, flow rate, viscosity, and fluid composition in chemical processes. Methods of data acquisition, equipment selection and fabrication, and laboratory safety. Development of written and oral communication skills. Letter grading.

104B. Chemical Engineering Laboratory II. (8) Lecture, two hours; laboratory, eight hours; outside study, four hours; other, four hours. 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, six hours. Requisites: courses 101C, 104A. Electrical Engineering 2, Materials Science 120. Course prerequisite: 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, and metallization. Hands-on device testing includes transistors, diodes, and capacitors. Letter grading.


105A. Introduction to Engineering Thermodynamics. (4) (Same as Mechanical and Aerospace Engineering 105A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20B, Mathematics 32B. Phenomenological thermodynamics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and thermodynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.


108A. Process Economics and Analysis. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 103, 104B. Integration of chemical engineering fundamentals such as transport phenomena, thermodynamics, separation operations, and reaction engineering and simple economic principles for purpose of designing chemical processes and evaluating alternatives. Letter grading.
109. Mathematical Methods in Chemical Engineering. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: courses 103, 106, 108A. Computer Science 10F. Introduction to application of some mathematical and computing methods to chemical engineering design problems; use of simulation programs as an automated method of performing steady-state and dynamic simulations and energy balance calculations. Letter grading.


C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 (or Materials Science 130), M105A. Fundamentals of cryogenics and cryogenic engineering pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature thermodynamics and cryo-engineering principles. Letter grading.


113. Air Pollution Engineering. (4) Lecture, four hours; preparation, two hours; outside study, six hours. Requisites: course 101C. Use of Fortran programming: working knowledge of Fortran programming. Discussion of theory and applications of mathematics to chemical engineering problems, with focus on numerical and analytical techniques encompassing linear and nonlinear algebraic equations, finite difference methods, and ordinary and partial differential equations. Letter grading.

116. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: Chemistry 113A. Introduction to surface and interfacial environments and properties, particularly catalytic surface and thin films for microelectronics 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 C216. Letter grading.


120. Advanced Chemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: courses 101C, 106. Principles of chemical reactor analysis and design. Particular emphasis on simultaneous effects of chemical reaction and mass transfer on noncatalytic and catalytic reactions in fixed and fluidized beds. Letter grading.

C211. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 (or Materials Science 130), M105A. Fundamentals of cryogenics and cryogenic engineering pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature thermodynamics and cryo-engineering principles. Letter grading.

126. Chemical Process Computer-Aided Design. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate students who are visiting faculty members. May be repeated once for credit. Culminating paper or project required. Only 2 units, approved by petition and used only as replacement for one regular chemical engineering laboratory course, may be applied toward the requirement. Field trips may be arranged. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 102. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 101C, 106. Principles of chemical reactor analysis and design. Particular emphasis on simultaneous effects of chemical reaction and mass transfer on noncatalytic and catalytic reactions in fixed and fluidized beds. Letter grading.

211. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 (or Materials Science 130), M105A. Fundamentals of cryogenics and cryogenic engineering 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.

212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 101A, Chemistry 30A. Formation of polymers, criteria for selecting a reaction scheme, polymerization techniques, polymer characterization. Mechanical properties. Rheology of macromolecules, polymer process engineering. Diffusion in polymer systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C212. Letter grading.

214. Electrochemical Processes and Corrosion. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 102 (or Materials Science 130), M105A. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes and metallic corrosion. Primary emphasis on fundamentals and area analysis of electrochemical and corrosion processes. Specific topics include corrosion of metals and semiconductors, electrochemical metal and semiconductive surface finishing, passivity, electrodeposition, electroless deposition, batteries and fuel cells, electro synthesis and electrochemical processes. May be concurrently scheduled with course CM214. Letter grading.

188. Special Courses in Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in chemical engineering for undergraduate students that are taught on experimental or temporary basis, such as courses taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Chemical Engineer- ing. (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. Letter grading.

199. Directed Research in Chemical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/se- niors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culminating paper or project required. Only 2 units, approved by petition and used only as replacement for one regular chemical engineering laboratory course, may be applied toward the requirement. 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.


1089. Mathematical Methods in Chemical Engineer- ing. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: course 102. 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 and other processes. Concurrently scheduled with course CM215. Letter grading.
223. Molecular Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 106 or 110. Analysis and design of molecular-beam systems. Molecular-beam sampling of reactive mixtures in combustion chambers or gas jets. Molecular-beam studies of gas-surface interactions, including energy accommodations and heterogeneous reactions. Applications to their pollution control and to catalysis. Letter grading.


234. Plasma Chemistry and Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate chemistry or engineering students. Applications of chemistry, physics, and engineering principles to design and operation of plasma and ion-beam reactors used in etching, deposition, oxidation, and cleaning of materials. Examination of atomic, molecular, and ion-beam processing of semiconductors, etc. Letter grading.


CM245. Molecular Biotechnology for Engineers. (4) (Same as Biomedical Engineering CM245.) Lecture, four hours; discussion, one hour; outside study, eight hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

C250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 106B. Application of optimization methods in chemical process design; computer aids in process engineering; process modeling; systematic flowcharting, unit operations synthesis; optimal design and operation of large-scale chemical processing systems. 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 the 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 the University. 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.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students in M.S. semiconductor manufacturing option. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examinations. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

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Chemistry and Biochemistry
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J. Albert C. Coury, Ph.D.
David S. Eisenberg, D.Phil.
Julie F. Feigon, Ph.D.
Peter M. Felker, Ph.D.
Miguel A. Garcia-Garibay, Ph.D.
Robin L. Garrett, Ph.D.
William M. Gelbart, Ph.D.
James K. Gimzewski, Ph.D.
James W. Gober, Ph.D.
Jay D. Gralla, Ph.D.
M. Frederick Hawthorne, Ph.D.
Kendall N. Houn, Ph.D.
Wayne L. Hubbell, Ph.D. (Jules Stein Professor of Ophthalmology)
Michael E. Jung, Ph.D.
Richard B. Kaner, Ph.D.
Raphael D. Levine, Ph.D.
Joseph A. Loo, Ph.D.
Harold G. Martinson, Ph.D.
Sabeena Merchant, Ph.D.
Daniel Neuhauser, Ph.D.
Emil Reissler, Ph.D.
Yves F. Rubin, Ph.D.
J. Fraser Stoddart, Ph.D. (Fred Kavli Professor of Nanosystems Sciences)
Joan S. Valentine, Ph.D.
John T. Wasson, Ph.D.
Richard L. Weiss, Ph.D.
Shimon Weiss, D.Sc.
Fred Wudl, Ph.D. (Dean M. Willard Professor of Chemistry)
Tod D. Yehes, 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 D. Boyer, Ph.D.
Richard E. Dickerson, Ph.D.
Mostafa A. El-Sayed, Ph.D.
Paul S. Farrington, Ph.D.
Christopher S. Foote, Ph.D.
Clifford S. Garner, Ph.D., D.Sc.
E. Russell Hardwick, Ph.D.
Herbert D. Kaege, Ph.D.
Charles M. Knobler, Ph.D.
Malcolm F. Nicol, Ph.D.
Howard Reiss, Ph.D.
Verne N. Schumaker, Ph.D.
Robert L. Scott, Ph.D.
Robert A. Smith, Ph.D.
Charles E. Strouse, Ph.D.
Charles A. West, Ph.D.

Associate Professors

Delroy A. Baugh, Ph.D.
Robert T. Clifford, Ph.D.
Carla M. Koehler, Ph.D.
Craig A. Merlic, Ph.D.
Christopher J. Lee, Ph.D.
Benjamin J. Schwartz, Ph.D.
Sarah H. Tobert, Ph.D.

Assistant Professors

Guillaume F. Chanfreau, Ph.D.
Paula Diaconescu, Ph.D.
Ohyun Kwon, Ph.D.
Alexandre J. Levine, Ph.D.
Yung-Ya Lin, Ph.D.
Thomas G. Mason, Ph.D. (John McTague Career Development Professor)
Heather D. Maynard, Ph.D. (Howard Reiss Career Development Professor)

Senior Lecturer S.O.E.
Arlene A. Russell, Ph.D.

Senior Lecturer

Marjorie A. Bates, Ph.D.
Steven A. Hardinger, Ph.D.

Lecturers

Max Kopelevich, Ph.D.
Laurence Lavelle, Ph.D.

Adjunct Professor

R. Stanley Williams, Ph.D.

Adjunct Associate Professor

Robert W. Armstrong, 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 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).

Undergraduate Study

Admission

Students entering UCLA directly from high school who declare a Chemistry or Biochemistry 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.
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 4009 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_tr.htm for up-to-date information regarding transfer selection for admission.

Chemistry Diagnostic Examination for First-Quarter General Chemistry
The Chemistry Diagnostic Examination is no longer required for enrollment in Chemistry and Biochemistry 14A, 17, 20A, or 20AH.

Students enroll in Chemistry and Biochemistry 14A, 20A, or 20AH, depending on major.

Students who feel they have a weak background in chemistry may enroll in Chemistry and Biochemistry 17, offered on a Passed/Not Passed basis. Course 17 carries no graduation credit but does displace 4 units on the UCLA Study List.

Advanced Placement in Chemistry
Students who have taken the Advanced Placement (AP) Chemistry Test 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 Test, 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 three majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, and General Chemistry. 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.

Courses 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 4009 Young Hall.

Chemistry B.S.
The B.S. degree program is for students who intend to pursue a career in chemistry.

Chemistry Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A, 20B, 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, either 110B or C113B, 113A, 114 (or 114H), either 136 or 144, 153A, 153L, 171, C172, and two other upper division or graduate courses in the department, including at least one additional laboratory course from 136, 144, 154, C174, 184, C185.

Physical Chemistry Concentration
The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics.

Preparation for the Major
Required: Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B, 30BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 110B, 113A, C113B, 114 (or 114H), 153A, 171, C172; one additional upper division chemistry, electrical engineering, or physical 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.chem.ucla.edu/dept/Ugrad/ 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 B.S. degree program 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, 20B, 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.

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153B, 153C, 153L, 154, 156, 171; one additional upper division or graduate course in chemistry and biochemistry; and four elective upper division or graduate courses (16 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 and 101L highly recommended). Refer to the Undergraduate Advising Office website at http://www.chem.ucla.edu/dept/Ugrad/ for a list of approved electives.

General Chemistry B.S.
The B.S. degree program 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, 20B, 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 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.

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, C160. 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://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Chemistry and Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Molecular Biology.

Chemistry and Biochemistry

Lower Division Courses

2. Introductory Chemistry. (4) Lecture; two hours; discussion; two hours. 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.

5. Collaborative Learning and Problem-Solving Workshop. (1) Instruction: three hours; Corequisite: associated chemistry course such as Chemistry and Biochemistry 14A, 20A, etc. Preferential enrollment to students in Program for Excellence in Education and Research in Sciences (PEERS). Collaborative learning workshop to develop problem-solving skills. Students must complete total of 16 hours to receive credit. May be repeated for credit with topic and/or instructor change. P/NP grading.

14A. Chemical Structures and Equilibria. (4) Lecture; three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one-half years of high school mathematics. Successful completion of Chemistry Diagnostic Examination. Not open to students with credit for course 20A. Introduction to physical and general chemistry needed for the life sciences. Quantum chemistry, atoms, atomic properties, and chemical bonding in molecules, phase changes, equilibria, and acids and bases. P/NP or letter grading.

14B. Thermodynamics, Kinetics, Organic Structures, and Spectroscopy. (4) Lecture; three hours; discussion, one hour. Enforced requisites: course 14A, and Mathematics 3A or 31A, with grades of C– or better. Not open to students with credit for courses 20A, 20B, or 30A. Introduction to physical and organic chemistry for life sciences students. First and second laws of thermodynamics, thermochemistry, free energy, electrochemistry, kinetics, mechanisms, and catalysis. General classification of organic molecules and functional groups, stereoisomers, spectroscopy, P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture; one hour; laboratory; three hours. Enforced requisites: course 14A with a grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH meters. Synthesis and kinetics techniques using compounds of interest to students in life sciences. P/NP or letter grading.

14C. Organic Molecular Structures and Interactions. (4) Lecture; three hours; discussion, one hour. Enforced requisite: course 14B with a grade of C– or better. Not open to students with credit for course 30A. NMR and mass spectrometry, conformational analysis, aromatics, oxygen- and nitrogen-containing organic molecules, transition metals and organometallics, supramolecular chemistry and molecular interactions. 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, Pharmaceutical Structures, and Activities. (4) Formerly numbered 140D. Lecture, three hours; discussion, one hour. Enforced requisite: course 14C with a grade of C– or better. Organic reactions, nucleophilic and electrophilic substitution and additions; electrochemical aromatic substitutions; carbonyl, nucleophiles, nucleophilic substitutions and drug action, and organic chemistry of pharmaceuticals. P/NP or letter grading.

17. Chemical Principles. (No credit) Lecture, four hours; laboratory, two hours. Chemistry 14 (or equivalent course) and 4 units on student’s Study List but does not yield credit toward a degree. Introduction to chemical principles: numbers, measurements, chemical calculations, gas laws, solutions, acids, bases, and salts, molecular structure, and nomenclature. Collaborative learning and problem solving; introduction to chemistry laboratory practice. P/NP grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one-half years of high school mathematics. Recommended: high school physics. Enforced requisite: successful completion of Chemistry Diagnostic Examination. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy. P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one-half years of high school mathematics. Enforced requisite: successful completion of Chemistry Diagnostic Examination. Honors course parallel to course 20A. P/NP or letter grading.

20B. Chemical Energetics and Change. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20A or 20AH, and Mathematics 31A, with grades of C– or better. Second term of general chemistry. Intermolecular forces and organization, phase behavior, chemical thermodynamics, solutions, equilibria, reaction rates and laws. P/NP or letter grading.

20BH. Chemical Energetics and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20A with a grade of B+ or better or 20AH with a grade of B or better. Honors course parallel to course 20B. P/NP or letter grading.

20L. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced requisite: course 20A with a grade of C– or better. Enforced corequisite: course 20B. Use of the balance, volumetric techniques, volumetric and potentiometric analysis. Beer’s law, applications for environmental analysis and materials science. P/NP or letter grading.

30A. Chemical Dynamics and Reactivity: Introduction to Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 14B or 20BH, with a grade of B+ or better. Honors course parallel to course 30A. P/NP or letter grading.

30AH. Chemical Dynamics and Reactivity: Introduction to Organic Chemistry (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20B or 20BH, with a grade of B+ or better. Honors course parallel to course 30A. P/NP or letter grading.

30AL. General Chemistry Laboratory II. (4) Lecture, one hour; laboratory, four hours. Enforced requisites: courses 30A or 30AH and 30AL, with grades of C– or better. Enforced corequisite: course 20B. Basic experimental techniques in organic synthesis (distillation, extraction, crystallization, and performing reactions), organic synthesis (melting and boiling point, refractive index, chromatography, IR, NMR, GC). Single and multistep synthesis of known organic molecules on microscale level. 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 20B. Basic experimental techniques in organic synthesis (distillation, extraction, crystallization, and performing reactions), organic synthesis (melting and boiling point, refractive index, chromatography, IR, NMR, GC). Single and multistep synthesis of known organic molecules on microscale level. P/NP or letter grading.

30CL. Organic Chemistry Laboratory II. (4) Lecture, two hours; laboratory, six hours. Enforced requisites: courses 30B and 30BL, with grades of C– or better. Enforced corequisite: course 30C. Modern techniques in synthetic organic and analytical organic chemistry. Semi-preparative scale, multistep synthesis of organic and organometallic molecules, including asymmetric catalysts. One- and two-dimensional multinuclear NMR techniques in written reports and proposals. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (2-2) Seminar, two hours. Limited to freshmen/sophomores. General introduction to frontiers of molecular sciences or intensive exploration of a particular theme or topic. Consult Schedule of Classes for topics and instructors. P/NP or letter grading.

88A. Serendipity in Science. (2) Limited to 20 freshmen. Inquiry into unexpected discoveries in science that have had significant impact on society and analysis of circumstances which brought these about, beginning with discovery of helium in the sun by Janssen in 1868 (using the newly developed field of spectroscopy). Discovery of X rays by Röntgen in 1895 and of radioactivity by Becquerel in 1896. Other topics include discoveries important to medicine, such as penicillin by Fleming in 1928 and cis-platin by Rosenberg in 1969.

96. Special Courses in Chemistry. (1 to 4) To be arranged. May be repeated for a maximum of 8 units.

97A. PEERS Seminars: Careers in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of seminars and workshops to acquaint students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to graduates with science degrees. P/NP grading.
Upper Division Courses

103. Environmental Chemistry. (4) Lecture, four hours; discussion, one hour. Required: courses 30B, 30BL, 110A, 113A (or 153AH), 153L. Chemical aspects of air and water pollution, solid waste disposal, energy resources, and pesticide effects. Chemical reactions in the environment and effect of chemical processes on the environment. P/NP or letter grading.

M104. Environmental Chemistry Laboratory. (4) (Same as Atmospheric and Oceanic Sciences M140.) Lecture, two hours; laboratory, three hours. Required: course 20B. Laboratory experience for students who wish to pursue career in environmental science. Essential laboratory procedures to be performed in context of timely environmental issues involving smog formation, acid rain, and ozone depletion. Hands-on experience using scientific instruments and analytical techniques appropriate for environmental assessment. P/NP or letter grading.


110A. Physical Chemistry: Chemical Thermodynamics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Required: 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 6A, 6B, 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. Required: course 20B, Mathematics 32A, 32B, 32C, 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 vs. Newton equations; model systems: particle-in-a-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms, spin, and Pauli principle, chemical bonding. P/NP or letter grading.

C113B. Physical Chemistry: Introduction to Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Required: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrational and rotational spectra, electronic spectra, magnetic resonance spectroscopy. Concurrently scheduled with course C213B. 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 C– or better. Enforced corequisite: course 110B or C113B. Lecture includes techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes topics in physical chemistry 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. Recommended: knowledge of differential equations equivalent to Mathematics 135A or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C115B or Physics 115B is requisite to C115B. Students entering course C115A are normally expected to take course C115B the following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time-dependent perturbation; photochemistry; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C215A-C215B.


M120. Soft Matter Laboratory. (4) (Same as Physics M180G.) Lecture, four hours. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed junior-year courses in physical chemistry. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Recommended: course 113A. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition function, internal energy; understanding of the perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para-hydrogen, chemical equilibria, reaction rates, the imperfect gas, nonelasticity of electron systems, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C223A-C223B.

125. Computers in Chemistry. (4) Lecture, three hours. Preparations: working knowledge of Fortran IV or PL/1. Requisites: courses 110A, 110B, 113A. Discussion of computer techniques, including matrix manipulation, solution of differential equations, data acquisition, and instrumental control, and their applications to chemical problems in quantum mechanics, thermodynamics, and kinetics. 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, C++, JAVA, or PASCAL. Requisites: course 110A, Mathematics 31A, 31B, 32A, 32B, 33A. Introduction to 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.

136. Organic Structural Methods. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Laboratory course in organic structure determination by chemical and spectroscopic methods; microtechniques. P/NP or letter grading.

C143A. 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 basicity; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C243A. P/NP or letter grading.

C143B. Mechanism and Structure in Organic Chemistry Laboratory. (4) Lecture, four hours; discussion, one hour. Required: course C143A with a grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243B.


C145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Required: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with force-field and quantum mechanical computer calculators. Concurrently scheduled with course C245. P/NP or letter grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 14D or 30B, with a grade of C– or better. Recommended: Life Sciences 2, 3. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Required: course 14D or 30B, with a grade of C– or better. Recommended: Life Sciences 2, 3. Honors course parallel to course 153A. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Synthesis. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 153A or 153AH. Life Sciences 2, 3. Nucleotide metabolism; DNA replication; DNA repair; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153BH. Biochemistry: DNA, RNA, and Protein Synthesis (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 153A or 153AH, Life Sciences 2, 3. Nucleotide metabolism; DNA replication; DNA repair; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 153A or 153AH. Biosynthesis of carbohydrate, 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. Required: course 153A or 153AH. Honors course parallel to course 153C. P/NP or letter grading.
154. Biochemical Methods II. (5) Lecture, three hours; discussion, one hour. Enforced requisites: courses 14CL and 14D, or 30B and 30BL, and 153A or 153AH (may be taken concurrently), with grades of C– or better. Recommended: courses 135A, 153B, or 153BH, and 153L, with grades of C– or better. Recommended: course 156. Two to three major laboratory projects involving characterization of an enzyme purified from meat or characterization of an enzyme purified from muscle, with emphasis on concepts behind rapid development of these materials. Concurrently scheduled with course C265.

156. Two to three major laboratory projects using biochemical laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.

CM155. Biological Catalysis. (4) (Same as Molecular, Cell, and Developmental Biology CM160.) Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, substrates, inhibitors, and products. Kinetic principles; electronic structure of metal ions; ligand-field theory; vibrational spectroscopy, gas chromatography, mass spectrometry, X-ray fluorescence, and other modern methods. P/NP or letter grading.

157. Introduction to Inorganic Chemistry. (4) Lecture, two hours; discussion, one hour. 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 laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.

CM155. Biological Catalysis. (4) (Same as Molecular, Cell, and Developmental Biology CM160.) Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, substrates, inhibitors, and products. Kinetic principles; electronic structure of metal ions; ligand-field theory; vibrational spectroscopy, gas chromatography, mass spectrometry, X-ray fluorescence, and other modern methods. P/NP or letter grading.

157. Introduction to Inorganic Chemistry. (4) Lecture, two hours; discussion, one hour. 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 laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.

CM155. Biological Catalysis. (4) (Same as Molecular, Cell, and Developmental Biology CM160.) Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, substrates, inhibitors, and products. Kinetic principles; electronic structure of metal ions; ligand-field theory; vibrational spectroscopy, gas chromatography, mass spectrometry, X-ray fluorescence, and other modern methods. P/NP or letter grading.

157. Introduction to Inorganic Chemistry. (4) Lecture, two hours; discussion, one hour. 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 laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.

CM155. Biological Catalysis. (4) (Same as Molecular, Cell, and Developmental Biology CM160.) Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, substrates, inhibitors, and products. Kinetic principles; electronic structure of metal ions; ligand-field theory; vibrational spectroscopy, gas chromatography, mass spectrometry, X-ray fluorescence, and other modern methods. P/NP or letter grading.

157. Introduction to Inorganic Chemistry. (4) Lecture, two hours; discussion, one hour. 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 laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.

CM155. Biological Catalysis. (4) (Same as Molecular, Cell, and Developmental Biology CM160.) Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, substrates, inhibitors, and products. Kinetic principles; electronic structure of metal ions; ligand-field theory; vibrational spectroscopy, gas chromatography, mass spectrometry, X-ray fluorescence, and other modern methods. P/NP or letter grading.

157. Introduction to Inorganic Chemistry. (4) Lecture, two hours; discussion, one hour. 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 laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription and translation of DNA to RNA; protein-DNA, protein-RNA, and protein-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.
204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA program in Cellular and Molecular Biology. Predoctoral Training. Required of all third-year students. Re- search seminar presented by students in their third year of support in program. S/U grading.

205. Introduction to Chemistry of Biology. (4) Lecture, three hours. Overview of biochemistry, pharma- cology, and physiology, with emphasis on chemical in- teractions at molecular level.

206. Chemistry of Biology Seminar. (2) Discussion, three hours. Limited to students supported by UCLA program in Chemistry of Biology. Interface Predo- rctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

207. Organometallic Chemistry. (4) Lecture/discus- sion, three hours. Requisite or corequisite: course C243A. Survey of synthesis, structure, and reactivity (emphasizing a mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including olefin complexes and metal carbonyls; ap- plications in catalysis and organic synthesis.


210. Scientific Glassblowing. (1) Laboratory, one hour. Instruction in safe handling and manipulation of scientific glassware and introduction to basic glassblowing techniques such as bending, annealing, and fire-polishing of glass. Proper cutting of glass and repair- ing of cracks. S/U grading.

C213B. Physical Chemistry: Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infr-ared and Raman spectroscopy, vibrations in poly- atomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C113B. Independent study project re- quired of graduate students. S/U or letter grading.

C215A-C215B. Quantum Chemistry: Methods. (4- 4) Lecture, four hours; discussion, one hour. Requi- sites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A. Recommended: knowledge of differential equa- tions equivalent to Mathematics 135A or Physics 131, and of analytic mechanics equivalent to Physics 105A. Course C215A or Physics 115B is requisite to C215B. Students entering course C215A are normally expected to take course C215B the following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic de- velopment of nonrelativistic quantum mechanics; ex- pansion theorems; wells, oscillators; angular momen- tum; hydrogen atom; matrix techniques; approxima- tion methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bond- ing. May be concurrently scheduled with courses C115A-C115B.


215D. Molecular Spectra, Diffraction, and Struc- ture. (4) Lecture, three hours; discussion, one hour. Requisites: course C215B, Physics 131. Selected topics from electronic spectra of atoms and mole- cules; 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) Seminars presented by staff, outside speakers, post- doctoral fellows, and graduate students. May be re- peated for 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 chem- istry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

219C. Physical Chemistry of Complex Fluids.

219D. Computer Simulation in Chemistry.

219E. Dynamics of Molecule-Molecule and Molecule- Surface Reactions.

219F. Environments in Chemistry and Global Cycling.

219I. Spectroscopy of Isolated Molecules, Complex- es, and Clusters.

219J. Chemistry and Biophysics of Interfaces.


219L. Modern Methods for Molecular Reactions and Structure.

219N. Cosmochemistry.

219O. Chemistry and Physics of Nanostructures.

219P. Statistical Mechanics of Complex Fluids.

219Q. Ultrafast Studies of Chemical Reaction Dy- namics in Condensed Phase.


219S. Nanoscience.


219V. Complex Fluids: Composition, Structure, and Rheology.

221A-221Z. Advanced Topics in Physical Chemis- try. (2 to 4 each) Each course encompasses a rec- ognized area of research in physical chemistry, generally taught by a staff member whose research interests embrace that specialty. S/U or letter grading.

C223A-C223B. Classical and Statistical Thermo- dynamics. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 113A. Presentation of fundamentals of classi- cal thermodynamics. Principles of statistical thermo- dynamics: probability, ensembles, partition functions, independent molecules, and the perfect gas. Applica- tions of classical and statistical thermodynamics se- lected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic ef- fects, ortho-para hydrogen, chemical equilibria, reac- tion rates, the imperfect gas, nonelectrolyte and elec- trolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B.


228. Chemical Physics Seminar. (2) Seminars pre- sented by staff, outside speakers, postdoctoral fel- lows, and graduate students. May be repeated for credit. S/U or letter grading.

229. Introduction to Physical Chemistry Re- search. (2) Lecture, 90 minutes. Designed primarily for entering graduate physical chemistry students. S/U grading.

M230B. Structural Molecular Biology. (4) (Same as Molecular, Cell, and Developmental Biology M230B.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure; struc- ture of globular proteins and RNA; structures of fi- brous proteins, nucleic acids, and polysaccharides; harmonic analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Molecular, Cell, and Developmental Bi- ology M230D.) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biolo- gy, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffrac- tion, optical diffraction, optical filtering, three-dimen- sional reconstruction from electron micrographs, and model building. S/U or letter grading.


235A-235Z. Seminars: Research in Organic Chemistry. (2 each) Seminar, three hours. Advanced study and analysis of current topics in organic chem- istry. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.


235D. Modern Photochemistry and Biooxidants.

235E. Theoretical and Physical Organic Chemistry.

235F. Synthetic Methods and Synthesis of Natural Products.


235L. Fullerenes Chemistry and Materials Science.


235L. Supramolecular and Macromolecular Chemis- try.

235M. Organic Solid-State Chemistry.

235N. Target- and Diversity-Oriented Synthesis of Natural Products and Product-Like Molecules.

235O. Polymer Chemistry and Biomaterials.

236. Spectroscopic Methods of Organic Chemis- try. (4) Lecture, three hours. Requisite or corequisite: course C243A. Problem solving using infrared and car- bon 13 nuclear magnetic resonance, infrared spec- troscopy, and mass spectrometry; new techniques in NMR, IR, and MS, with emphasis on Fourier trans- form NMR.
241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Requisite or corequisite: course C243A. Each course encompasses a recognized specialty in organic chemistry, generally taught by a staff member whose research interests embrace that specialty.


C243A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanics of organic reactions. Acidity and acid catalysis; linear free energy relationships; isotope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C143A. S/U or letter grading.

C243B. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C143B.

244A. Organic Synthesis: Methodology and Stereoselectivity. (4) Modern synthetic reactions and transformations involving organic substrates. Special emphasis on regents useful in asymmetric induction and stereoselective synthesis of structurally complex target molecules.


C245. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 91C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with force-field and quantum mechanical computer calculations. Concurrently scheduled with course C145. S/U or letter grading.

247. Organic Colloquium. (2) Seminars in organic chemistry and related areas presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

248. Organic Chemistry Student Seminar. (2) Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.


249B. Problems in Advanced Organic Chemistry. (2) Designed primarily for first- and second-year graduate students as preparation for cumulative examinations. Problem sets and discussions on organic reactions mechanisms, synthesis, structure determination, stereochemistry, spectroscopy, electronic theory, photochemistry, and organometallic chemistry, with emphasis on current research literature. May be repeated for credit. S/U grading.


251A-251Z. Advanced Topics in Biochemistry. (2 each) Each course encompasses a recognized specialty in biochemistry, generally taught by a staff member whose research interests embrace that specialty.

M252. Seminar: Advanced Methods in Computational Biology. (2) (Same as Human Genetics CM252.) Lecture, 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.


CM255. Biological Catalysis. (4) (Same as Biological Chemistry CM255.) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 153A, 153B, Life Sciences 3, Molecular Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereochemistry, chemical modification, and spectroscopy; design of pharmaceutically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Concurrently scheduled with course CM155S. Graduate students required to write major laboratory report. S/U grading.

CM256-256Z. 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.


258. Advanced Topics in Biochemistry and Molecular Biology. (2) Lecture, two hours. Critical analysis of experimental design and methods in biochemistry, molecular biology, 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.


C259B. Mechanisms in Regulation of Transcription II. (2) (Formerly numbered CM259B.) Second five weeks. Lecture, four hours. Requisite: course C259A. Eukaryotic general transcription apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways; transcription factors in embryogenesis. Concurrently scheduled with course C116B. S/U or letter grading.

C261A. Plant Biochemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 153C. Introduction to distinctive features of plant biochemistry. Topics include photosynthesis, nitrogen metabolism, plant cell wall metabolism, and secondary metabolism in relation to stress. Concurrently scheduled with course C161A.

262. Biochemistry and Molecular Biology of Protein Translocation Systems. (2) Lecture, two hours; discussion, two hours. Requisites: courses CM253, or 269A through 269D. Protein translocation into nucleus, mitochondrion, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

M263. Metabolism and Its Regulation. (4) (Same as Biological Chemistry M263.) Lecture, three hours. Requisites: course 110A, and one course from 153B, 153C, C160, or Biological Chemistry 201A or 201B. Thermodynamic and kinetic aspects of metabolism; regulatory properties of enzymes; metabolic regulation; consideration of comparative aspects of metabolism in relation to function. Letter grading.

C265. Metabolic Control by Protein Modification. (2) First five weeks. Lecture, three hours; discussion, one hour. Requisites: courses 153A, 153B, 153C. Biochemical basis of controlling metabolic pathways by posttranslational modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C165.


272. Organometallic Synthesis and Chemical Vapor Catalysis and Small Molecule-Activation Mediated by Transition-Metal Complexes.

273. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with a grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, electronic structure and ligand-field theory, mechanisms of inorganic reactions, bonding and spectroscopy of organometallic compounds, transistions in catalysis and biology. Concurrently scheduled with course C174. S/U or letter grading.

274. Inorganic and Metallorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and C172, with grades of C– or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenk 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, C172. Survey of inorganic reactions; mechanistic principles; electronic structure of metal ions; transition-metal chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free-radical, polymerization, and phase of inorganic species. May be concurrently scheduled with course C175. S/U or letter grading.

276. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and surface science methods, to inorganic compounds and materials. S/U or letter grading.

277. Crystal Structure Analysis. (4) Lecture, three hours. Theory and practice of modern crystallography, with emphasis on practical experience in structure determination. Topics include crystallographic scattering, theory, data collection, Fourier analysis, heavy atom techniques, direct methods, isomorphous replacement, phase refinement, error analysis, and common pitfalls. S/U or letter grading.

278. Inorganic Chemistry Student Seminar. (2) Seminars presented by staff, outside speakers, post-doctoral fellows, and students. May be repeated for credit. S/U or letter grading.

280. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course C172. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to the understanding of these materials. Concurrently scheduled with course C180. S/U or letter grading.

281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as ductile and biomedical polymers and polymeric agents in synthesis. Concurrently scheduled with course C181. S/U or letter grading.

282. Introduction to Inorganic Chemistry Research. (2) Lecture, 90 minutes. Discussion of current research in inorganic chemistry, designed primarily for entering graduate inorganic chemistry students. S/U grading.


C265. Materials Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30AL, 110A, 113A, 171. Materials synthesis and physical properties of complex materials. Combines synthetic skills with fundamental physical understanding and characterizations of approximately proportional to relate materials synthesis to materials function. Concurrently scheduled with course C165.

M370A. Integrated Science Instruction Methods. (4) (Same as Earth and Space Sciences M370A and Physics M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower division year (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.

M370B. Integrated Science Instruction Methods. (4) (Same as Earth and Space Sciences M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: course M370A or Earth and Space Sciences M370A or Physics M370A (or former course 370). 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 the University. May be repeated for credit. S/U grading.

400. Safety in Chemical and Biochemical Research. (2) Survey of safe laboratory practices for experimental research in organic, inorganic, and physical chemistry and biochemistry. Topics include laser safety, cryogenic hazards, high- and low-pressure experimentation, gas and carcinogen handling, chemical spills, fire extinguishing, and chemical disposal. S/U grading.

495. Teaching College Chemistry. (2) Seminar, two hours; discussion, two hours; 20 hours training during week prior to Fall Quarter. Course for teaching assistants designed to deal with problems and techniques of teaching college chemistry. S/U grading.

596. Directed Individual Study or Research. (2 to 16) To be arranged with faculty member who directs the study or research. May be repeated for credit. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 4) S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 16) Each faculty member supervises research of M.S. students and holds research group meetings, seminars, and discussions with the students.
Transfer Students
Transfer applicants to the Chemistry/Materials Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one organic chemistry course, one and one half years of calculus, and one year of calculus-based physics with laboratory.

Transfer applicants to the organic materials concentration must complete a full year of organic chemistry with laboratory in addition to the other courses listed above.

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: Chemistry and Biochemistry 110A, 113A, 171, C172 or C180 or C181, C185, 4 units from 110B, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 110, 110L, 120, 121 or 150 or 160, 131, 8 units from 111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 131L, 161L.

The following courses may be applied only once toward the major: Chemistry and Biochemistry C172, C180, C181, Materials Science and Engineering 121, 150, 160.

Organic Materials Concentration
Preparation for the Major

The Major
Required: Chemistry and Biochemistry 110A, 113A, 136, 171, C185, 4 units from 110B, C143B, 144, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 110, 110L, 120, 150, 4 units from 111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 131L, 161L.

For further information, contact Wendy Fuji-nami, Chemistry and Biochemistry, 4009 Young Hall, (310) 825-1859.

Scope and Objectives
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 involving chemistry, engineering, and applied science.

Undergraduate Study
Chemistry/Materials Science B.S.
Preparation for the Major
The interdisciplinary curriculum is an effective environment for teaching fundamental academic skills such as critical thinking and writing, as well as for exposing students to the wide range of theories, methodologies, technologies, and pedagogies that intersect the discipline. The curriculum is bilingual, learner-centered, writing-intensive, and academically rigorous.

**Undergraduate Study**

**Chicana and Chicano Studies B.A.**

The B.A. program in Chicana and Chicano Studies is committed to the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, language, race, ethnicity, class, assimilation/acculturation paradigms, and indigenous traditions. The literary and visual arts often function as vehicles for social change and creative empowerment, and so they constitute one focus of the curriculum, which 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/Chicano 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 15 upper division courses, including Chicana and Chicano Studies courses numbered 195, 196, 198A, 198B, 198C, 200SL, 210; nine courses from the approved list of Chicana and Chicano Studies courses (available in the department office each term); and three related study courses and one advanced seminar from the approved list of courses or by petition to the department chair or undergraduate adviser. 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.

No more than 8 units of 199 courses may be applied toward the major; 199 courses applied toward the multidisciplinary senior thesis option may not also be applied toward the major. Registration in 199 courses must be approved in writing by the department chair.

All major courses must be taken for a letter grade, with 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 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary senior thesis and who are eligible for the honors program may 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.

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).

No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

**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 Chicanas/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 lower division students. Readings and discussions designed to introduce students to current research in Chicana/Chicano studies. Culminating project may be required. May not be applied toward departmental major or minor requirements. 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. P/NP or letter grading.

98. **Professional Skills Seminars.** (2) Seminar, tw hours. Limited to 20 students. Introduction to issues of professional (nonacademic) settings and careers through readings and other assignments. P/NP or letter grading.

**Upper Division Courses**

100SL. **Barrio Service Learning.** (4) (Formerly numbered 196SL.) 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 improvement 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 required. Letter grading.

M102. Mexican Americans and Schools. (4) (Same as Education M102.) Seminar, four hours. Theoretical and empirical overview of Chicana/Chi- cano educational issues in the U.S., with special em- phasis on desegregating effects of race, gender, class, and immigrant status on Chicana/Chicano education- al attainment and achievement. Examination of how historical, social, political, and economic forces im- pact Chicana/Chicano educational experience. P/ NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (4) (Same as Theater M103C.) Lecture, three hours. Designed for juniors/seniors. Exploration of develop- ment of Chicano theater from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s).

M103D. Contemporary Chicano Theater: Begin- ning of Chicano Theater Movement. (4) (Same as Theater M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions which led to emergence of Chicano theater. Letter grading.


M105A. Early Chicana/Chicano Literature. (5) (Same as English M105A.) Lecture, four hours; dis- cussion, one hour (when scheduled). Enforced requi- site: English Composition 3 or 3H. Survey of Chicana/ Chicano literature from the 16th century through Zoot Suit Riots (1943), including both oral and written forms of literary expression ( corridos, folktales, es- says, memoirs, novels, and poetry) by such authors as Cabeza de Vaca, Juan Seguin, Américo Paredes, and Maria Ruiz Amparo Burton. P/ NP or letter grad- ing.

M105B. Recent Chicana/Chicano Literature. (5) (Same as English M105B.) Lecture, four hours. En- forced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1943, beginning with reactions to Zoot Suit Riots and continuing through Chicana/Chicano Movimiento to contempo- rary literature. Focus on Chicana and Chicano novels, memoirs, essays, and poetry by such authors as Luis Valdez, Cherrie Moraga, Sandra Cisneros, Rodolfo Anaya, Rolando Hinojo- so, Oscar Zeta Acosta, and Ana Castillo. P/ NP or letter grading.

M106. Health in Chicano/Latino Population. (4) (Formerly numbered 106.) (Same as Public Health M106.) Lecture, four hours; discussion, one hour. De- signed for juniors/seniors. Examination of Chicano/ Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demo- graphic/immigration changes. Biotechnological under- standing of health effects in the U.S. and Mexico. Letter grading.

M108A. Music of Latin America: Mexico, Central America, and the Caribbean Isles. (4) (Same as Ethnomusicology M108A.) Lecture, four hours; dis- cussion, one hour. Survey of traditional and contempo- rary musical culture.

109. Chicana/Chicano Folklore. (4) Lecture, four hours. Examination of roots of Chicana/Chicano folk- lore in Mexican oral tradition in the mid-19th century and development of Chicana/Chicano folklore to the present day. P/ NP or letter grading.

M110. Chicana Feminism. (4) (Same as Women's Studies M132A.) Lecture, three hours. Required: course 10A or Women's Studies 10. Examination of theories and practices of women who identify as “Chi- cana feminist.” Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within the Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. P/ NP or letter grading.

111. Chicana/Chicana and Latina/Latino Intellec- tual Traditions. (6) Lecture, five hours. General view of philosophical, cultural, and social thought as well as intellectual traditions in the Americas. Roles of writers as intellectuals and cultural/political strate- gists, and as definers of (national) identity, social real- ity, and struggles of liberation. Letter grading.

112. Ethnic Groups and Their Bibliographies: Latino History and Culture. (4) (Same as Informa- tion Studies M111C.) Lecture, four hours. Introduc- tion to bibliographical and research tools and method- ods for students with interests in Latino history and culture. P/ NP or letter grading.

114. Chicanos in Film/Vide0. (6) (Same as Film and Television M117.) Lectures/screenings, eight hours. Historical and analytical examination of rep- resentation of Mexican Americans and Chicanos in four Hollywood genres — silent “greaser” films, social problem films, the Western, and the gang films — which are major genres that account for films “about” or “with” Mexican Americans produced between 1908 and 1980. Examination of recent Chicano-produced films that subvert or “signify” on these Hollywood genres. Includes The Ballad of Gregorio Cortez, and Born in East L.A. Consideration of short- er, more experimental work that critiques the Holly- wood image of Chicanos.


116. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Formerly numbered 197B.) Lecture, four hours; dis- cussion, two hours. Designed for juniors/seniors. Discussion of critical analysis and policy recommenda- tions for students with interests in Latino history and culture and representations in icons, heroes, legends, stereotypes, and popular art forms through literature, film, video, music, mass media, and oral history.
132. Border Consciousness. (4) Lecture, three hours. Investigation through history, popular culture, and mass and biocultural identities produced by geographical and cultural space between Mexico and the U.S. Special attention to border consciousness as site of conflict and resistance. 


134. Exhibiting Cultures. (4) Lecture, three hours. Analysis, through a cultural studies perspectives, of the role of objects in the construction of cultural identities and representations of Chicana/o history and culture. Visits to ethnic museums, local historical sites, and Chicana/o community organizations. Letter grades.

M135. Bilingual Writing Workshop. (4) (Formerly numbered M195.) Same as Women's Studies M135C.) Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; register for course Web page. Technical instruction, analysis, and theoretical discussion of bilingual creative expression, with focus on specific genre (i.e., autobiography, poetry, fiction). Emphasis on memory, identity, gender, and sexuality. Central themes of politics and aesthetics. Peer critique of weekly writing assignments. Letter grading.

M139. Topics in Chicana/Chicano Literature. (5) (Formerly numbered M193.) Same as English. M179B.) Seminar, three hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicano literature. Topics include labor and literature; Chicana/Latina visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; literary New Mexico; and specific literary genres. May be repeated for credit. P/NP or letter grading.

141. Chicana and Latin American Women's Narrative. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analyses, comparisons, and discussions of the literary production of U.S. Chicana writers and their Latin American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Letter grading.

142. Mesoamerican Literatures. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Survey of the cultures, societies, and languages of Meso America, with emphasis on major periods of prehistory and history. Letter grading.

M144. Women's Movement in Latin America. (4) (Formerly numbered 144.) (Same as Women's 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 diverse political systems as well as national and transnational arenas, students gain understanding of cultural 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.


M146. Chicano Narrative. (4) (Same as Spanish M146.) Lecture, three hours. Introduction to major narrative genres in Chicana/Latina literature. Focus on narrative forms common to and addressed specific social/historical problems. Letter grading.

147. Transnational Women's Organizing in Americas. (4) (Formerly numbered 147.) (Same as Women's Studies M147C.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalization and essential to political and social struggles encompassed in transnational power relations. Exploration of how gender and gender identity influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned through transnational organizing. P/NP or letter grading. 


149. Gendered Politics and Women's Organizing in Latin America. (4) (Formerly numbered 197G.) Lecture, four hours. Examination of Chicanas/Latinas in politics and as policymakers in appointed and elected offices. Analysis of gendering of politics and political behavior. Letter grading.

150. Affirmative Action: History and Politics. (4) (Formerly numbered 197L.) Lecture, four hours. Historical examination of political economic context in which affirmative action policies and programs were conceived and implemented. Review of impact on Chicana/Chicanos, Latinas/Latinos, and other communities. Specific analysis of university admissions, hiring and contracting practices, and state initiatives. Letter grading.


M155. Latinos in the U.S. (4) (Same as Sociology M155.) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Exploration of historical and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in the larger social structure and on comparison with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

M159A. History of Chicano Peoples. (4) (Same as History M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent (Indio-Mestizo-Mulato) north of Rio through the 17th, 18th, and 19th centuries, with special focus on student development of academic skills in Spanish. Comparison with Spanish language mass media in other parts of world. Letter grading.
M164SL. Spanish/English Exchange. (Same as Spanish M164SL.) Seminar, three hours; fieldwork at Venice Community Schools, two hours. Preparation: two years of college or university Spanish. Students are paired with one or more English as a Second Language (ESL) Venice High students and converse for two hours in Spanish and two hours in English. Topics for Spanish portion provided in APS manual; topics for English exchange selected by ESL teacher. Encounters form basis for student compositions and oral reports and supply part of raw data for learner’s journal. Review of key areas of Spanish grammar to allow UCLA students to improve language skills, increase knowledge of Latino community and new immigrant Latino youth, and help Venice students improve their English. Some discussions concern U.S. culture, importance of higher education, student adaptation to life in the U.S., and stimulation of their interest in higher education. 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 socialization, as well as institutional ideologies.


166. Representations of Latinos in Print Media. (4) Lecture/research, three hours. Examination of systematic and critical representation of Latino culture as media source (Los Angeles 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 immaterial to education and crime to culture.

169. Representations of Indigenous Peoples in the Americas. (4) Lecture, four hours. Strongly recommended requisite: course 101. Introduction to different forms of representation of indigenous peoples and their presence in the Americas, with emphasis on Mesoamerica and the Andes. How indigenous images are expressed, perceived, and constructed at point of contact with Europeans during development of indigenismo and in current period. Discussion of how these relate to Chicana/Chicano identity construction. Letter grading.

M170. Latinos, Linguistics, and Literacy. (5) (Same as Honors Collegium M128 and Spanish M170.) 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 preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire’s liberation pedagogy), history of writing systems, phoneme as basis for alphabetic writing, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

M172V. Culture Change and the Mexican People. (4) (Same as Anthropology M172V) Lecture, three hours. Requisite: course 10A or 10B or Anthropology 9. Culture change theory encompasses such issues as innovation, syncretism, colonialism, modernization, urbanization, migration, and acculturation. Examination of methods anthropologists/ethnographers use to analyze culture change within ethnohistorical background of the Mexican and Mexican American people to clarify social and cultural origins, life histories, and present-day, most importantly, unravel various culture change threads of that experience. Topics include technology and evolution, Indian nation-states, mestizaje, colonialism, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Afro-American Studies M173 and Labor and Workplace Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular forms of nonviolent movements as they impact and dominate social change organizing in Los Angeles. P/NP or letter grading.

M175. Chicana Art and Artists. (Formerly numbered M169.) (4) (Same as Art M164 and World Arts and Cultures M126.) Lecture, four hours. Introduction to Chicana art and artists. Examination of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicana/Latinas. Letter grading.

177. Latino Social Policy. (4) Lecture, three hours. Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in the U.S. through assessments of social, legal, and political policies 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. Latinas/Latinos and Law: Comparative and Historical Perspectives. (4) (Formerly numbered 197D.) Lecture, four hours. Survey of experiences of Latinas/Latinos with U.S. legal system. Examination of latinas’ approach to legal issues as they impact social change in the Americas. Letter grading.

179. Language Policies and Politics in the United States. (4) (Formerly numbered 197D.) Lecture, four hours. Survey of experiences of Latinas/Latinos with U.S. legal system. Examination of Latinas’ approach to legal issues as they impact social change in the Americas. Letter grading.

M185. Whose Monument Where: Course on Public Art. (Same as Art M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended requisite: course M186A. Enforced corequisite: M186BL. Examination of public monuments in the U.S. as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is the “public space” at end of the 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

M186A. Beyond the Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Art M185A and World Arts and Cultures M126A) Studio/lecture, six 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 a community. Students research, design, and work with community participants. P/NP or letter grading.

M186BL-M186B-M186CL. Beyond the Mexican Mural: Muralism and Community Development. (2-2-2) (Same as Art M186AL-M186BL-M186CL and World Arts and Cultures M126AL-M126BL-M126CL.) Lecture, two hours. Course M186AL is requisite to M186BL, which is requisite to M186CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M186AL. Beginning; M186BL. Intermediate; M186CL. Advanced.

M186B. Beyond the Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art M186B and World Arts and Cultures M126B.) Studio/lecture, six hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community setting. P/NP or letter grading. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.
M186C. Beyond the Mexican Mural: Advanced Muralism and Community Development. (4) (Same as M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and 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. Program-sponsored experimental or temporary courses such as those taught by visiting faculty. May be repeated for credit. P/NP or letter 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 members to present reports, discuss research methodologies, share findings, and provide feedback on each other’s work. Culminates in public “summit” of Chicana/Chicano student research at which students expected to present polished position papers on their research. P/NP grading.


192. Undergraduate Practicum in Chicana and Chicano Studies. (4) Seminar, four hours. Requisite: course 10A or 10B. 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 member in small group settings or one-on-one setting. May not be applied toward departmental major or minor elective requirements. P/NP or letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (1) Seminar, one hour. Designed for undergraduate students who are part of research group. Discussion of current literature in field or of research of faculty members or students. Use of specific research method on selected topic. 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 of faculty members or students. Use of specific research method on selected topic. May be repeated for credit with topic change. P/NP grading.

195. Community Internship in Chicana and Chicano Studies. (1 to 3) Internship, one to three hours. Entry-level research apprenticeship for upper division Chicana and Chicano Studies majors and minors to work in supervised setting in community agency or organization. Final research project required. P/NP or letter grading.

196. Research Apprenticeship in Chicana and Chicano Studies. (2 to 4) Tutorial, three hours. Requisite: course 10A or 10B. Limited to juniors/seniors. Entry-level research apprenticeship for upper division Chicana and Chicano Studies majors and minors to work in supervised setting in community agency or organization. Final research project required. P/NP or letter grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4) ( Formerly numbered 199.) Tutorial, four hours. Requisite: courses 10A, 10B. 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 a maximum of 8 units. Individual contract required. P/NP or letter grading.


199. Directed Research or Senior Project in Chicana and Chicano Studies. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.

CIVIL AND ENVIRONMENTAL ENGINEERING

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Scope and Objectives

The civil and environmental engineering programs at UCLA include structural engineering, structural mechanics, geotechnical engineering, earthquake engineering, hydrology and water resources engineering, and environmental engineering.

The ABET-accredited civil engineering curriculum leads to a B.S. in Civil Engineering, a broad-based education in structural engineering, geotechnical engineering, hydrology and water resources engineering, and environmental engineering. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study.

At the graduate level, M.S. and Ph.D. degree programs are offered in the areas of structures (including structural/earthquake engineering and structural mechanics), geotechnical engineering, hydrology and water resources engineering, and environmental engineering. 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 Program Objectives

The objectives of the ABET-accredited civil engineering curriculum at UCLA are to (1) provide graduates with a solid foundation in basic mathematics, science, and humanities, as well as fundamental knowledge of relevant engineering principles, (2) provide students with the capability for critical thinking, engineering reasoning, problem solving, experimentation, and teamwork, (3) prepare graduates for advanced study and/or professional employment within a wide array of industries or governmental agencies, (4) produce graduates who understand ethical issues associated with their engineering practice.
Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Environmental Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Civil Engineering.

Civil and Environmental Engineering

Lower Division Courses
1. Introduction to Civil Engineering. (2) Lecture, two hours. Introduction to scope of civil engineering profession, including earthquake, environmental, geotechnical, structural, transportation, and water resources engineering. P/NP grading.
2. Geotechnical Engineering 120, 121, 130, 135A, 150, 151, 153; two courses involving a major design project selected from Civil and Environmental Engineering 123, 135L, 144, 147, 157B, 157C, 157L; Civil and Environmental Engineering 110 and Mechanical and Aerospace Engineering 182A
3. Twenty-four elective units, to be selected from the courses listed below, which must include 8 units of laboratory in at least two major field areas and at least 12 units of design:
   - Engineering Mechanics: Civil and Environmental Engineering 130L, Mechanical and Aerospace Engineering 166C, 168
   - Geotechnical Engineering: Civil and Environmental Engineering 135B, 135C, 135L, 137, 137L, 141, 142, 142L, 143, 144, 147
   - Systems Analysis: Civil and Environmental Engineering 106A

Upper Division Courses
1. Statics. (2) Lecture, two hours; outside study, four hours. Requisites: Mathematics 31B, Physics 1B. Introduction to equilibrium principles for engineered systems. Study of internal forces and moments in beams, including relationships for shear, axial load, and moment diagrams. Introduction to support conditions and geometric properties of structural members. Letter grading.
4. Introduction to Probability and Statistics for Engineers. (4) Formerly numbered 160.) Lecture, four hours; outside study, eight hours. Requisites: course 15, Mathematics 32A, 33A. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on how these concepts are used in experimental design and sampling, data analysis, risk and reliability analysis, and project design under uncertainty. Topics include basic probability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression, hypothesis testing, and Bayesian concepts. Letter grading.

120. Principles of Soil Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Soil as a foundation for structures and as a material of construction. Soil formation, classification, physical and mechanical properties, soil compaction, earth pressures, consolidation, and shear strength. Letter grading.
121. Design of Foundations and Earth Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 120. Design methods for foundations and earth structures. Site investigation, including evaluation of soil properties for design. Design of footings and piles, including stability and settlement calculations. Design of slopes and earth retaining structures. Letter grading.
123. Advanced Geotechnical Design. (4) Lecture, four hours; outside study, eight 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 acknowledgements, 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 distribution, Atterberg limits, specific gravity, compaction, expansion index, consolidation, shear strength determination.
130L. Experimental Soil Mechanics. (4) Lecture, two hours; laboratory, eight hours; outside study, three hours. Requisite or corequisite: course 130. Lectures and experiments in limit analysis of various aspects of structures. Elastic and plastic analysis of structural elements in multiaxial stress states. Buckling of columns, plates, and shells. Effects of actual boundary conditions on structural performance. Evaluation of structural fasteners. Letter grading.
135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 15, 108. Introduction to structural analysis; classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy concepts. Letter grading.
135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of truss and frame structures using matrix methods; matrix force methods; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution. Letter grading.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu.
135C. Finite Element Methods. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 130, 135B. Direct approach for truss analysis, strong form and weak form, approximation functions for finite element methods, weighted residual methods, Ritz method, variational method, convergence criteria and rate of convergence, natural coordinates and shape functions, and parametric finite elements, finite element formulation of multidimensional heat flow and elasticity; numerical integration and approximation properties, finite element formulation of beam. Letter grading.


137. Elementary Structural Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135B. Basic structural dynamics concerning students. Elastic, free, forced vibration, and earthquake response spectral analysis for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: course or corequisite: course 137. Calibration of instrumentation for dynamic measurements. Determination of natural frequencies and damping factors from free vibrations. Determination of natural frequencies, mode shapes, and damping factors from forced vibrations. Dynamic similarity. Letter grading.

141. Steel Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Introduction to building codes. Fundamentals of load and resistance factor design of steel elements. Design of tension and compression members. Design of beams and beam columns. Simple connection design. Introduction to computer modeling methods and design process. Letter grading.


142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: courses 135B, 142. Limited enrollment. Design considerations used for reinforced concrete beams, columns, slabs, and joints evaluated using analysis and experiments. Links between theory, building codes, and experimental results. Students demonstrate accuracy and limitations of calculation procedures used in design of reinforced concrete structures. Development of skills for written and oral presentations. Letter grading.

143. Design of Prestressed Concrete Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135, 142. Prestressing and post-tensioning techniques. Properties of concrete and prestressing steels. Design considerations: anchorage/bonding of cables/wires, flexure analysis by superposition and strength methods, draping of cables, deflection and stiffness, indeterminate structures, limitation of prestressing. Letter grading.


150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mechanical and Aerospace Engineering 103. Precipitation, evaporation and plant transpiration, infiltration and recharge, climatology, stream flow analysis, flood frequency analysis, groundwater, snow hydrology, hydrologic simulation. Letter grading.

151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mechanical and Aerospace Engineering 103. Principles of hydraulics, flow of water in open channels and pressure conduits, reservoirs, and dam and dam-break hydrometric power. Introduction to system analysis and design applied to water resources engineering. Letter grading.


M166. Environmental Microbiology. (4) (Formerly numbered 166.) (Same as Environmental Health Sciences M166.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, six hours. Requisite: course 153. Microbial cell and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and microbes of growth, microbial diversity, microbial fate, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

165L. Environmental Microbiology and Biotechnology Laboratory. (4) Lecture, two hours; discussion, two hours; laboratory, four hours; outside study, four hours. Requisite: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental biotechnol- ogy. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/seniors. General characteristics of transportation systems, including streets and highways, rail, transit, air, and water. Capacity considerations including time-space diagrams and queueing. Computer-aided system design, including horizontal and vertical alignment, cross sections, earthwork, drainage, and pavements. Letter grading.

188. Special Courses in Civil and Environmental Engineering. (4) (Formerly numbered 198.) Lecture, four hours; outside study, eight hours. Special topics in civil engineering for undergraduate students that are taught on experimental or temporary basis, such as courses tentatively offered for visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.
194. Research Group Seminars: Civil and Environmental Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduates 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 Civil and Environmental Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/ seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


223. Earth Retaining Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Basic concepts of theory of earth pressures behind retaining structures, with special application to design of retaining walls, bulkheads, sheet piles, and excavation. Failure mechanisms, factors of safety, effects of soil, and construction techniques on stability of bulkheads and sheet piles. Mechanical stabilization of soils, such as with soil nails and geosynthetics. Letter grading.


225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 120, 137. Analysis of earthquake ground motions, including seismic source modeling, travel path effects, and site response effects. Probabilistic seismic hazard analysis. Soil liquefaction. Sesmic slope stability. Letter grading.

226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Field of geoenvironmental engineering involves application of geotechnical principles to environmental problems. Topics include environmental regulations, waste characterization, geosynthetics, solid waste landfills, subsurface barrier walls, and displacement problems, joint mechanics, effects of embankments, approximations, introduction to finite element analysis. Letter grading.

227. Numerical Methods in Geotechnical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of computer modeling of soils using finite element method, and to constitutive modeling based on elasticity and plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonexistence, and nonuniqueness of solutions. Letter grading.

228L. Advanced Soil Mechanics Laboratory. (2) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisites: courses 120, 121. Laboratory studies covering more advanced aspects of laboratory determination of soil properties and their application to design. Tests to determine permeability, consolidation, and shear strength. Requisites: advanced laboratory techniques. Letter grading.

M230A. Mechanics of Deformable Solids. (4) (Same as Mechanical and Aerospace Engineering M235A.) Lecture, four hours; outside study, eight hours. Requisite: Mechanical and Aerospace Engineering 156A or 166A. Development of fundamental principles and equations of solid mechanics. Cartesian tensors; kinematics of large and small deformations; balance laws of mass, momentum, and energy; constitutive relations of elasticity, thermoelasticity, and viscoelasticity for isotropic and anisotropic solids; solution of selected problems. Letter grading.

M230B. Elasticity. (4) (Formerly numbered M230.) (Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Solution of linear elastostatics problems using special techniques. Field equations of linear elastostatics; uniqueness of solution; Betti/Rayleigh reciprocity relation; solution of two-dimensional problems using stress functions; stress concentration at holes and inclusions; complex variables and transform methods in elasticity; stress singularity at cracks and corners; stresses and strains in composites; three-dimensional problems — Kelvin, Boussinesq, and Green’s functions, boundary integral equation method. Letter grading.

232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156B. Small and large deformation theories of thin plates; energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylindrical and spherical shells, including bending. Letter grading.


234. Advanced Topics in Structural Mechanics. (4) Lecture, four hours; outside study, eight hours. Letter grading. Limited to graduate engineering students. Current topics in composite materials, computational methods, finite element analysis, structural synthesis, nonlinear mechanics, and structural mechanics in general. 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, Maxwele and Saint-Venant principles; 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 130, 235A. Direct energy formulations for deformable systems; solution methods for linear equations; analysis of structural systems with one-dimensional elements; introduction to variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.


243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; outside study, eight hours. Requisite: course 142. Advanced topics on design of reinforced concrete structures, including stress-strain relationships for plain and confined concrete, moment-curvature analysis of sections, and design for shear. Design of slender and low-rise walls, as well as design of beam-column joints. Introduction to displacement-based design and applications of strut-and-tie models. Letter grading.

243B. Response and Design of Reinforced Concrete Structural Systems. (4) Lecture, four hours; 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 design, use of prescriptive versus performance-based design methodologies, and application of elastic and inelastic analysis techniques for new and existing construction. Letter grading.

244. Structural Loads and Safety for Civil Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 141 or 142 or 143 or 144. Modeling of structures and structural mechanics; structural safety analysis; and calculation of capacity reduction factors. Letter grading.


249. Selected Topics in Structural Engineering and Mechanics. (2) Lecture, two hours; outside study, six hours. Review of recent research and developments in structural engineering and mechanics. Structural analysis, finite elements, structural stability, dynamics of structures, structural design, earthquake engineering, ground motion, elasticity, plasticity, structural mechanics, mechanics of composites, and constitutive modeling. 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 internship of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt processes. Introduction to rainfall-runoff modeling, floods, and policy issues involved. Letter grading.

250B. Groundwater Hydrology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150. Hydrology of infiltration processes and interactions due to idealizations. Letter grading.

250D. Water Resources Systems Engineering. (4) Formerly numbered 251.) 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 multi-objective 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, 251C. Introduction to hydrologic modeling concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

251B. Land Surface Remote Sensing and Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250A. Introduction to basic concepts of remote sensing, how these measurements are related to hydrologically relevant parameters like topography, soil moisture, snow properties, vegetation, and precipitation, and introduction to basic concepts of estimation theory (weighted least squares, maximum likelihood, Bayesian estimation) for purposes of hydrologic data assimilation. Letter grading.


252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; outside study, eight hours. Requisite: 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.


254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; outside study, eight hours. Requisite: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural fresh/marine surface waters and in water treatment. Processes include acid-base chemistry and acidity (carbonate system), complexation, precipitation/dissolution, adsorption oxidation/reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular filtrations, sedimentation, carbon adsorption, gas transfer, disinfection, oxidation, and membrane processes. Letter grading.

255B. Biological 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-film processes, aerobic and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

258A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Applications of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, electro dialysis, and ion exchange technologies from both practical and theoretical standpoints. Letter grading.

259A. Selected Topics in Environmental Engineering. (2 to 4) Lecture, two hours; outside study, four 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 resources development. May be taken for a 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, multiobjective water resources planning, and optimization of water resource systems. Topics may vary from term to term. Letter grading.

M262A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric and Oceanic Sciences M203A.) Lecture, three hours. Requisite for undergraduates: Chemistry 20B. Principles of chemical kinetics, thermodynamics, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

M262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric and Oceanic Sciences M224B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and air pollution potential; meteorological aspects 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 department) or letter grading.

263A. Physics of Environmental Transport. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; small-scale dispersion and mixing; effect of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport at Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of 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.

265B. Contaminant Transport in Soils and Groundwater. (4) Lecture, four hours; computer applications, two hours; outside study, six hours. Requisites: courses 250B, 265A. Principles of mass transfer as they apply in soil and groundwater, independent estimation of transport model parameters; remediation of hazardous waste sites. Letter grading.

266. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 153, 264A. Environmental biotechnology — concept and potential, biotechnology of pollutant control, bioremediation, biomass conversion, composting, biogas and bioethanol production. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

297. Seminar: Current Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Lectures, discussions, and student presentations and project on 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. Seminar may be arranged 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 the University. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation 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. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of M.S. Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Supervised independent research for M.S. candidates, including thesis prospectus. 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.

Scope and Objectives

The general objective of the Classics Department is to provide a thorough knowledge of the Greek and Roman languages and culture. To this end, it offers elementary and advanced courses in the languages, the reading and analysis of Greek and Roman authors, the history of Greek and Roman literature, classical art, archaeology, linguistics, mythology, philosophy, and religion.

Bachelor of Arts degrees are offered in Classical Civilization, in Greek, in Latin, and in Greek and Latin. Graduate degrees include the Master of Arts in Classics (Greek and Latin), Greek, and Latin, and the Ph.D. in Classics.

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.

Classical Civilization B.A.

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, and one course from 30, 40W, 41W, 42, 51A, 51B.

Transfer Students

Transfer applicants to the Classical Civilization major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Ro-
man 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) Greek 3 or Latin 3; (2) two upper division courses in Greek or Roman history (History 112A through 112E, 113A, 113B, 114A, 114B, 114C, 115); (3) two upper division courses in classical art or archaeology (Classics C151E, 152, M153A through M153K); (4) seven 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; (5) Classics 191. All other courses in the 190 series may be substituted only by petition.

Greek B.A.
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, or equivalent.

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) Eight 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 112E, 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) Classics 191.

Latin B.A.
Preparation for the Major
Required: Classics 10, 20; Latin 1, 2, 3, or equivalent.

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) Ten upper division Greek and/or Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110; Greek and/or Latin 197 and 199 may be applied only by petition; (2) three upper division courses in classical civilization and/or ancient history (History 112A through 112E, 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) Classics 191.

Latin and Greek B.A.
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, or equivalent.

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) Eight 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 112E, 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) 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 their 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 a grade 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 a grade 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 historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

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.

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 16 upper division units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program. All minor courses must be taken for a letter grade, with an overall grade-point average of
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.) and Doctor of Philosophy (Ph.D.) degrees in Classics.

Classics

Lower Division Courses

10. Discovering the 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 the Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Roman life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

30. Classical Mythology. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 40. Exploration in detail and from variety of critical perspectives 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. Not open for credit to students with credit for former course 41. Exploration in detail and from variety of critical perspectives a carefully selected set of literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and the Ancient World. (5) Lecture/ screenings, five hours; discussion, 75 minutes. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture; focus at discretion of instructor. P/NP or letter grading.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of a 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, 75 minutes. Survey of a major period, theme, or medium of Roman art and archaeology at discretion of instructor. 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 a specific term. P/NP or letter grading.

Upper Division Courses

M121. History of Political Thought: Ancient and Medieval Political Theory from Plato to Machiavel- li. (4) (Same as Political Science M111A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration and critical analysis of major political philosophers and schools from Plato to Machiavelli. P/NP or letter grading.

M124. Modern Receptions of Ancient Political Thought. (4) (Same as Political Science M119A.) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

M125. Invention of Democracy. (5) (Same as Political Science M112B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece. Political form grounded on equality before law, citizenship, and freedom, it came into existence as a struggle by a “demos,” the people, aware of its excellence and proud of its power, “kratos.” It became only regime capable of including all members of community while disregarding wealth, status, and diverging interests. Examination of history and theory of ancient democracy. P/NP or letter grading.

140. Topics in History of Greek Literature. (4) Lecture, three hours. Requisite: course 10 or 40W. Investigation of a specific issue in the understanding of Greek literature, such as definition of a genre or evaluation of a particular author. May be repeated for credit with topic change. P/NP or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requisite: course 20 or 41W. Investigation of a specific issue in the interpretation of Latin literature, such as definition of a genre or evaluation of a particular author. May be repeated for credit with topic change. P/NP or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W. Homer’s Iliad and Odyssey, Vergil’s Aeneid, and Ovid’s Metamorphoses, studied in translation. P/NP or letter grading.

143A. Ancient Tragedy. (4) Formerly numbered 143.) Lecture, three hours. Requisite: course 10 or 40W. Survey of tragedy from 5th-century Athens through later antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. 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 a 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 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 the texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requisite: one course from M145A. Philosophy 1, 100A, M101B, M102. Study of some major texts in Greek philosophy of the 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: one philosophy course. Study of selected topics in early and middle dialogues of Plato.

M146B. Plato — Later Dialogues. (4) (Same as Philosophy M101B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato.

M147. Aristotle. (4) (Same as Philosophy M102.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle.

150A. Female in Greek Literature and Culture. (4) Lecture, three hours. Requisite: course 10. Interdisciplinary study of concept of female in Greek literature and culture. P/NP or letter grading.


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 the 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.

152. The Ancient City. (4) Lecture, three to four hours. Requisite: course 10 or 20 or History 1A. Study of urban planning in the ancient world, with particular attention to cities of classical Greece and Rome, but with consideration also to comparable developments in the ancient Near and Far East. Examination of questions of architectural space and organization, of site, design, and function of major municipal areas and buildings, and of provision of public amenities by detailed reference to significant archaeological sites and contemporary sources. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M153A. Minoan Art and Archaeology. (4) (Same as Art History M102A.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture in Minoan Crete from ca. 3000 to 1000 B.C. P/NP or letter grading.

M153B. Mycenaean Art and Archaeology. (4) (Same as Art History M102B.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture in Mycenaean Greece from ca. 2000 to 1000 B.C. P/NP or letter grading.

M153C. Archaic Greek Art and Archaeology. (4) (Same as Art History M102C.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from approximately 800 through 490 B.C. P/NP or letter grading.

M153D. Classical Greek Art and Archaeology. (4) (Same as Art History M102D.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from approximately 490 through 350 B.C. P/NP or letter grading.

M153E. Hellenistic Greek Art and Archaeology. (4) (Same as Art History M102E.) Lecture, three hours. Requisite: course 10 or Art History 50. Study of development of art and architecture of Greek world from middle of the 4th century B.C. including transmittal of Greek art forms to the Romans. P/NP or letter grading.

M153F. Etruscan Art. (4) (Same as Art History M102F.) Lecture, three hours. Requisite: course 20 or Art History 50. Arts of Italic peninsula from ca. 1000 B.C. to end of the Roman Republic. P/NP or letter grading.

M153G. Roman Art and Archaeology. (4) (Same as Art History M102G.) Lecture, three hours. Requisite: course 20 or Art History 50. Art and architecture of Rome and its Empire from ca. 300 B.C. to A.D. 300. P/NP or letter grading.

M153H. Late Roman Art. (4) (Same as Art History M102H.) Lecture, three hours. Requisite: course M153G, Art History 50. Art of Roman Empire from the 2nd through 4th century (A.D.). P/NP or letter grading.


162. Classical Myth in Literature. (4) Use of myth in principal authors and genres of Greek and Roman literature, with examples of its influence in later literature.


165. Ancient Athletics. (4) Requisite: course 10 or History 1A. Study of ancient Greek and Roman athletic associations and connections with religion, politics, literature, and art.

166A. Greek Religion. (4) Requisite: course 10. Study of the religion of the ancient Greeks.


167. Greek and Roman Magic. (4) Lecture, three hours; discussion, one hour. Requisite: course 10 or 20. Study of beliefs about supernatural phenomena in the ancient world, including witches, ghosts, vampires, and magic spells, attested in literature and archaeological sources. P/NP or letter grading.

168. Comparative Mythology. (4) Lecture, three hours. Requisite: course 30. Religious, mythological, and/or historical traditions of Greece and Rome compared with each other and with other traditions worldwide. P/NP or letter grading.

170C. Power and Imagination in Byzantium. (4) (Formerly numbered M170.) (Same as History M116C.) Lecture, three hours; discussion, one hour (when scheduled). Requisites: History 116A, 116B. Designed for juniors/seniors. Study of relations of authority and intelligensia in highly centralized Byzantine Empire. Topics include criticism of emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

180. Introduction to Classical Linguistics. (4) Lecture, three hours. Requisite: course 3 or Latin 3. Linguistic approach to Greek and Latin, including Indo-European background, etymology, pronunciation, alphabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. P/NP or letter grading.

185. Origins and Nature of English Vocabulary. (5) (Formerly numbered 55.) Lecture, three hours. Origins and nature of English vocabulary, from Proto-Indo-European prehistoric to current slang. Topics include the Greek and Latin component in English (including technical terminology), the alphabet and English spelling, semantic change and word formation, vocabulary in literature and film. 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 tutorial research in seminar setting with one or more faculty members as advisor. 2 to 3 hours weekly. Enrollment limited to 25. May be repeated for credit with topic change. S/U or letter grading.

191. Advanced Variable Topics Seminars: Classics. (5) (Formerly numbered 197.) Seminar, three hours. Limited to juniors/seniors. Topical research seminar on important themes, periods, genres of ancient Greek and Roman world that take innovative interdisciplinary approach to questions old and new. Readings, discussions, oral presentations, and final research paper. Letter grading.


197. Individual Studies in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual independent study, with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.


199. Directed Research in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of a faculty member. Cumulating paper or project required. Individual contract required. 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.

M220A. Interfaces: Transmission of Roman Literature. (4) (Same as History CM220A.) Lecture, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and Renaissance to understand processes by which Latin literature has been preserved. S/U or letter grading.


244. Textual Criticism: Studies in Preparation of a Critical Edition of Greek and/or Latin Texts. (4) Seminar, three hours. Different steps required in preparation of a critical edition of an ancient text: locating manuscripts; collation; establishing the stemma; selecting the right reading on basis of knowledge of the context, of the language of the author, and of the sources; emendations; formulation of apparatus criticus and apparatus fontium.

245. Computing and Classics. (4) Introduction to processing and analysis of digitized texts of classical authors for purposes of literary history and criticism.

246. Greek and Latin Meter. (4) Comprehensive study of meter as it functions in classical poetry.

250. Topics in Greek and Latin Literature. (2 or 4) Lecture, three hours. Investigation of specific literary genres or historical issues in history of classical literature. May be repeated for credit with topic change. S/U or letter grading.

251A. Seminar: Classical Archaeology — Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

251B. Seminar: Classical Archaeology — Greco-Roman Architecture. (4) Seminar, three hours. S/U or letter grading.

3. Elementary Greek. (5) Lecture, three hours; dis-
cussion, two hours. Enforced requisite: course 2. P/NP or letter grading.
15. Elementary Modern Greek. (12) Lecture, 18 to
19 hours. Eight-week intensive introduction to princi-
ples of speaking, reading, and writing modern (de-
monic) Greek. Offered in summer only. P/NP or letter
16. Intensive First-Year Greek. (12) Lecture, 15
hours. Ten-week intensive introduction to Greek lan-
guage equivalent to courses 1, 2, and 3. Offered in
summer only. P/NP or letter grading.

Upper Division Courses
100. Readings in Greek Prose. (4) Lecture, three to
four hours. Requisite: course 3 or 16. Selections from
Plato and other classical Greek texts, along with
grammar review. P/NP or letter grading.
102. Lyric Poets. (4) Requisite: course 100. Selec-
tions from Archilochus to Bacchylides.
103. Aeschylus. (4) Requisite: course 100.
104. Sophocles. (4) Requisite: course 100.
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.
110. Study of Greek Prose. (4) Requisite: course
100. Work in sight reading and grammatical analysis
of Attic prose texts; writing Attic prose.
111. Herodotus. (4) Requisite: course 100.
112. Thucydides. (4) Requisite: course 100.
115. Xenophon. (4) Lecture, three hours. Requisite:
course 100. Reading of one major work of Xenophon —
the Memorabilia, Cyropaedia, Anabasis, Hellenica,
or Oeconomicus — in Greek. P/NP or letter grading.
121. Plato. (4) Requisite: course 100.
123. Aristotle: Poetics and Rhetoric. (4) Requi-
te: course 100.
130. Readings in the New Testament. (4) Requi-
te: course 3.
131. Theology in Late Greek. (4) Requisite:
course 100. Course topics vary from year to year and include
“Longin
us.” On the Sublime: Marcus Aurelius: Arrian: the
Second Sophistic: Plutarch: later epic: epigram: epis-
togaphi Graeci.
132. Survey of Byzantine Literature. (4) Requisite:
course 100. Readings based on (1) Anthology of Byz-
tantine Prose, ed. Nigel Wilson and (2) Oxford Book of
Medieval and Modern Greek Verse, ed. C.A. Trypanis,
if or unavailable, Poeti bizantini, ed. R. Cantarella.
In
addition, necessary historical and cultural back-
ground provided by readings and lectures.
133. Readings in Byzantine Literature. (4) Requi-
te: course 132. Topics vary from year to year and in-
clude Procopius, Agathias, Michael Psellus, the Alex-
iad of Anna Comnena, and Digenis Akritas.
197. Individual Studies in Greek. (2 to 4) Tutor-
ial, two hours. Limited to juniors/seniors. Individual
intensive study, with scheduled meetings to be arranged
between faculty member and student. Assigned read-
ing and tangible evidence of mastery of subject mat-
ter required. Individual contract required. P/NP or letter
grading.
199. Directed Research in Greek. (2 to 4) Tutori-
ral, two hours. Limited to juniors/seniors. Supervised indi-
vidual research or investigation under guidance of
faculty mentor. Culminating paper or project required.
Individual contract required. P/NP or letter grading.
Upper Division Courses


105A. Beginning Vergil: Selections from Aeneid I-VI. (4) Lecture, three hours. Requisite: course 100. Reading of one or more books from first half of the Aeneid designed especially for students with only limited experience in reading Latin poetry.

105B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil's Eclogues, Georgics, and/or second half of the Aeneid. May be repeated for credit with change in readings. P/NP or letter grading.


108. Roman Elegy. (4) Requisite: course 100. Selections from Petronius' Satyricon and Apuleius' Metamorphoses and development of the genre of prose novel in antiquity. May be repeated for credit with change in author and text.


111. Livy. (4) Requisite: course 100.

112. Tacitus. (4) Requisite: course 100.


116. Roman Novel. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of Petronius' Satyricon or Apuleius' Metamorphoses and development of the genre of prose novel in antiquity. May be repeated for credit with change in author and text.


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 biog- raphy, 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 poet(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.

120. The Vulgata. (4) Lecture, three hours. Requisite: course 3. Reading of selected chapters of St. Jerome's translation of the Bible, with emphasis on unclassical features of the text.

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.

130. Introduction to Medieval Latin. (4) Requisite: course 3. Reading of easy prose texts, with emphasis on basic language training.

Graduate Courses

200A-200B. History of Latin Literature (6-6). Lectures on history of Latin literature, supplemented on the part of the student by independent reading of Latin texts in the original. Each course may be taken independently for credit.

201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus), with attention to the 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) Detailed consideration of the work of Catullus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

203B. Propertius. (2 or 4) Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergil's Aeneid. (4 or 4) Each course is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergil's Bucolics. (2 or 4) S/U (2-unit course) or letter (4-unit course) grading.

205B. Seminar: Vergil's Georgics. (2 or 4) Course 205A is not requisite to 205B. Close reading of Vergil's text; careful evaluation of influential criticism on the poem, much of it recent; examination of the work's place within the tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) 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) Detailed study of an individual satirist, with attention to his position in development of the sattirical genre in Roman literature. Choice of author varies from year to year. Close study of the text, of characteristics of the writer as a social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herennium, Cicero’s De Oratore, Seneca’s Controversiae or Suasoriae, Quintilian’s Institution), with attention to its place in rhetorical tradition. May be repeated 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) S/U (2-unit course) or letter (4-unit course) grading.

221B. Cicero: De Natura Deorum. (2 or 4) 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) 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 the younger Seneca. May be repeated with topic change. S/U (2-unit course) or letter (4-unit course) grading.

229. Sight Translation. (2 or 4) Discussion, three hours. Designed for graduate students. Practice in translation of previously unseen texts from a variety of authors and genres. Topics include peculiarities of style and vocabulary of the distinct genres. May be repeated for credit. S/U (2-unit course) or letter (4-unit course) grading.

231A-231B. Seminars: Medieval Latin. (2 or 4 each) Preparation: at least one upper division Latin course. Course 231A is not requisite to 231B. Studies in various areas of the 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 the 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 works of one or several poets who flourished between the death of Ovid and fall of the Roman Empire. May be repeated with change in author.

236. Late Latin Prose. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of works of one or several prose authors who flourished between the death of Tacitus and fall of the Roman Empire. May be repeated with change in author.

240. History of the Latin Language. (2 or 4) Lecture, three hours. Development of Latin from the earliest monuments until its emergence in the Romance languages. S/U or letter grading.


245. Neo-Latin. (2 or 4) Seminar, three hours. Preparation: at least two upper division Latin courses. Prerequisite: course 100. Survey of texts by one or more authors from Renaissance to the present, written on related topics. S/U or letter grading.


256. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

587. Study for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Related Courses

Ancient Near East (Near Eastern Languages)

170. Introduction to Biblical Studies

222. Semitic Background of New Testament

Art History

223. Classical Art

History

112A-112B-112C. History of Ancient Mediterranean World

113A-113B. History of Ancient Greece

114A-114B-114C. History of Rome

116A-116B. Byzantine History

119A-119B. Medieval Europe

215A-215B. Seminars: Ancient History

216A-216B. Seminars: Byzantine History

222A-222B. Seminars: Medieval Intellectual History and History of Science

Indo-European Studies

132. European Archaeology: Bronze Age

M150. Introduction to Indo-European Linguistics

210. Indo-European Linguistics: Advanced Course II

280A-280B. Seminars: Indo-European Linguistics

COMMUNICATION STUDIES

Interdepartmental Program
College of Letters and Sciences

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Neil M. Malamuth, Ph.D., Chair

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Scope and Objectives

The major in Communication Studies is an interdisciplinary program 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. Emphasizing critical and empirical approaches, the major draws its resources from the social sciences, humanities, and fine arts. Two areas of focus are offered: the concentration in mass communication centers on formal and institutional communication systems and the macro-cosmic social contexts in which they function; the concentration in interpersonal communication centers on face-to-face communicative interaction in the small group environment.

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 15 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 to regularly enrolled UCLA students during Spring Quarter in the program office.

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 Lower Division Courses: Communication Studies 10, Speech 1, one course selected from Anthropology 33, Communication Studies M40 or M70, Linguistics 1, or Sociology 24, one statistics course from Sociology M18, Statistics 10, or 11. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1, and Economics 1 or 2 or 5 or Political Science 30.

Transfer Students

Transfer applicants to the Communication Studies major with 90 or more units must complete at least two 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 macroeconomics 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

Required Core Courses: Communication Studies 100, 101, 150.

Interpersonal Communication Concentration

Each course may be applied toward only one requirement.

Required: Eleven upper division courses as follows:

1. Eight interpersonal communication courses, six of which must be in communication studies, selected from Anthropology...
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

10. **Introduction to Communication Studies.** (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.

15A. **Production of Multimedia Software.** (4) Description of what goes into a multimedia software program; discussion of different platforms (PC, Mac, network computers, servers, and transmitters) and distribution means (CD-ROM, DVD-ROM, Internet). Content organization and layout, data structure and management; and overall planning for prototype and final product. P/NP or letter grading.

M40. **Language and Gender: Introduction to Gender and Stereotypes in English, Japanese, and Russian.** (5) (Same as Japanese M40 and Russian M40.) Lecture, three hours; discussion, one hour. Introduction to language from sociological perspective of gender. Use of research and examples in English, Japanese, and Russian to explore nature of male and female "genderlects" and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, language acquisition. P/NP or letter grading.

M70. **Origin of Language.** (5) (Same as German M70 and Indo-European Studies M70.) Lecture, three hours; discussion, one hour. Introduction to language from sociological perspective of gender. Use of research and examples in English, Japanese, and Russian to explore nature of male and female "genderlects" and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, language acquisition. P/NP or letter grading.

88. **Sophomore Seminars: Communication Studies.** (4) Formerly numbered 88A-88Z. Seminar, four hours. Relationship between language and human body; interpersonal and intrapersonal communication; study of theoretical models explicating the process and constituents of the communicative act. Letter grading.

### Upper Division Courses

100. **Communication Theory.** (4) Requisite: course 10 or Linguistics 1 or Sociology 1 or Psychology 10. Analysis of fundamental nature of human communication; its physical, linguistic, psychological, and sociological bases. Study of theoretical models explicating the process and constituents of the communicative act.

101. **Freedom of Communication.** (4) Principles and types of group communication. Analysis of differences in the stages of communication and conflict in couples and families and relationship of these processes to individual psychopathology, marital discord, and family disorganization (e.g., separation and divorce). P/NP or 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. **Principles and Types of Group Communication.** (4) Requisite: course 100. Analysis of types, principles, and techniques of small group communication. Particular emphasis on organization of and participation in problem-solving discussion.

121. **Talk and Mass Communication.** (4) Lecture, three hours. Exploration of issues related to management of conflict between major areas of work, with focus on historical background, perceptions, gaps, and political context. Communication approaches based on nonviolence and management of moral conflict offered as alternatives to clash of civilizations. Letter grading.

M123. **Talk and the Body.** (4) (Same as Anthropology M148 and Applied Linguistics and TESL M161.) Seminar, four hours. Relationship between language and human body; roles of human body in communication, with focus on interactional encounters between public and private speakers, and political speech; different forms of communication ethics based on nonviolence and management of moral conflict offered as alternatives to clash of civilizations. Letter grading.

M124. **Psychology of Language and Gender.** (4) (Same as Women’s Studies M124.) Lecture, four hours. Examination of current topics at intersection of gender and language. Topics include sex differentiation in language; sex roles in communication; sex differences in language, syntax, phonology, and nonverbal behavior; development of sex-differentiated language in children; “women’s” and “men’s” language in various racial/ethnic/class/sexual preference groups; and conversational interaction. Letter grading.

M125. **Talk and Social Institutions.** (4) (Same as Sociology CM125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in a 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) (Formerly numbered M125.) Lecture, four hours. Limited to studies majors. Examination of current topics in interpersonal communication from perspective of evolutionary psychology and biology. Topics include deception, miscommunication between sexes, and coevolution of signaler and receiver adaptations. Letter grading.


128. Entertainment as Implicit Pedagogy. (4) Lecture, three hours. Entertainment is significant component of both interpersonal and mass communication. Examination of evolutionary history, cognitive mechanisms, and social dimensions of play and entertainment, as well as their possible pedagogical effects. Letter grading.

129. Gaming Mind. (4) Lecture, three hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technically sophisticated, with focus on what people learn from games, how they learn it, and whether learning is potentially applied to real life. Letter grading.

130. Cultural Factors in Interpersonal Communication. (4) Requisite: course 100. Study of cultural factors as they affect the quality and processes of interpersonal communication; exercises in participation, analysis, and criticism of interpersonal and intercultural communications in the small group configuration.

131. Culture versus Media? (4) Lecture, three hours. Interpretation of meaning of cultural texts, analysis of representation of particular groups, and consideration of how audiences provide their own 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.

132. Multicultural Television. (4) Lecture, four hours. Critical evaluation of television programming and scholarly research of new developments in television. Application of research findings by students to real-world contexts in course discussions, papers, and presentations. Letter grading.

133. Decoding Media Strategies. (4) Lecture, three hours. Today's mass media are thriving business, central political institution, and an important component of democracy. How do these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of advertisements, mass culture, practice of propaganda, and changing patterns of media ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

M135. Narrative in Mass Communication. (6) (Same as Honors Collegium M135.) Seminar, four hours. Examination of narrative as a primary function of mass media, beginning with social, psychological, cultural, and rhetorical functions of storytelling and basic elements of narrative in the larger context of human and social interaction. Application these to study of film, television, and print media. P/NP or letter grading.


140. Theory of Persuasive Communication. (4) Lecture, four hours. Dynamics of communication designed to influence human conduct; analysis of structure of persuasive text and integration of theoretical materials from relevant disciplines of humanities and social sciences. 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.

147. Sociology of Mass Communication. (4) (Same as Sociology M176.) Lecture, four hours; discussion, one hour. Examination of relation between mass communication and social organization. Topics include history and organization of modern mass media, social forces that shape production of mass media, and role of entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

148. Marketing, Advertising, and Human Nature. (5) (Formerly numbered M148B.) Seminar, four hours. Marketing, advertising, and consumer behavior from viewpoint of evolutionary psychology and biology, including analysis of motives and patterns of consumption, current marketing strategies, and marketing myths, and content and effectiveness of advertising. Letter grading.

149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Women's Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication Studies and Women's Studies majors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and misrepresented in the media. Emphasis on employment of practical applications of communication and feminist theories for understanding ideological nature of stereotypes and politics of representation through user presentation, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.


151. Computer-Mediated Communication. (4) Lecture, four hours. Examination of how computer technology, particularly Internet, has influenced patterns of human communication. History and distinctiveness of computer-mediated communication (CMC) and its influence on modern economic, political, and social interaction. Letter grading.

152. Analysis of Communication Effects. (4) Requisite: course 100. Survey of experimental and field research on effects, research on receptions, audience awareness, source, message, and environmental factors affecting audience response.

M153. The Media and Aggression against Women. (4) (Same as Women's Studies M153.) Lecture, four hours; discussion, one hour. Limitation on enrollment to mass media and men's aggression against women. Particular consideration of sexual aggression, pornography, and characteristics of aggressive men. Analysis of interaction between "nature and nurture." 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 co-opted to perform communicative functions such as gossip, dating, news, entertainment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.


158. Evolution of Communication Technology. (4) Lecture, four hours. Study of role assigned to technology in theories of communication. Examination of current information age and advance 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 Women's Studies M159.) Lecture, three hours. Discussion of theories and social implications of pornography as basis for its evolution and its effects. Use of topic to illustrate value of evolutionary theory to social sciences generally. Letter grading.

160. Political Communication. (4) Lecture, four hours; discussion, one hour. Study of nature and function of communication in the political sphere; analysis of contemporary and historical communications within established political institutions; state papers; deliberate choices; election campaigns. Letter grading.

161. Electoral Politics: Mass Media and Elections. (4) (Same as Political Science M141D.) Lecture, four hours; 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. Letter grading.

162. Presidential Communication. (4) Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and channels as well as how presidential campaign communication has evolved over time and implications for how presidents govern. Letter grading.

165. Agitational Communication. (4) Lecture, four hours; discussion, one hour (when scheduled). Theory and practice of media and agitation. Communication in agitational frameworks, relation to established political institutions; state papers; deliberate choices; campaign communication. Letter grading.

166. Communicative Dynamics in Film and Television Production. (4) Lecture, four hours. Identification of how motivation and creativity interact with business interest, research, and policies in producing entertainment. Fourteen-hour minimum. Letter grading.


171. Seminar: Theories of Freedom of Speech and Press. (4) Requisite: course 101. Exploration of relationship between free speech and press and values of liberty, self-realization, self-governance, truth, dignity, respect, justice, equality, association, and community. Study of the significance of these values in contemporary society with issues such as civil rights, obscenity, defamation, access to media, and control of commercial, corporate, and government speech.
173. Communicating Complex Policy. (4) Lecture, three hours. Various media offer different comparative advantages/disadvantages for transmission of messages. Specific kinds of print, video, and new media offer opportunities and problems when content is complex and/or scholarly. Development of media-complexity typologies. Exploration of scholarly works of famed philosophers, sociologists, and communication theorists. Letter grading.

174. Trial by Jury: Communication Perspective. (4) Lecture, four hours. Study of American jury trial system as a communication process. Examination of impact of courtroom television, paid jury consultants, and celebrity prosecutions on system's communication dynamics and search for truth. Review of communication research and empirical data in effort to decide whether American jury system places too much emphasis on winning and not enough on seeking truth. Letter grading.

175. Criticism and the Public Arts. (4) Lecture, four hours; discussion, one hour (when scheduled). Introduction to methods and problems of criticism in the public arts. Study of several types of critical methods: formalistic, analogue, pragmatic, and aesthetic criticism. Topics include definition of art and criticism, aesthetic media, genre and resources of film, television, theater, and public discourse, varieties of critical method, problems of critical judgment. Letter grading.

176. Visual Communication and Social Advocacy. (4) Lecture, three 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 genres of visual communication as features of modern mass media. Letter grading.

177. Libel and Freedom of Expression. (4) Lecture, four hours. Intensive study of law of defamation and its relationship to the free flow of information in a democracy. Examination of rationale, scope, and effects of libel laws. Topics include application of libel laws to public official, public figure, and private plaintiffs and media and nonmedia defendants; group libel, privileged libel, and libelous fiction. Letter grading.


180. Politics of Censorship. (4) Discussion, two hours; simulation teaching, three hours. Requisite: course 101. Examination of the process and substance of debates over government and private censorship by having students become active participators in a term-long simulated battle over current international issues such as book censorship, pornography, or UNESCO's proposed "New World Information Order."

182. Nonverbal Communication in Architecture. (4) Lecture, four hours. Study of how elements of design and style of various buildings in architectural history send messages to viewers and users of such buildings. Letter grading.


184. Advanced Asia Media Systems: Laboratory. (4) Lecture, three hours; laboratory, one hour. Survey and comparative analysis of news media Web pages of AsianPacific, examined in Social Sciences Computing Laboratory, using media richness, content analysis, and political, cultural, and economic perspective. Letter grading.

185. Field Studies in Communication. (2 to 4) Lecture, two hours. Requisite: course 10. Designed for juniors/seniors. Fieldwork in communication. Students participate in two-hour seminar sessions and spend seven hours in approved community settings each week for each 2 units of credit. May be taken for a maximum of 4 units per term. P/NP grading.

186. Mass Media, Public Opinion, and Foreign Policy. (4) Lecture, four hours. Investigation of various means through which mass media and public opinion influence foreign policy. Development of coherent view of interaction between media, public opinion, and politicians with respect to foreign affairs. Letter grading.


194. Research Group Seminars: Communication Studies. (2) Seminar, two hours. Designed for undergraduates and graduate students who are part of research group. Discussion of research methods and current literature in field of or research of faculty members or students. P/NP grading.

198A–198B. Honors Research in Communication Studies. (4–4) (Formerly numbered 191HA–191HB–191HC.) Tutorial, three hours. Limited to junior/senior majors. Individual contract required. Letter grading. 198A. Requisites: courses 10, 150, Development of comprehensive research project under direct supervision of faculty member. 198B. Requisite: course 198A. Completion of work initiated in course 198A. Presentation of summary of data gathered and relevant progress to supervising faculty member. 198C. Requisite: course 198B. Completion of research developed in courses 198A, 198B. Presentation of honors project to supervising faculty member. 199. Special Studies. (2 to 8) To be arranged with faculty member who directs the study. Limited to seniors. Independent studies for seniors who desire intensive or specialized investigation of selected research topics.
Community Health Sciences

Lower Division Courses

90. Aging Frontier: Public Health Perspective. (4) Lecture, three hours; discussion, one hour. Introduc-
tion to gerontology from public health perspective, emphasizing prevention of illness 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) Formerly numbered 99.) Lecture, four hours. Limited to stu-
dents in Peer Health Counselor Program. Analysis of student health care issues as related to campus
health care delivery system and to health care con-
sumer. Identification of health needs, determination of
appropriate resources, delivery of preventive and self-
care education, and delineation of peer health coun-
selor’s role. P/NP or letter grading.

Upper Division Courses

100. Introduction to Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Devel-
opment of broad appreciation of community, cultural,
developmental, and psychosocial factors as they af-
fect health, health-related behavior, and implications for
public health. Review of theories, models, and mo-
dalities of interventions and policies for health promo-
tion and disease prevention. Letter grading.

130. Nutrition and Health. (4) Lecture, three hours;
laboratory, one hour. Preparation: one biology course,
one chemistry course. Basic and clinical nutrition the-
ory and practice for students in health sciences cur-
cula. P/NP or letter grading.

132. Health, Disease, and Health Services in Latin
America. (4) Lecture, four hours. Introduction to
health, disease, and health services in Latin America,
with emphasis on epidemiology, health administra-
tion, medical anthropology, and nutrition. P/NP or let-
ter grading.

M140. Health Issues for Asian Americans and Pa-
cific Islanders: Myth or Model? (4) (Same as Asian
American Studies M129.) Lecture, three hours; field-
work, one hour. Introductory overview of mental and
physical health issues of Asian Americans and Pacific
Islanders; identification of gaps in health status indi-
cators and barriers to both care delivery and research
for these populations. Letter grading.

179. Life Skills for College Women and Men. (4)
Seminar, four hours. Multidisciplinary exploration of
student development in undergraduate experience
with focus on processes of identity formation and
emotional and social development. Emphasis on vari-
ability associated with gender, race, ethnicity, culture,
and sexual orientation. Testing of “real-life” relevance
to theory and research. P/NP or letter grading.

180. Field Studies in Cancer Control. (4) Former-
ly numbered 195.) Lecture, two hours; discussion,
one hour; fieldwork, four hours. Requisite: Molecular,
Cell, and Developmental Biology 30. Designed for
juniors/seniors. Opportunity for students to become
involved in cancer control through classroom discus-
sion, lectures, service in field, and guided research.
Biology of cancer, its prevention, early detection,
treatment, and rehabilitation. Letter grading.

181. Introduction to Health Promotion Fieldwork.
(4) (Formerly numbered 169A.) Lecture, two hours;
discussion, one hour; laboratory, six hours. Designed
for juniors/seniors. Training and experience in health
promotion and health education in selected ethnic
communities, including participation in supervised
fieldwork at sites throughout Los Angeles. Letter
grading.

Graduate Courses

200. Global Health Problems. (4) Lecture, two
hours; discussion, two hours. Overview of health pro-
file of the world in the 20th century. Global health
problems and methods by which they have been dealt
within the context of the Alma Ata goal of “health for all

M208. Introduction to Demographic Methods. (4)
(Same as Biostatistics M208 and Sociology M213A.)
Lecture, four hours. Preparation: one introductory sta-
tistics course. Introduction to methods of demograph-
ic analysis. Topics include demographic rates, stan-
dardization, decomposition of differences, life tables,
survival analysis, cohort analysis, birth interval analy-
sis, models of population growth, stable populations,
population projection, and demographic data sources.
Letter grading.

210. Community Health Sciences. (4) Lecture,
three hours. Preparation: one social sciences course.
Basic concepts, relationships, and policy issues in the
field of community health, variability in definitions of
health and illness; correlates of health and illness be-
behavior, impact of social and community structure on
health status, major contemporary approaches to
health promotion and health education at community
level. Use of comparative international perspective.
Letter grading.

211A-211B. Program Planning, Research, and
Evaluation in Community Health Sciences. (4)
Lecture, three hours; discussion, one hour; outside
assignments, eight hours. Requisite: course 210.
Course 211A is requisite to 211B. Development, plan-
ning, and administration of public health programs in
community settings. Introduction to a range of research
methods and techniques used in designing and con-
ducting health research, with particular emphasis on
evaluation of community-based public health pro-
grams. Course organized into three modules. Letter
grading.

212. Advanced Social Research Methods in
Health. (4) Lecture, four hours; laboratory, two hours;
outside assignments, eight hours. Requisites: cours-
es 211A, 211B, Biostatistics 100B, 406. Problems of
health survey design and data collection; measure-
ment issues in data analysis and interpretation; use of
analyzing for large-scale survey data using various statistical techniques. Letter grading.
230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rape, incest, and spouse and elder abuse. Presentation of definitions, causes, outcomes, and research on family and sexual violence, as well as response of social service, medical, and criminal justice systems. Letter grading.

231. Maternal and Child Nutrition. (4) Lecture, four hours. Nutrition of mothers, infants, and children in countries at various levels of socioeconomic development; measures for prevention and treatment of protein-calorie malnutrition; relationship between nutrition and mental development; impact of ecological, socioeconomic, and cultural factors on nutrition, nutrition education, and service. Letter grading.

232. Determinants of Health. (4) Same as Health Services M242L. Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.

233. Hunger and Food Insecurity as Public Health Issues. (4) Lecture, three hours. Designed for graduate students. Public health aspects of hunger and food insecurity in historical and international perspectives, including measurement and identification of vulnerability, prevention, and options for relieving acute food shortage. Letter grading.

234. Obesity, Physical Activity, and Nutrition Seminar. (Formerly numbered 234.) (Same as Health Services M255.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction at graduate level to epidemiology, physiology, and current state of preventive and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.


239. Race and Ethnicity as a Concept in Practice and Research. (4) Same as Asian American Studies M239.) Discussion, three hours. Integration of cross-cultural findings in health care with current American (U.S.) health care system paradigms to facilitate designing culturally based public health programs and train culturally competent practitioners. Letter grading.

244. Advanced Seminar: Medical Anthropology. (2 to 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. Essays for written critical analysis and class discussion prepared through key theoretical works. S/U or letter grading.


253. Advanced Topics in Health Services Research: Access to Care. (4) Same as Health Services M253.) Lecture, three hours. Required: courses 210, 270A, and 270B, or Health Services 237A, 237B, and 237C. Doctoral seminar designed to explore health services research regarding access to health care and policies to enhance access. Topics include conceptual frameworks, measurement issues, study designs, analytic approaches, and substantive findings and trends in access and access-related policies. Letter grading.

254. Intentional Disasters: War and Refugees. (2) Lecture, two hours. Recommended requisite: courses 211A, 211B, 295, Epidemiology 100, one survey methods course. Previous international experience strongly encouraged. Overview of intentional disasters, with focus on theoretical and practical issues and consequent population migration. Principal focus on health consequences of these events and strategies to address health issues. Letter grading.
M255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2) Same as Epidemiology M270A. Three hours; discussion, one hour. Recommended for graduate students. Injuries have been leading killer of children in the U.S. for decades. Children have specific risk factors for injuries, many of which are preventable. Presentation of approaches to research and prevention of pediatric injuries. Letter grading.

256. Interdisciplinary Response to Infectious Disease Emergencies: Public Health Perspective. (4) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Medicine, and Nursing during weeks two through five. Letter grading.

257. Program Planning in Community Disaster Preparedness. (4) Lecture, four hours; outside study, eight hours. Requires: courses 211A, 211B, 295. Health education and emergency management principles combined to design, plan, implement, and evaluate comprehensive awareness programs, including needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.


M263. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture, three hours. Designed for graduate students. Use of city of Los Angeles to evaluate social and demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) Same as Anthropology M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132. Bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with a variety of health-seeking behaviors. Letter grading.

265. Images of Aging and Illness. (4) Lecture, three hours. Designed for graduate students. Images of the aged that students hold, images that serve various professional and commercial interests in society, and images the aged themselves use to make sense out of their experiences. Letter grading.

270A-270B. Foundations of Community Health Sciences. (4-4) Lecture, four hours. Requisite: course 210. Course 270A is requisite to 270B. Designed for doctoral students. In-depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.


272. Social Epidemiology. (4) Lecture, two hours; discussion, two hours. Requisite: Epidemiology 100. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other environmental factors associated with general susceptibility to disease and subsequent mortality. Letter 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.


M275. Health and Illness Behavior. (4) (Same as Sociology M249B.) 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.

276. Complementary and Alternative Medicine. (4) (Same as Anthropology M249B.) Lecture, three hours. Requires: course 100 or 210, Health Services 100. Analysis of use and acceptance of complementary and alternative medicine (CAM) by clients and providers. Core beliefs of CAM, relationship of CAM and spirituality, licensure and certification of CAM providers, relationship of CAM and conventional medicine, impact of CAM on client identity. Letter grading.

277. Advanced Community Health Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Before planning the educational components of a health program, one must assess behaviors and factors influencing the health problem. Course develops core skills needed and applied in constructing a community-based educational program. Letter grading.

M278. Work and Health. (4) (Formerly numbered 276.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

M279. Building Stronger Communities for Los Angeles. (4) (Same as Public Policy M273.) Lecture, four hours. Designed for graduate students. Introductory course on family-centered community building (FCCB) to introduce graduate students as well as community practitioners to range of topics, issues, and frameworks to help build stronger, more cohesive, and family-centered communities. Letter grading.

280. Community Health Education and Promotion. (4) Seminar, six hours; discussion, nine hours. Requires: course 210. Current problems and findings in health education and promotion (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master's projects, completed under faculty supervision. Letter grading.

282. Communication in Health Promotion and Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Design, implementation, and evaluation of interpersonal communication strategies for health promotion programs. Equal emphasis on communication theories, models, and empirical research literature and on specific applications in health programs and case studies. Letter grading.

M283. Aging and Health Behavior. (4) Discussion, three hours. Requisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among the aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Discussion, three hours. Designed for graduate students. Examination of how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in disorder and how it is socially constructed. Letter grading.

285. Aging, Health, and Society. (4) Lecture, three hours; discussion, one hour. General introduction to major social issues affecting health of the elderly in America. Leading gerontological theories and major issues that affect the aged, showing how these theories and issues influence health status, health promotion, and illness among the elderly. S/U or letter grading.

286. Doctoral Roundtable in Community Health Sciences. (2 to 4) Seminar, one hour. Designed for departmental doctoral students. Interactive seminar with focus on research process and social mechanisms in science. May be repeated for credit. S/U grading.

M287. Politics of Health Policy. (4) (Same as Health Services M287.) Lecture, three hours; discussion, one hour. Requisite: course 210, or Health Sciences 200A and 200B. Examination of politics of health policy process, influence of political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion; and other factors. Letter grading.

289. Drug Abuse in Pregnancy: Special Focus on Adolescents and Utilizing Secondary Data Sources. (4) Lecture, three hours; clinical placement. Designed for graduate students. Multidisciplinary graduate seminar combining didactic material on substance abuse in pregnancy, participation in ongoing research, and clinical experience in on- and off-campus settings. Medical, social, economic, and legal issues affecting pregnant substance abusers. Letter grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examined in context of their families, communities, and the nation. Exploration of cultural and structural influences on health and lived experiences of these elders. Letter grading.

M291. Health Policy and the Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social forces that shape health policy for the aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Communication and Media Development in Health Promotion/Education. (4) Lecture, three hours; field practice, one hour. Requisite: course 210 or prior social sciences courses. Selected aspects of communications planning, social marketing, mass media, and communications evaluation theory and practice. Letter grading.

293. Social and Behavioral Research in AIDS: Roundtable Discussion. (2 to 4) Discussion, two hours; individual consultation, two hours. Review and discussion of research programs directed toward identification of prevention and intervention strategies for 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; course 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors that influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.

295. Selected Topics in Disaster Relief and Humanitarian Assistance. (2) Lecture, two hours. Designed for graduate students. Overview of broad interdisciplinary issues which necessarily converge in fields of disaster preparedness and humanitarian assistance. Introduction to both theoretical and problem-solving strategies. Letter grading.

296. Advanced Research 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 literature in research specialty of faculty member teaching course. May be repeated for credit. S/U or letter grading.


400. Field Studies in Public Health. (2 or 4) Fieldwork, to be arranged. Field observation and studies in selected communities 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 48-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 public health content 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 massive 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 Epidemiology M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of the cancer epidemic, cancer control goals for the 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, four hours. Requisites: Biostatistics 100A, Epidemiology 100 and/or 200. 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.

M420. Children with Special Health Care Needs: Systems Perspective. (4) (Same as Social Welfare M2901.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices which have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

425. Child Advocacy: Skills for Effective Action. (4) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Use of case method approach involves clinical and project-based discussions and in fieldwork projects about which they update classmates. Highly respected leaders for children in various community share experiences and offer insight. Letter grading.

426. School-Linked Services: Integrated Health, Education, and Social Services for Children in Communities. (4) Seminar, three hours; fieldwork, one hour. Described for graduate students. Examination of school service in context of other dramatic changes, scope of problems facing youth, roles that schools may serve as organizers/delivery sites for comprehensive services, and factors that influence development of appropriate school service models. Letter grading.

427. Reproductive Health in Sub-Saharan Africa. (4) Lecture, four hours. Recommended requisite: course 247. In-depth understanding of reproductive health challenges facing sub-Saharan Africa and main programs designed to address them. Topics include family planning, STIs, abortion, adolescents, HIV/AIDS, and refugees. Letter grading.

432. Perinatal Health Care: Principles, Programs, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal health care, including perinatal epidemiology, outcomes research, neonatal morbidities, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, and medical/legal issues. S/U or letter grading.

433. Reproductive Health: Demographic Applications. (4) Lecture, four hours. Introductory aspects of population dynamics; reproductive biology (male and female); contraceptive methods; fertility-related behaviors and STDs; methods to measure contraceptiveness (life tables) and program (evaluation) effectiveness. Letter grading.

434A. Maternal and Child Health in Developing Areas. (4) Lecture, four hours. Requisite: course 231. Major health problems of mothers and children in developing areas, stressing causation, management, and prevention. Particular reference to adapting programs to limited resources in cross-cultural milieu. S/U or letter grading.


448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition science course and/or nutrition program experience. Nutrition programs and policies in the U.S. and developing countries compared and contrasted. Analysis of role of major international, governmental, and nongovernmental agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.

449. Nutrition and Chronic Disease. (4) Lecture, four hours. Preparation: one graduate or undergraduate course in chemistry or biochemistry, physiology, and nutritional sciences, or M.D. degree. Advanced seminar on biological, socioeconomic, and societal determinants of health of healthy individuals, current knowledge of role of nutrition in disease prevention, nutritional and metabolic responses to disease, and role of nutritional therapy in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Requisite: course 295. Examination of how public health research and practices can be combined to address post-disaster community health needs. Identification of disaster-related health problems, data collection strategies, and service delivery approaches in a post-disaster environment. Letter grading.

M470. Introduction to Occupational and Environmental Health Education. (2 or 4) (Same as Urban Planning M470.) Lecture. Three hours. Preparation: at least three social sciences courses. Designed to provide students with understanding of problem areas of occupational and environmental health and education interventions which can be applied. Letter grading.

474. Self-Care and Self-Help in Community Health. (4) Lecture, two hours; discussion, two hours. Review of background, principles, concepts, programs, and research concerning the emerging field of self-care in health. S/U or letter grading.
482. Practicum: Community Health Sciences. (4)
Discussion, two hours; fieldwork, up to 20 hours. Requisite: courses 210, 211A, 211B. Understanding of professional practice in health-related organizations. Letter grading.

483. Leadership Development and Empowerment for Health Promotion and Health Education. (4)
Lecture, three hours; discussion, one hour. Requisite: courses 210, 211A, 211B. Development of basic understanding of and competence in leadership development and empowerment support for health promotion in multicultural and distressed communities (e.g., south-central Los Angeles). Letter grading.

485. Resource Development for Community Health Programs. (4)
Lecture, three hours; fieldwork, one hour. Designed for graduate students. Overview course of fund and resource development for public health and community-based programs. Lectures and workshops include developing grant proposals, researching funding sources, evaluating proposals, developing volunteer and in-kind resources, and implementing capital campaigns. Letter grading.

487. Community Organization for Health. (4)
Lecture, three hours; fieldwork, four to six hours. Preparation: three public health, sociology, or anthropology courses. Requisite: course 210. Theory and practice of community organizations, including models and strategies of community organization and their application to health problems and health policy. Particular attention to use of community organization for health promotion and to change public policy. Letter grading.

495B. Teaching in Public Health. (4)
Lecture, three hours; discussion, one hour. Designed for graduate students. Preparation of advanced doctoral students for teaching responsibilities as part of university career. Although classroom teaching to be emphasized, in-field teaching responsibilities as part of university career. Used to record time spent teaching to be arranged. May not be applied toward minimum graduate course requirement. S/U grading.

495B. Teaching in Public Health. (4)
Lecture, three hours; discussion, one hour. Designed for graduate students. Preparation of advanced doctoral students for teaching responsibilities as part of university career. Although classroom teaching to be emphasized, in-field teaching responsibilities as part of university career. Used to record time spent teaching to be arranged. May not be applied toward minimum graduate course requirement. S/U grading.

495B. Teaching in Public Health. (4)
Lecture, three hours; discussion, one hour. Designed for graduate students. Preparation of advanced doctoral students for teaching responsibilities as part of university career. Although classroom teaching to be emphasized, in-field teaching responsibilities as part of university career. Used to record time spent teaching to be arranged. May not be applied toward minimum graduate course requirement. S/U grading.

501. Cooperative Program. (2 to 8)
Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 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 12)
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 8)
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.

COMPARATIVE LITERATURE

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Marilyn Manners, Ph.D.

Scope and Objectives

Standing at the forefront of innovative literary analysis and criticism, comparative literature is one of the most exciting fields in the humanities. As a discipline it requires exceptional linguistic ability and high intellectual caliber. UCLA’s program offers students the opportunity to work with faculty in any of the University’s language and literature departments as well as with the Comparative Literature Department faculty.

Comparative literature at UCLA focuses on those elements which define literature in general, such as genre, period, theme, language, and theory. Courses are designed to provide students with a historical understanding of the concepts of genre and period by studying specific genres and periods or literary movements.

Paradigmatic or thematic courses offer another way of examining literature synchronically or diachronically regardless of language boundaries.

Courses in literary criticism and theory inquire into the premises of specific critical approaches, and of criticism itself, in order to provide further insight into the intellectual and moral concerns of literature and the world it reflects. Thus, through the study of these various assumptions and aspects of literature and criticism, students learn not only to cross linguistic boundaries, but to join them — to compare and to contrast, to analyze and, finally, to synthesize the text and the subtext, the structure and the history which define, undermine, and transcend the text and its reader.

Undergraduate Study

Comparative Literature B.A.

Preparation for the Major

Required: Two courses from the Comparative Literature 1 or 2 series or comparable lower division courses in other departments; completion of the College Writing requirement; literary proficiency in at least one language other than English, to be demonstrated by successful completion of (1) two years of the college language sequence or its equivalent or (2) an 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 world or English literature survey courses, and two years of one 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 courses, of which (1) a minimum of four must be from comparative literature offerings, including Comparative Literature 100 and at least three additional comparative literature courses selected from M101 through 197; (2) four upper division literature courses using original language texts in the major language area; (3) three upper division literature courses using original language texts in the minor language area (students may petition the undergraduate adviser to take three upper division literature courses in translation if their major area is in a language other than English); (4) one upper division elective in a third language or a field such as anthropology, art, art history, Asian languages and cultures, classics, film, folklore, history, music, philosophy, or political theory, to be selected in consultation with the undergraduate adviser.

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 require-
Comparative Literature

Lower Division Courses

1A. World Literature: Antiquity to Middle Ages. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Iliad or Odyssey, Greek tragedies, portions of the Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristan and Isolde. P/NP or letter grading.

1B. World Literature: Middle Ages to the 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 4B. 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, Calderón, Molière, and Racine. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to the 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 courses 2C or 4C. Study of major texts in world literature, with emphasis on English literature. Authors include Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, Dostoievsky, Kafka, Joyce, Woolf, and Stevens. P/NP or letter grading.

1D. Great Books from the 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 2D or 4D. Study of major literary texts usually overlooked in courses that focus only on the Western literary tradition, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Iliad, Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, or Marie de France. Satisfies Writing II requirement. Letter grading.

2CW. Literature and Writing: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for courses 1A or 4A. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Iliad, Odyssey, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Marie de France, Tristan and Isolde, 1001 Nights, Popul Vuh. Satisfies Writing II requirement. Letter grading.

2DW. Literature and Writing: Great Books from the World at Large. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1D or 4D. Study of major literary texts usually overlooked in courses that focus only on the canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of the following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. 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. Not open for credit to students with credit for course 1A or 2B. Study and discussion of selected texts from the Middle Ages to the 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Chaucer, Dante’s Divine Comedy; Cervantes’ Don Quixote, Shakespeare, 1001 Nights, Christine de Pizan, Popul Vuh, Molière, and Racine. Satisfies Writing II requirement. Letter grading.

4BW. Literature and Writing: Age of Enlightenment to the 20th Century. (5) Discussion, four hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 1B or 2B. Study and discussion of selected texts from the Middle Ages to the 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, M. Shelley, Flaubert, Ibsen, Strindberg, Dostoievsky, Gogol, Kafka, Joyce, Beckett, L. Hughes, and Garcia Marquez. Satisfies Writing II requirement. Letter grading.

Upper Division Courses

100. Introduction to Comparative Literature: Histories, Theories, Practices, and Perspectives. (5) Lecture, four hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Requisit: two courses from Comparative Literature 1 or 2, or English 10 series or Spanish 60 series, etc. Seminar-style introduction to discipline of comparative literature presented through a series of texts illustrative of its formation and practice. Letter grading.

102. Classical Tradition: Epic. (4) Seminar, three hours. Designed for upper division literature majors. Analysis of works by Ovid, Vergil, Homer, Gerusalemme Liberata, 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.

105. Comic Vision. (4) Lecture, three hours. Designed for upper division literature majors. Literary masterpieces, both dramatic and nondramatic, 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 seniors/juniors. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to the modern period. All works read in translation. P/NP or letter grading.

120. The Individual and Society in the Renaissance. (4) Lecture, three hours; discussion, one hour. Requisite: one course from 1A, 1B, 1C, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Explorations of change in Western man's relationship to his world, himself, and his art; reading of such works as Don Quixote, Montaigne's Essays, Gargantua and Pantagruel, The Praise of Folly, Utopia. P/NP or letter grading.

122. 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 include 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.

125. Hemispheric Exchanges. (5) Lecture, three hours. Designed for juniors/seniors. In “Reading North by South,” Neil Larsen claims that North American writers have set out to translate Latin American sinister intent, being largely product of U.S. Cold War politics, investing in fiction that could produce images of areas ripe for development. From poetry perspective, dynamic was quite different. In the 1930s, North American poets became involved in labor of love, reading, circulating, and translating recent or contemporaneous poetry by their counterparts south of the border. Study of poetry translations by writers from both hemispheres and examination of consequences of these preliminary translations for later development of poetry on both sides of continental divide. Concurrently scheduled with course C255. P/NP or letter grading.

156. Fantastic Fictions. (4) Formerly numbered C167.) Seminar, three hours. Designed for upper division literature majors. Time and again in modern literature, corpuses become conduits or catalysts for revelation. What are ghosts that fiction frequently cannot put to rest, and what is their connection to national history or nation language or narrative? Readings from James Joyce, John Banville, Henry James, Toni Morrison, Adolfo Biaya Casares, Juan Carlos Onetti, Juan Rulfo, and Carlos Fuentes, with films by Alejandro Jodorowsky, Andrei Tarkovsky, and Kenji MIZoguchi. May be concurrently scheduled with course C256. Undergraduate students read all works in translation. P/NP or letter grading.

157. Memory and Forgetting. (5) Seminar, four hours. Reading of theoretical accounts of nature of traumatic memory and consideration of relationship between memory and history, meanings of both writing and reading trauma, and discussion of ethical (personal and communal) commitment to memory. Reading of memoirs of survivors and questioning of importance of authenticity in regard to representations of past for later development of poetry on both actual past? What is role of memory in maintenance of collective memory? How is value of testimony judged? What are criteria on which authenticity is claimed? Concurrently scheduled with course C257. P/NP or letter grading.

158. Colonial Encounters. (4) Seminar, three hours. Discussion of how a Western textual system restricts expressions of colonized peoples to an encounter with the European. As a means of understanding limits to a European frame of reference, reading of English literary works alongside their postcolonial counterparts. Investigation of how representations of historical material informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

165. Holocaust in Literature. (4) (Same as Jewish Studies M187.) Lecture, three hours. Requisite: History M182D or 183A or 183B. Investigation of how Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

166 Korean American Literature. (4) (Same as Asian American Studies M132B.) Seminar, three hours. Designed for upper division literature majors. Study of modern European novel's development from the 19th to 21st centuries. Use of authors such as Franz Kafka, Walter Benjamin, Hannah Arendt, and Thomas Mann judged? What are criteria on which authenticity is claimed? Concurrently scheduled with course C264. Undergraduate students may read all works in translation or read in original language whenever possible. P/NP or letter grading.

167. Fiction and History. (4) Seminar, three hours. Designed for upper division literature majors. Analysis of use of historical events, situations, and characters in literary works of the Renaissance to modern period. Texts and individual assignments range from Renaissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by authors such as Stendhal, Flaubert, James Joyce, Robert Coover, and Haruki Murakami. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and political influences influence authenticity and choice and use of historical material. May be concurrently scheduled with course C261. P/NP or letter grading.

168. Holocaust in Literature. (4) (Same as Jewish Studies M187.) Lecture, three hours. Requisite: History M182D or 183A or 183B. Investigation of how Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

169. Continental African Authors. (4) Lecture, three hours. Requisite: one course from 1A, 1B, 1C, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Introduction to new set of African authors and attempt to discern similarities or differences they may have with major authors such as Achebe, Ngugi, Armat, Soyinka, etc. P/NP or letter grading.

170. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Women's 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. May be concurrently scheduled with course CM202. Undergraduate students read all works in translation. P/NP or letter grading.
191. Variable Topics in Comparative Literature. (4) (Formerly numbered 194.) Seminar, three hours. Designed for juniors/seniors. Study of limited periods and specialized 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/senior. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.

198. Honors Research in Comparative Literature. (2 to 4) Seminar, four hours. Study of specific poets and poetic relations to them during first half of the 20th century. May include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valery, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as a group one additional hour each week. S/U or letter grading.

205. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Study of specific poets and poetic relations to them during first half of the 20th century. May include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valery, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as a group one additional hour each week. S/U or letter grading.

236 / Comparative Literature
C261. Fiction and History. (4) Seminar, three hours. Analysis of use of historical events, situations, and characters in literary works of the Renaissance and/or modern period. Texts and individual assignments range from Renaissance historical narratives (Italian humanists, Machiavelli) to 19th- and 20th-century novels by authors such as Stendhal, Vorga, Tomasi di Lampedusa, Carpenter, and Kundnna. Use of fiction-al methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors’ choice and use of historical material. May be concur-rently scheduled with course C161. Graduate stu-dents required to prepare papers based on texts read in original languages. S/U or letter grading.

C263. Crisis of Consciousness in Modern Litera-ture. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. 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, Rilke, Woolf, Sartre, and Stevens. May be concur-rently scheduled with course C163. Graduate students required to prepare papers based on texts read in original languages and to meet as a group one addi-tional hour each week. S/U or letter grading.

C264. Modern Continental Novel. (5) Seminar, three hours. Preparation: reading knowledge of at least one appropriate foreign language. Study of modern European novel’s development from the 19th to 21st centuries. Use of authors such as Hardy, Strindberg, Lagerkvist, Gide, Proust, Mann, Joyce, Kafka, Woolf, Sartre, and Christa Wolf to focus on development of themes such as shifting authority, gender conflicts, change versus sta-bility, formal experimentation, and self-consciousness in narrative. May be concurrently scheduled with course C164. Graduate students required to prepare papers based on texts read in original languages whenever possible and to meet one additional hour each week.

C266. Writing and the Photographic Image. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Designed for graduate students. Investigation of intertextual relations be-tween writing and photography in American and Eu- ropean contexts. Study rests on premise that a photo-graph enters public domain framed by writing and dis-course and that, in turn, some forms of writing are framed by photographic modes of representation. S/U or letter grading.

CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Formerly numbered C270.) Same as Women’s Studies CM270.) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. In- vestigation of narrative texts by contemporary French, German, English, American, Spanish American, Afri-can, and Asian women writers from cross-cultural perspective. Common themes, problems, and tech-niques. May be concurrently scheduled with course CM170. Graduate students required to prepare pa-pers based on texts read in original languages when-ever possible. S/U or letter grading.


272. The Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appro-priate foreign language. Study of the postmodern novel as it developed out of modernism. Postmodern-ism defined in three different ways — philosophically, scientifically, and economically. Emphasis on relation-ship of recent novels to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Boll, and Calvino. Concurrently scheduled with course C172. Graduate students required to meet as a group one additional hour each week. S/U or letter grading.

C273. Postmodernism and the Third World. (4) Seminar, three hours. Preparation: reading knowl-edge of one appropriate foreign language. Explora-tion of intersection between concepts of postmodern-ism and Third World culture and politics, including topics such as post-Marxism and revolution; historical thought; gender, ethnicity, imperialism, and their rela-tionship to cultural politics; and recent Latin American literary production. Concurrently scheduled with course C173. S/U or letter grading.

M274. Theorizing the Third World. (4) Same as Afro-American CM278. (5) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships between the so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.


M276. Reading Modern Bodies. (4) (Same as Japa-nese M276.) Seminar, three hours. Designed for graduate students. Exploration of construction of hu-man body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from vari-ety of locales, with particular emphasis on Japan. S/U or letter grading.

C277. Caribbean Literature: From Negritude to Di-aspora. (4) Seminar, three hours. Historical approach to modern Anglophone and Francophone Caribbean literature, retracing search for cultural identity, begin-ning with the Negritude movement’s claim to Africa as ex-pressed in Aime Cesaire’s classic poem Cahier d’un retour au pays natal and ending with consideration of dispersion of identities in work of writers and intellec-tuals who contend with problem of diasporic Caribbe-an culture. S/U or letter grading.

C278. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of sig-nificant issues in history of 20th-century Indian litera-ture and culture. Great works of modern Indian cul-ture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, in-cluding novels, short stories, poetry, films, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian cul-ture is experience of British colonial rule and massive cul-tural and material changes that accompanied it. Explora-tion of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from Britain under leaders like Mahatma Gandhi and expansion of Indian diaspora. Concurrently sched-uled with course C178. S/U or letter grading.

279. Subaltern Studies: Colonial Histories and Cul-tural Critique. (5) Seminar, three hours. Exami-nation of certain links between practice of cultural crit-icism and problems in historiography of colonial and postcolonial societies. Use of key texts by members of Subaltern Studies collective of Indian historians to explore some central issues arising from this relation-ship. Concurrently scheduled with course C179. S/U or letter grading.


284. Theories of Translation. (4) Seminar, three hours. Examination of various approaches to concept of translation and to its significance for literary stud-ies. Readings include authors such as Matthew Arn-old, Walter Benjamin, George Steiner, and Susan Bassnett. S/U or letter grading.


C287. Reading across Culture. (5) Seminar, three hours. Preparation: reading knowledge of one foreign language. 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 immer-sing ourselves in it or by standing apart? Does ability to understand something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpre-tation have long history in both Western and non-West-ern cultures. Discussion of history of questions about cross-cultural interpretation and comparative interpre-tation of cultures in both comparative literature and cultural anthropology. Reading of some very complex and influential works by such writers as Claude Lévi-Strauss, Amritav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C187. S/U or letter grading.

290. Theory of Film and Literature. (4) Seminar, three hours; film screening, two hours. Study of de-inition and aims of theories of film and literature. Ap-proaches vary by instructor (e.g., postcoloniality, psychoanalysis, semiotics, transnationalism, gender the-ory), S/U or letter grading.


C302. Theories of Empire. (4) Seminar, three hours. History of theorizations of modern imperialism and colonialism, since relevant writings of Karl Marx and Friedrich Engels. Examination of number of landmark theories of empire and consideration of whether or not they may be said to constitute coherent tradition or line of theoretical development. Question of resis-tance to imperial rule and role it plays in these theore-tical accounts. S/U or letter grading.
The undergraduate and graduate studies and research projects in computer science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, VLSI CAD, embedded and reconfigurable systems, computer graphics, and artificial intelligence. Also, the Cognitive Systems Laboratory is engaged in studying computer systems that emulate or support human reasoning. The BioCybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

The Bachelor of Science degree may be attained either through the Computer Science and Engineering major or through the Computer Science major described below.

The Henry Samueli School of Engineering and Applied Science 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 Program Objectives

The goals and objectives of the Computer Science and Computer Science and Engineering majors are to train the next generation of computer scientists and engineers with

1. The broad scientific and technical skills needed for initial employment and a productive career in a rapidly changing environment to provide (a) a thorough grounding in mathematics and science as a foundation for an understanding of computer science, engineering, and many of the technical applications to which computers are applied, (b) a common core knowledge of the principal areas of computer science (theory, algorithms, data structures, software design, concepts of programming languages, and computer architecture) and an understanding of the fundamentals of one engineering or computer applications discipline, (c) the ability to formulate and solve computer science and engineering problems, including design and analysis, conducting measurements, and evaluating trade-offs of functionality and cost, (d) outstanding skills in programming and good engineering practices of software development, and (e) the ability to use modern design and analysis tools for implementing and evaluating hardware, software, and engineering designs

2. Specialization in preparation for research or engineering practice in computing and
the fertile application areas where computing and other technical fields intersect to (a) provide understanding of specialized areas of computer science and in engineering as preparation for research or cross-disciplinary engineering, (b) provide the ability to understand the larger systems goals with the ability to design specifications and integrate separately engineered products into a well-balanced design that meets user needs, and (c) take maximum advantage of the resources of a research university through undergraduate involvement in research with mentoring by faculty researchers and their research associates

3. Professional skills needed for success in teamwork, written and oral communications, an understanding of the societal, economic, and ethical implications of their work, and familiarity with rapidly changing technologies and the necessity for lifelong learning to remain relevant by (a) providing ample individual projects for students to develop and demonstrate knowledge gained, creativity, and written and oral communication skills, (b) providing opportunities for students to develop and demonstrate teamwork, written and oral communications, and to integrate knowledge and skills gained from preceding studies through capstone design courses in computer hardware and/or software, (c) providing coverage of ethical and societal issues through discussions in regular courses and a required specialized ethics course, (d) providing familiarity with advanced developments in technology-based courses and a sufficient understanding of the history and technology advances in each area to demonstrate the need for lifelong learning, (e) developing independent study skills to obtain and demonstrate knowledge of state-of-the-art information, and (f) providing an environment that nurtures student involvement and leadership skills by actively supporting student organizations and their projects

4. A grounding in humanities and social sciences to broaden student perspective by better understanding student culture and the relationship between engineering and science and other forms of creative thinking, and by developing lifelong interests in nontechnical areas to provide an appreciation of creative thinking of a nonquantitative nature found in the arts and humanities, and a better understanding of the wider culture in which scientists and engineers function most effectively both as citizens and professionals

Undergraduate Study

Computer Science and Engineering B.S.

The ABET-accredited 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.

The computer science and engineering curriculum is also accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

The Major

Course requirements are as follows (186 minimum units required):

1. Four core courses: Computer Science 31, 32, 33, M51A (or Electrical Engineering M16)
2. Computer Science 111, 118, 131, M151B (or Electrical Engineering M116C), 180, 181, Electrical Engineering 10, 102, 103, 110, 110L, 115A, 115AL, 115C, Statistics 110A; 6 laboratory units from Computer Science M152A (or Electrical Engineering M116L) and M152B (or Electrical Engineering M116D); one computer science/electrical engineering elective (excluding Electrical Engineering 100)
3. Four upper division elective courses from the Computer Science Department. Course 199 may normally be taken only as a free elective; however, students may petition for exceptions in extraordinary situations
4. Chemistry and Biochemistry 20A; Electrical Engineering 1, 2, Physics 1A, 1B, 4AL, 4BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61
5. HSSEAS general education (GE) requirements. See http://www.seasosa.ucla.edu/ge.html for details. Computer Science and Engineering majors are also required to satisfy the ethics and professionalism requirement by completing one course from Engineering 95 or 183 or 185, which may be applied toward either the humanities or social sciences section of the GE requirements

Computer Science B.S.

The computer science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

The computer science curriculum is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.

The Major

Course requirements are as follows (182 minimum units required):

1. Four core courses: Computer Science 31, 32, 33, M51A (or Electrical Engineering M16)
2. Computer Science 111, 112, 118, 131, 132, M151B (or Electrical Engineering M116C), 161, 180, 181, Statistics 110A; Computer Science 170A or Electrical Engineering 103; 6 laboratory units from Computer Science M152A (or Electrical Engineering M116L) and M152B (or Electrical Engineering M116D). Students who select Electrical Engineering 103 may not receive credit for Mathematics 151A under the technical minor
3. Two elective upper division computer science courses
4. A minor or technical support area composed of three upper division courses selected from one of the following areas: astronomy, atmospheric and oceanic sciences, biology, chemical engineering, chemistry and biochemistry, civil and environmental engineering, Earth and space sciences, economics, electrical engineering, information studies, linguistics, management, materials science and engineering, mathematics, mechanical and aerospace engineering, molecular biology, physics
5. Electrical Engineering 1, 2, Physics 1A, 1B, 4AL, 4BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61
6. HSSEAS general education (GE) requirements. See http://www.seasosa.ucla.edu/ge.html for details. Computer Science majors must also select two additional humanities/social sciences courses and one additional life sciences course and are re-
required to satisfy the ethics and profession-
ialism requirement by completing one
course from Engineering 95 or 183 or 185,
which may be applied toward either the
humanities or social sciences section of
the GE requirements. Chemistry 20A may
be substituted for one of the life sciences
courses.

Graduate Study

Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
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 Philos-
ophy (Ph.D.) degrees in Computer Science. A
concurrent degree program (Computer Sci-
ence M.S./Management M.B.A.) is also of-
fered.

Computer Science

Lower Division Courses

2. Great Ideas in Computer Science. (4) Lecture,
four hours; outside study, eight hours. Broad cover-
age for liberal arts and social sciences students of
computer science theory, technology, and implica-
tions, including artificial and neural machine intelli-
gence, computability limits, virtual reality, cellular au-
toma, artificial life, programming languages survey,
and philosophical and societal implications. P/NP or
letter grading.

31. Introduction to Computer Science I. (4) Lecture,
four hours; discussion, two hours; outside study,
six hours. Limited to Computer Science and Electrical
Engineering majors. Introduction to computer science
via theory, applications, and programming. Basic data
types, operators and control structures. Input/output,
Procedural and data abstraction. Introduction to ob-
ject-oriented software development. Functions, recur-
sion, Arrays, strings, 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) Lecture,
four hours; discussion, two hours; outside study,
six hours. Requisite: course 31. Limited to Computer
Science and Electrical Engineering majors. Object-
oriented software development. Abstract data type
definition and use. Overloading, inheritance, polymor-
phism. Object-oriented view of data structures:
stacks, queues, lists. Algorithm analysis. Trees,
graphs, and related algorithms. Searching and sorting.
Case studies and exercises from computer science
applications. Letter grading.

33. Introduction to Computer Organization. (5) Lecture,
four hours; discussion; two hours; outside study,
nine hours. Enforced requisite: course 32. Lim-
ited to Computer Science and Electrical Engineering
majors. Introductory course on computer architecture,
assembly language, and operating systems funda-
mentals. Number systems, machine language, and
assembly language. Procedure calls, stacks, inter-
ruptrants, and traps. Assemblers, linkers, and loaders.
Operating systems concepts: processes and process
management, input/output (I/O) programming, memo-
ry management, file systems. Letter grading.

M51A. Logic Design of Digital Systems. (4) (Same as Electrical Engineering M16.) Lecture, four hours;
discussion, two hours; outside study, six hours. Requ-
isite: Physics 14C. Introduction to modern digital
system design. Specification and implementation of combinational
and sequential systems. Standard logic modules and programmable logic arrays. Specification and imple-
mentation of digital systems: data and control sections. Number systems and arithmetic algorithms. Error control codes for digital information. Letter grad-
ing.

Upper Division Courses

111. Operating Systems Principles. (4) Lecture,
four hours; laboratory, six hours. Introduction to de-
sign and performance evaluation of modern operat-
ing systems. Mapping and binding of addresses. Or-
ganization of multiprogramming and multiprocessing
systems; interrupts, process model, and interlocks. Resource allocation models and problem of dead-
locks. Scheduling, synchronization. Memory manage-
ment, virtual memory, input/output (I/O) control, file systems. Letter grading.

112. Computer System Modeling Fundamentals. (4)
Lecture, four hours; outside study, eight hours. Requisite: Statistics 110A. Designed for juniors/se-
niors. Basic tools for performance evaluation
and design of distributed computer systems, in-
cluding such topics as combinatorics, generating
functions, probability theory, transforms, Markov
chains, baby queueing theory. Presentation of this set
of tools in a fashion that is rich with examples from
computer systems field. Letter grading.

113. Introduction to Distributed Embedded Sys-
tems. (4) Lecture, four hours; laboratory, four hours;
outside study, four hours. Requisites: courses 111, 118.
Introduction to basic concepts needed to under-
stand, design, and implement wireless distributed
embedded systems. Focus on design implications of energy and otherwise resource-constrained
devices, network self-configuration and adaptation, lo-
calization and time synchronization, applications, and
usage issues such as human interfaces, safety, and
security. Heavily project based. Letter grading.

117. Computer Networks: Physical Layer. (6) Lec-
ture, four hours; discussion, four hours; outside study,
10 hours. Not open to students with credit for course
M17L1. Introduction to basic concepts of network communi-
cation concepts underlying and supporting modern net-
works, with focus on physical and media access lay-
ers of network protocol stack. Systems include high-
speed LANs (e.g., fast and giga Ethernet), optical
DWDM (dense wavelength division multiplexing), time
tdivision SONET networks, wireless LANs
(IEEE802.11), and ad hoc wireless and personal area
networks (e.g., Bluetooth). Experimental laboratory
sessions included. Letter grading.

118. Computer Network Fundamentals. (4) Lecture,
four hours; discussion, two hours; outside study,
six hours. Requisites: courses 32, 33. Highly recom-
mended: course 111. Designed for seniors/graduates.
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, internet-
working, congestion control, and link layer protocols
including Ethernet and wireless channels. Letter grad-
ing.

130. Software Engineering. (4) Lecture, four hours;
laboratory, two hours; outside study, six hours. Requi-
site: course 32. Structured programming, program
specification, modularity, abstraction, data types, composite design, software tools, soft-
ware control systems, program testing, team pro-
gramming. Letter grading.

131. Programming Languages. (4) Lecture, four
hours; laboratory, two hours; outside study, six hours.
Requisites: courses 32, 33. Basic concepts in design
and use of programming languages, including ab-
straction, modularity, control mechanisms, types, dec-
larations, syntax, and semantics. Study of several dif-
frent language paradigms, including functional, ob-
ject-oriented, and logic programming. Letter grading.

132. Compiler Construction. (4) Lecture,
four hours; discussion, two hours; outside study, six hours. Requisites: courses 32, 131, 181. Compiler structure: lexical and syntactic analysis; semantic analysis and
code generation; theory of parsing. Letter grading.

133. Parallel and Distributed Computing. (4) Lec-
ture, four hours; discussion, two hours; outside study, six hours. Requisite: course 32. Information and

143. Database Systems. (4) Lecture, four hours;
laboratory, two hours; outside study, six hours. Requisite: course 32. Information and database sys-

M151B. Computer Systems Architecture. (4) (Same as Electrical Engineering M116C.) Lecture,
four hours; discussion, two hours; outside study, six hours. Requisites: courses 33, and M51A or Electr-
cal 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), perfor-
manace evaluation, pipelined processors. Letter grad-
ing.

151C. Design of Digital Systems. (4) Lecture,
four hours; discussion, two hours. Requisite: courses
M51A, M151B, M152A. Design of complex digital sys-
tems using hierarchical approaches and regular struc-
tures. Combinational, sequential, and algorithmic sys-
tems. Microprogramming and firmware engineering.
Cost/performance measures and technology con-
straints. Use of design tools. Design project. Letter
grading.

M152A. Introductory Digital Design Laboratory. (2) (Same as Electrical Engineering M116L.) Labora-
tory, four hours; outside study, two hours. Requisite:
course M51A 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, de-
sign projects. Letter grading.

M152B. Digital Design Project Laboratory. (4) (Same as Electrical Engineering M116D.) Laboratory,
four hours; discussion, two hours; outside study, six hours. Requisite: course M151B or Electrical Engi-
eering M116C. Design and implementation of com-
plex digital subsystems using field-programmable gate
arrays (e.g., processors, special-purpose pro-
cessors, device controllers, and input/output interfac-
es). Students work in teams to develop and imple-
ment designs and to document and give oral presen-
tations of their work. Letter grading.
161. Fundamentals of Artificial Intelligence. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Prerequisites: course 32. Introduction to fundamental problem solving and knowledge representation paradigms of artificial intelligence. Introduction to Lisp with regular programming assignments. State-space and problem reduction methods, brute-force and heuristics search, game playing and no-player games. Knowledge structures including predication logic, production systems, semantic nets and primitive database. Special topics in natural language processing, expert systems, vision, and parallel architectures. Letter grading.

163. Introduction to Natural Language Processing. (4) Lecture, four hours; laboratory, two hours. Prerequisites: course 130 or 191. Role of semantics, pragmatics in human language processing by computers. Natural language generators and parsers, inference, and conceptual analysis. Modeling conceptual processes and representing semantic knowledge by means of computer problems. Letter grading.


M171L. Data Communication Systems Laboratory (2 to 4) (Same as Electrical Engineering M171L). Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: courses M152A, 171. Limited to seniors. Interpretation of analog-signaling aspects of digital systems and data communications through experience in using contemporary test instruments to generate and display signals. 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 interference. Letter grading.

174A. Introduction to Computer Graphics. (4) (Formerly numbered 174.) Lecture, four hours; discussion, two hours. Requisite: course 174A. State of art in three-dimensional photographic and rendering. How to use cameras and light to capture shape and appearance of real objects and scenes. Process provides simple way to acquire three-dimensional models of unpar-alleled 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 (augmented reality for security or surgery), and visual surveil- lance. Fundamental analytical tools for modeling and inferring geometric (shape) and photometric (reflection, illumination) properties of objects and scenes, and for rendering and manipulating novel views. Let- ter grading.

C174C. Computer Animation. (4) Lecture, four hours; discussion, two hours. Requisite: course 174A. Designed for juniors/seniors. Introduction to computer animation, focusing on the rendering of character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and systems, and some advanced topics, two hours currently scheduled with course C274C. Letter grading.


M186A. Introduction to Cybernetics, Biomodeling, and Biomedical Computing. (2) (Formerly numbered M196A.) (Same as Biomedical Engineering M186A and Cybernetics M186A.) Lecture, two hours. Requisites: Mathematics 31A, 31B. Program in Computing 10A. Strongly recommended for students with potential interest in biological engineering/biocomputing fields or in Cybernetics as a major. Introduction to and study of topics in biomodeling, big computing, and related biointerface disciplines. Lectures presented by faculty currently performing research in one of the areas; some sessions include laboratory/3 hours. Letter grading.

M186B. Computational Systems Biology: Model- ing and Simulation of Biological Systems. (5) (Formerly numbered M196B.) (Same as Biomedical Engineering M186B, Cybernetics M186B, and Medi- cal Physics M186B.) Lecture, discussion, four hours; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dy-namic system modeling, compartmental modeling, and formal logic for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

CM186L. Biomedical Systems/Biocybernetics Re- search Laboratory. (2 to 4) (Formerly numbered CM186L.) (Same as Biomedical Engineering CM186L and Cybernetics CM186L.) Lecture, two hours; laboratory, two hours. Requisite: course M186B. Special laboratory techniques and experi- ence in biocybernetics research. Laboratory instru- ments, their use, design, and/or modification for re- search in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Com- prehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM286L. Letter grading.

188. Special Courses in Computer Science. (4) (Formerly numbered 198.) Lecture, four hours; outside study, eight hours. Special topics in computer science for undergraduate students that are taught on experimental basis, such as courses taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Computer Sci- ence. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research meth- ods and current literature in field of or research of facul- ty members or students. Letter grading.

199. Directed Research in Computer Science. (2 to 8) 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 topic or instructor change. Limited to two credit hours per term. Consent of instructor 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. Designed for gradu- ate computer science students. Seminars on current research topics held in computer science. May be repeat- ed for credit. S/U grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Prep- aration: completion of major field examination in com- puter science. Current research into theory of, analysis and synthesis of, and applica- tions of information processing systems. Each mem- ber completes one tutorial and one or more original pieces of work in the specialized area. May be repeat- ed for credit. Letter grading.

211. Network Protocol and Systems Software De- sign for Wireless and Mobile Internet. (4) Lecture, four hours; outside study, eight hours. Requisite: course 118. Designed for graduate students. In-depth study of network protocol and systems software design in area of wireless and mobile Internet. Topics in- clude (1) networking fundamentals: design philoso- phy of TCP/IP; end-to-end arguments, and protocol design principles, (2) networking protocols: 802.11 MAC standard, packet scheduling, mobile IP, ad hoc routing, and wireless TCP; (3) mobile computing sys- tems software: middleware, file system, services, and applications, and (4) topical studies: energy-efficient design, security, location management, and quality of service. Letter grading.


213. Distributed Embedded Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 118. Designed for graduate students. Introduction to the design of distributed computing architectures that support monitoring and manipulation of physical spaces through wireless sensor networks. Study of distributed protocols and systems. Topics include design implications of energy and otherwise resource-constrained nodes, network self-configuration and adaptation, localization and time synchronization, programming paradigm, appli- cations, and the usage issues of human interfaces, safety, and security. Letter grading.
214. Data Transmission in Computer Communications. (4) Lecture, four hours; outside study, eight hours. Required: Limited to graduate computer science students. Discrete data streams, formats, rates, transductions; digital data transmissions via analog signaling in computer communication; media characteristics, systems methodologies, performance analysis; modem designs; physical interfaces in computer communication links; national/international standards; tests and measurements. Letter grading.

215. Computer Communications and Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112. Resource sharing; computer traffic characteristics; multiplexing; network structure; packet switching; transport protocols; network interface protocols; ARAPNet and other computer network examples; network delay and analysis; network design and optimization; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

216. Distributed Multiaccess Control in Networks. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 212A, 215. Topics from the field of distributed control and access in computer networks, including terrestrial distributed computer networks; satellite packet switching; ground radio packet switching; local networks; commercial network services and architectures. Optional topics include extended error control techniques; modern; SDL, HDLC, X.25, etc.; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

217. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of Internet development history and fundamental principles underlying TCP/IP protocol design. Discussion of current research topics, including multicast routing protocols, multimedia, error control and verification, ATM, high-speed networks, World Wide Web, multimedia applications on Internet. Fundamental issues in network protocol design and implementations. Letter grading.

218. Advanced Computer Networks. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 212A, 215. Topics from the field of distributed control and access in computer networks, including terrestrial distributed computer networks; satellite packet switching; ground radio packet switching; local networks; commercial network services and architectures. Optional topics include extended error control techniques; modern; SDL, HDLC, X.25, etc.; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

219. Current Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of Internet development history and fundamental principles underlying TCP/IP protocol design. Discussion of current research topics, including multicast routing protocols, multimedia, error control and verification, ATM, high-speed networks, World Wide Web, multimedia applications on Internet. Fundamental issues in network protocol design and implementations. Letter grading.

220. Advanced Computer Networks. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 212A, 215. Topics from the field of distributed control and access in computer networks, including terrestrial distributed computer networks; satellite packet switching; ground radio packet switching; local networks; commercial network services and architectures. Optional topics include extended error control techniques; modern; SDL, HDLC, X.25, etc.; protocol verification; network simulation and measurement; integrated networks; communication processors. Letter grading.

221. Control and Coordination in Economics. (4) (Same as Economics M222A.) Lecture, three hours. Recommended preparation: appropriate mathematics course. Designed for graduate economics and engineering students. Stabilization policies and goals; short- and long-run dynamics and stability analysis; decentralization, coordination in teams; certainty equivalence and separation theorems; stochastic and learning models. Bayesian approach to price and output rate adjustment. S/U or letter grading.

230A. Models of Information and Computation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131, 181. Paradigms, models, frameworks, and meta-modeling; basic information and computation models; axiomatic systems; domain theory; least fixed point theory; well-founded induction. Logical models: sentences, axioms, normal forms, derivation and proof, models and semantics, propositional logic, first-order logic, logic programming. Functional models: expressions, equations, evaluation; combiners; lambda calculus; functional programming. Program models: program derivation and verification using Hoare logic, object models, standard templates, design patterns, frameworks. Letter grading.

233A. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitives for parallel computation; specification of parallelism, interprocess communication and synchronization, atomic actions, binary and multway rendezvous; synchronous and asynchronous languages: CSP, Ada, Linda, Maile, UC, and others; introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and axiomatic semantics for selected parallel languages. 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 an area of computer science programming languages and systems in which instructor has developed special proficiency as a consequence of research interests. May be repeated for credit with topics at discretion of instructor. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131. Theoretical and technological foundation of Intelligent Database Systems, which merge database technology, knowledge-based systems, and advanced processing 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.

240B. Advanced Data and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143, 240A. Logical models for data and knowledge representations. Rule-based languages and nonmonotonic reasoning. Temporal queries, spatial queries, and uncertainty in deductive databases and object relational databases (ORDBs). Abstract data types and user-defined column functions in ORDBs. Data mining algorithms. Semistructured information. Letter grading.


241B. Pictorial and Multimedia Database Systems. (4) Lecture, three and one-half hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisites: courses 143, 241A. Multimedia data: alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models and accessing. Querying, visual languages, and communication. Database design and organization, logical and physical. Search by content and indexing methods. Internet multimedia streaming. Data heterogeneity and distribution. 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, efficient page refresh techniques, deadlock, strong and weak concurrency control, commit protocols, semantic query answering, multidatabase systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

245A. Intelligent Information Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 241A, 255A. Knowledge discovery in database, knowledge-base maintenance, knowledge-base and database integration architectures, and scale-up issues and applications to cooperative database systems, intelligent decision support systems, and intelligent planning and scheduling systems; computer architecture for processing large-scale knowledge-base/database systems. Letter grading.

246. Web Information Management. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 112, 143, 180, 181. Designed for graduate students. Scale of Web data requires novel algorithms and principles for their management and retrieval. Study of Web characteristics and new management techniques needed to build computer systems suitable for Web environment. Topics include Web measuring techniques, large-scale data mining algorithms (efficient page refresh techniques, Web search ranking algorithms, and query processing techniques on independent data sources. Letter grading.

249. Current Topics in Data Structures. (2 to 12) Lecture, four hours; outside study, eight hours. Requisite: course 233A. Fundamental data structures and algorithms with emphasis on database and database integration architectures, and scale-up issues and applications to cooperative database systems, intelligent decision support systems, and intelligent planning and scheduling systems; computer architecture for processing large-scale knowledge-base/database systems. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 111. Design and implementation of high-performance systems, advanced memory hierarchy techniques, static and dynamic pipelining, superscalar and VLIW processors, branch prediction, speculative execution, software support for instruction-level parallelism, simulation-based performance analysis and evaluation, state-of-the-art design examples, introduction to parallel architectures. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. SIMD and MIMD systems, symmetric multiprocessors, distributed-shared-memory systems, messages-passing systems, clusters, interconnection networks, level-host network interfaces, switching element design, communication primitives, cache coherency, memory consistency models, synchronization primitives, state-of-the-art design examples. Letter grading.
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253C. Testing and Testable Design of VLSI Sys- tems. (4) Lecture, four hours; outside study, eight hours. Requisite: course M51A. Detailed study of var- ious testing techniques to create testable designs. VLSI systems, including fault modeling, fault simulation, testing for single stuck faults and multiple stuck faults, functional testing, design for testability, compression techniques, and built-in self-test. Letter grading.

254A. Computer Memories and Memory Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 251A. Generic types of memory systems; control, access modes, hierarchies, and al- location algorithms and characteristics, system organiza- tion, and device considerations of ferro magnetic硬盘, thin film memories, and semiconductor memories. Letter grading.

255A. Distributed Processing Systems. (4) Le- cture, four hours; outside study, eight hours. Requi- sites: courses 215 and/or 251A. Task partitioning and allocation, interprocess communications, task re- sponse time model, process scheduling, message passing protocols, replicated file systems, interface, cache memory, actor model, fine grain multiproces- sors, distributed operating system kernel, error recov- ery strategy, performance monitoring and measure- ment, scalability and maintainability, prototypes and com- mercial distributed systems. Letter grading.


258B. Foundations of VLSI CAD Algorithms. (4) Lecture, four hours; outside study, eight hours. Prepa- ration: one course in analysis and design of algo- rithms. Topic of combinatorial optimization for VLSI physical layout, including mathematical pro- gramming, network flows, matching, greedy and heu- ristic algorithms, and stochastic methods. Emphasis on practical application to computer-aided physical design of VLSI circuits at high-level phases of layout: partitioning, placement, graph folding, floorplanning, and global routing. Letter grading.

258C. Physical Design Automation of VLSI Sys- tems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design auto- mation problems of VLSI circuits, including logic parti- tioning, floor planning, power distribution, channel and switchbox routing, planar routing and via mini- mization, compaction and performance-driven layout. Discussion of applications of a number of im- portant optimization techniques, such as network flows, Steiner trees, simulated annealing, and generic algorithms. Letter grading.

258G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requi- sites: courses 251A and/or 253A. Logic synthesis problems in logic-level synthesis of digital VLSI sys- tems, including two-level Boolean network optimiza- tion; multi-level Boolean network optimization; technol- ogy mapping for standard cell designs and field-pro- grammable gate-array (FPGA) designs; retiming for sequential circuits, and applications of binary deci- sion diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI In- terconnects. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, M258B. De- tailed study of various problems in analysis and design of high-speed VLSI interconnects at both inte- grated circuit (IC) and packaging levels, including inter- connect capacitance and resistance, lossless and losses transmission lines, cross-talk and power distri- bution noise, power distribution models, interconnect topology and geometry optimi- zation, 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 an area of computer science system design in which instructor has developed special proficiency as a consequence of his own research and development. Topics may be repeated for credit with topic change. Letter grading.


262A. Reasoning with Partial Beliefs. (4) Lecture, four hours; outside study, eight hours. Requisite: 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 us- ing belief networks representation. Letter grading.


M252C. Causal Inference. (4) (Same as Statistics M241.) Lecture, four hours; outside study, eight hours. Requisite: course 112 or equivalent probability theory course. Techniques of using computers to in- terpret, summarize, and form theories of empirical ob- servations. Mathematical analysis of trade-offs be- tween computational complexity, storage require- ments, and precision of computerized models. Letter grading.

262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requi- site: course M252A. May be repeated for credit with topic change. Letter grading.

263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Pre- sentation of process models for variety of tasks, in- cluding question answering, paraphrasing, machine translation, word-sense disambiguation, narrative and editorial comprehension. Examination of both sym- bolic and statistical approaches to language process- ing and acquisition. Letter grading.

263B. Connectionist Natural Language Process- ing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 161 or 163 or 263A. Examina- tion of connectionist/ANN architectures designed for natural language processing. Issues include local- ist vs. distributed representations, variable binding, in- stantiation and IA. Examine via reseaching activation, ac- quisition of language and word knowledge (for in- stance, via back propagation in PDP networks and competitive learning in self-organizing feature maps), and graph-based symbols in sensory/motor experi- ence. Letter grading.

263C. Animals-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Animals are mobile/sensing ani- mal-like software agents embedded in simulated dy- namic environments. Emphasis on modeling: goal- oriented behavior via neurocontrollers, adaptation via reinforcement learning, evolutionary programming. Animal-based tasks include foraging, mate finding, in- preation, navigation, predator avoidance, coopera- tive nest construction, communication, and parenting. Letter grading.

264A. Automated Reasoning: Theory and Applica- tions. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course 161. In- troduction to theory and practice of automated rea- soning using propositional and first-order logic. Topics include syntax and semantics of first-order logic; algo- rithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on ex- pressiveness, compactness, and computational trac- tability; applications of automated reasoning to diag- nosis, planning, design, formal verification, and reli- ability analysis. Letter grading.

267A. Neural Models. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Review of physiological neuroanatomy 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, sensory-motor coordination, and cerebellar and cortical structure and function. Students required to prepare a paper 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 past and current implementations of artificial neural networks along with their applications to associative knowledge processing, general multilayer pattern recognition including speed and vision, and adaptive robot control. Students required to prepare a paper analyzing research in one area of interest. Letter grading.


268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, six hours. Designed for students undertaking thesis research. Discussion of relevant topics and current research in computational neuroscience. Neural networks and connectionism as a paradigm for parallel and concurrent computation in application to problems in perception, vision, multimodal sensory integration, and robotics. May be repeated for credit. S/U grading.

269. Seminar: Current Topics in Artificial Intelligence. (2 to 4) Seminar, to be arranged. Review of current literature and research practice in an area of artificial intelligence in which instructor has developed special proficiency as a consequence of research interests. Students report on selected topics. May be repeated for credit. Topics change. Letter grading.

270A. Computer Methodology: Advanced Numerical Methods. (4) Lecture, four hours; outside study, eight hours. (Formerly numbered 181A; Mathematics 151B) Designed for graduate computer science and engineering students. Principles of computer treatment 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 the applicability of contemporary developments in numerical software. Computer exercises. Letter grading.


271C. Seminar: Advanced Simulation Methods. (2) Seminar, two hours; outside study, six hours. Required: 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. S/U grading.

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 systems configurations, and alternative reduction techniques, simulation models of computer systems and manufacturing systems. Letter grading.


274C. Computer Animation. (4) Lecture, four hours; recitation, two hours. Required: course 214A. Introduction to computer animation, including basic concepts of character modeling, forward and inverse kinematics, forward dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C174C. Letter grading.

275A. Pattern Recognition and Machine Learning. (4) (Formerly numbered 275A.) 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/CTCA, 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. Required: course M276A or 276B. Topics in human-computer communication, interaction with pictorial information systems, 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 applications. Letter grading.

279. Current Topics in Computer Science: Methodology. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computer science methodology in which instructor has developed special proficiency as a 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. Required: course 280A. Additional requisites for each offering announced in advance by department. Solve problems in design, analysis, optimization, and implementation of algorithms; computational complexity and general theory of algorithms; algorithms for particular application areas. Substitutes of some current sections: Principles of Design and Analysis (280A); Distributed Algorithms (280B); Graphs and Networks (280G). May be repeated for credit with consent of instructor and with topic change. Letter grading.

281A. Computability and Complexity. (4) Lecture, four hours; outside study, eight hours. Required: course 281, 287 or comparable experience with computer science methodology. Topics include decidability, unsolvable problems, “easy” and “hard” problems, PTIME/NP-TIME. Letter grading.

281D. Discrete State Systems. (4) Lecture, four hours; outside study, eight hours. Introduction to theorey of cryptography, stressing rigorous definitions and provable security. Topics include one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions. Letter grading.

M282A. Cryptography. (4) (Formerly numbered 282A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and provable security. Topics include one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

M282B. Cryptographic Protocols. (4) (Formerly numbered 282B.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and provable security. Topics include one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.


284A-284ZZ. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Required: course 281. Additional requisites for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing; multidimensional grammars, developmental systems; machine-based complexity. Substitutes of some current and planned sections: Context-Free Languages (284A), Parsing Algorithms (284P). May be repeated for credit with consent of instructor and with topic change. Letter grading.
CM286L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) Formerly numbered CM298L. (Biomedical Engineering CM286L.) Lecture, two hours; laboratory, two hours. Requisite: course M186B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for use in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Concurrently scheduled with course CM148L. Letter grading.

287A. Theory of Program Structure. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181. Models of computer programs and their syntax and semantics; emphasis on programs and recursion schemes; equivalence, optimization, correctness, and translatability of programs; expressive power of program constructs and data structures; selection of current topics. Letter grading.

288S. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requisite: consent of instructor. Intended for students undertaking thesis research. Discussion of advanced topics and current research in such areas as algorithms and complexity models for parallel and concurrent computing, and formal language and automata theory. May be repeated for credit. S/U grading.

289A-289ZZ. Current Topics in Computer Theory. (2 to 12 each) Lecture, four hours; outside study, eight hours. Review of current literature in an area of computer science. Intended for students who have developed special proficiency as a consequence of research interests. Students report on selected topics. Letter grading.

289QA. Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 280. Introduction to decision making under uncertainty and competitive analysis. Review of current research in online algorithms for problems arising in many areas, such as data and memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

289RA. Randomized Algorithms. (4) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, random walks, and probabilistic method. Applications to randomized algorithms in graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Biomedical Engineering 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, multicompartamental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biomedical Engineering M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course M296A or Biometrics M220. Estimation methodology and model parameter estimation algorithms for fitting dynamic systems to experimental data. Methodology, design, 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.


M296D. Introduction to Computational Cardiology. (4) (Same as Biomedical Engineering M296D.) Lecture, four hours; outside study, eight hours. Requisite: course M186B. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological processes. I onic models of action potential (AP), Theory of AP propagation in one-dimensional and two-dimensional cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.

296. Research Seminar: Computer Science. (2 to 4) Seminar, two hours; outside study, four hours; outside study, four to eight hours. Directed for graduate computer science students. Discussion of advanced topics and current research in algorithmic processes that describe and template computer science: theory, analysis, design, efficiency, implementation, and application. May be repeated for credit. S/U grading.


495B. Teaching with Technology. (2) Seminar, two hours; outside study, four hours. Limited to graduate Computer Science Department students. Seminar on communication of computer science materials in classroom: preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

497D-497E. Field Projects in Computer Science. (4-4) Fieldwork, to be arranged. Students are divided into teams led by instructor; each team is assigned an external company or organization which they investigate and report on. Course consists of teams examining software projects, as well as submitting a team report of their findings and recommendations. In Progress (497D) and S/U or letter (497E) grading.

506. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate computer science 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 computer science students. Reading and preparation for M.S. comprehensive examination. S/U grading.

597B. Preparation for Ph.D. Preliminary Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. S/U grading.

597C. Preparation for Ph.D. Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science 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 computer science students. Supervised independent research for M.S. candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of Ph.D. Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate computer science students. Petition forms to request enrollment may be obtained from assistant dean. Graduate Studies. S/U grading.

COMPUTING, PROGRAM IN

See Mathematics

CONSERVATION OF ARCHAEOLOGICAL AND ETHNOGRAPHIC MATERIALS

Interdepartmental Program
College of Letters and Science
UCLA
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http://aoa.ucla.edu/conservation/

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Suzanne E. Paulson, Ph.D. (Atmospheric and Oceanic Sciences, Environment)
David A. Scott, Ph.D. (Art History)
Lothar von Falkenhauen, Ph.D. (Art History)
Willena M. Wendrich, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives

Students study for an M.A. degree in Conversation 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 new 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 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. In the case of ethnographic materials especially, the program facilitates an understanding of the multiple values that artifacts hold for indigenous populations and fosters a sense of partnership with indigenous communities in relevant aspects of the conservation process.

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, and the UCLA Departments of Anthropology, Art History, Chemistry and Biochemistry, and Earth and Space Sciences, 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://www.gdnet.ucla.edu. 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.

**Conservation of Archaeological and Ethnographic Materials**

**Graduate Course**


(4) Lecture, three hours; laboratory, two hours. Preparation: general and organic chemistry, or inorganic and organic chemistry. Several basic scientific techniques employed for examination of archaeological and ethnographic artifacts. Introduction to analytical techniques, methods of dating artifacts, use of microscopy and multispectral imaging to record as much as possible from objects without sampling, use of infrared reflectography, inorganic and organic techniques of analysis used frequently in conservation studies, and case studies where these have been of use in conservation of artifacts. Letter grading.

**Cybernetics**

**Interdepartmental Program**

**College of Letters and Science**

**UCLA**

4436 Boelter Hall

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Los Angeles, CA 90095-1596

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http://www.cs.ucla.edu/~cyber/

Joseph J. DiStefano III, Ph.D., Chair

Elliott M. Landaw, M.D., Ph.D., Vice Chair

**Faculty Advisory Committee**

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Vivek Dixit, M.D. (Medicine)

Stephen A. Engel, Ph.D. (Psychology)

C. Fred Fox, Ph.D. (Microbiology, Immunology, and Molecular Genetics)

Jack W. Judy, Ph.D. (Electrical Engineering)

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Eliott M. Landaw, M.D., Ph.D. (Biostatistics)

Christopher J. Lee, Ph.D. (Chemistry and Biochemistry)

D. Stott Parker, Jr., Ph.D. (Computer Science)

Stefano Satto, Ph.D. (Computer Science)

Benjamin M. Wu, D.D.S., Ph.D. (Bioinformatics, Materials Science and Engineering)

**Scope and Objectives**

The major in Cybernetics is designed primarily for highly motivated undergraduate students interested in interdisciplinary studies in life sciences, behavioral sciences, and engineering and computer sciences. Preparation for the major consists of a broad foundation in basic sciences — chemistry, biology, physics, and mathematics, plus an introduction to psychology and 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.

Cybernetics majors have several options for in-depth studies: a coherent integration of courses selected from the broader concentration areas of life sciences, behavioral sciences, or engineering and applied mathematical sciences, or an integration of courses from these areas, or from one of the designated concentrations in bioinformatics, biomedical systems, or computer systems. 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 medicine, public health, management, dentistry, and engineering.

**Undergraduate Study**

**Cybernetics B.S.**

**Precybernetics Major**

Students may apply for the Precybernetics major via petition if they are sophomores and have taken at least three of the premajor mathematics courses with a 2.7 grade-point average or better and three other premajor courses. Together, all premajor courses, including mathematics, must be completed with at least a 3.0 overall GPA and a minimum grade of C in all courses.

**Preparation for the Major**

**Required:** A minimum of 85 to 86 units (depending on the physics sequence selected), including Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL; Life Sciences 2, 3, 4; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 115A; Physics 1A, 1B, and 1C (or Electrical Engineering 1), or 1AH, 1BH, and 1CH; Program in Computing 10A; Psychology 10. For the bioinformatics concentration, Program in Computing 10B, 10C, and 60 are also required; for the computer systems concentration, Program in Computing 10B, 10C, 30, and 60 are also required.

**Transfer Students**

Transfer applicants to the Cybernetics 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, and one year of life sciences.

Transfer students must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy premajor requirements, and must have completed one 12-unit term of residence in regular session at UCLA.

Refer to the UCLA Transfer Admission Guide 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, 3.0 GPA overall, and a minimum grade of C in all preparation for the major courses).

The major consists of a methodology core of six courses (23 units), a concentration of six to seven upper division courses (24 or 28 units minimum), and a breadth requirement of three courses (12 units). Each course in the major must be passed with a grade of C or better.

**Methodology Core**

**Required:** Four subject areas as follows:

1. One overview course: Cybernetics M186A
2. Two courses in probability and statistics 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
3. Two courses in signals, systems, and control systems: (a) Electrical Engineering 102 and (b) Electrical Engineering 141 or Mechanical and Aerospace Engineering 171A

4. One course in biomodeling and computer simulation: Cybernetics M186B

Concentrations

Required: Six to seven upper division courses (24 or 28 units minimum), depending on the concentration selected. An approved list of courses for each concentration is available in the program office and at [http://www.cs.ucla.edu/~cyber/](http://www.cs.ucla.edu/~cyber/).

For a concentration in the broader areas of life sciences, behavioral sciences, or engineering and applied mathematical sciences, or an integration of courses from these areas, seven courses must be selected from the approved lists in consultation with a faculty mentor and approved by the program chair.

For the bioinformatics concentration, six courses must be selected from the bioinformatics approved list in consultation with a faculty mentor and approved by the program chair.

For the biomedical systems concentration, seven courses must be selected from the biomedical systems approved list in consultation with a faculty mentor and approved by the program chair. By petition, up to two relevant courses from another UCLA department may be included among the seven (e.g., upper division requisites to biomedical engineering courses).

For the computer systems concentration, six courses must be selected from the computer systems approved list in consultation with a faculty mentor and approved by the program chair. Note: Program in Computing 10B, 10C, and 60 also are required under Preparation for the Major.

Breadth Requirements

Required: Three courses (12 units minimum) as follows:

For a concentration in the broader areas, one course from the life sciences list, one course from the behavioral sciences list, and one course from the engineering and mathematical sciences list selected in consultation with a faculty mentor and approved by the program chair are required.

For the bioinformatics concentration, three courses from the bioinformatics approved list (one from each of the subgroupings of methodology, computer science, and molecular and cellular biochemistry) selected in consultation with a faculty mentor and approved by the program chair are required.

For the biomedical systems concentration, one course from the life sciences list, one course from the behavioral sciences list, and one course from the engineering and mathematical sciences list selected in consultation with a faculty mentor and approved by the program chair are required. Breadth courses in this option also may include courses from the biomedical systems approved list or from other UCLA departments, if they can be defended as being breadth rather than depth.

For the computer systems concentration, one course from the life sciences list, one course from the behavioral sciences list, and one course from the engineering and mathematical sciences list selected in consultation with a faculty mentor and approved by the program chair are required.

Students may petition to apply up to 4 units of special studies (199) courses in satisfaction of one of the three required breadth courses in any concentration. Special studies courses may not be applied toward any of the concentration requirements.

Honors Program

Junior and senior majors who have completed all preparation for the major courses and have an overall grade-point average of 3.0 or better and a 3.5 or better in required major courses may apply for admission to the honors program. Students are required to take Cybernetics M186B with a corequisite adjunct honors course (189 or 189HC). Students pursuing highest honors must, in addition, complete a senior thesis (Cybernetics 198) based on an approved research topic. Those who successfully complete the program (3.0 GPA or better overall, 3.5 or better in major coursework, and a grade of B or better in the honors adjunct course of Cybernetics M186B or other contracted honors coursework) are awarded a degree with honors. At the discretion of the faculty advisor and the interdepartmental committee, students demonstrating exceptional ability on the senior research thesis are awarded highest honors.

Cybernetics

Upper Division Courses

M186A. Introduction to Cybernetics, Biomodeling, and Biomedical Computing. (2) (Formerly numbered M196A.) (Same as Biological Engineering M186A and Computer Science M186A.) Lecture, two hours. Requisites: Mathematics 31A, 31B, Program in Computing 10A. Strongly recommended for students with potential interest in biomedical engineering/bio-computing fields or in Cybernetics as a major. Introduction and survey of topics in cybernetics, biomodeling, biocomputing, and related bioengineering disciplines. Lectures presented by faculty currently performing research in one of the areas; some sessions include laboratory tours. P/NP grading.

M186B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered M196B.) (Same as Biological Engineering M186B, Computer Science M186B, and Medicine M186B.) Lecture, four hours; discussion, one hour; laboratory, two hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dynamic system modeling, compartmental modeling, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

M186L. Biomedical Systems/Biocybernetics Research Laboratory. (2 to 4) (Formerly numbered M196L.) (Same as Biomedical Engineering CM186L and Computer Science CM186L.) Lecture, two hours; laboratory, two hours. Requisite: course M186B. Special laboratory techniques and experience in biocybernetics research. Laboratory instruments, their use, design, and/or modification for research in life sciences. Special research hardware, firmware, software. Use of simulation in experimental laboratory. Laboratory automation and safety. Comprehensive experiment design. Radioactive isotopes and kinetic studies. Experimental animals, controls. Letter grading.

198. Honors Research in Cybernetics. (4) (Formerly numbered 195H.) Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

DANCE

See World Arts and Cultures

DENTISTRY

School of Dentistry

UCLA

A0-111 Dentistry

Box 951668

Los Angeles, CA 90095-1668

(310) 825-9789

http://www.dent.ucla.edu

No-Hee Park, D.D.S., M.S.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 defined research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at (310) 825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members.
Dentistry

Upper Division Courses

199. Individual Special Studies. (2 to 8) Studies in dentistry and related subject areas appropriate for the training of particular students, with required reading assignments or laboratory work leading to a final oral or written examination. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Studies in dentistry and related subject areas appropriate for the 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). P/NP or letter grading.

Graduate Courses


M422. Health Policy Issues for Dental Profession- als. (2) (Same as Health Services M448.) Lecture, two hours. Requisites: Biostatistics 100A, Epidemiology 100, Health Services 100. Current public health policy issues in dental health, including cost, financing, role of government, and quality assurance. S/U grading.

M433A. Case Studies in Dental Practice. (2) (Same as Health Services M448D.) Lecture, two hours. Provides students with practice methodology for evaluation of dental care settings. Didactic and field experience, providing foundation for evaluation of programs. S/U grading.

441C. Introduction to Health Care. (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 health care services in America, with comparisons to dental care provisions in other countries. S/U grading.

Associate Professor

Mark H. Hansen, Ph.D.

Assistant Professor

Casey Reas, M.S.

Scope and Objectives

The Department of Design | Media Arts offers the Bachelor of Arts and Master of Fine Arts degrees, which focus on visual communication design with emphasis on digital media. These uniquely challenging programs invite students to balance aesthetic sensitivity with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typogra- phy, visual technologies, and introduction to interactivity and media art. 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.) degree fosters mature, professional-quality work utilizing the most current technologies in the field of media design. The exploration of visual communication in a digital format leads to new concepts and understanding that address the role of design in the rapidly evolving area of digital media. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work. Students have the opportunity to participate in ongoing research projects that may form the basis of their thesis work. Sample topics include design of the interface and design of virtual environments and information spaces that integrate visual elements with sound, movement, time, and space.

Facilities and equipment in the department enable students to create visual designs in two, three, and even four dimensions. They expand opportunities for students to develop interac-

Design | Media Arts

School of the Arts and Architecture

UCLA

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Rebecca Mendez, M.F.A.

Vassa V. Mihich

Christian A. Moeller, Dipl. – ING

Jennifer J. Steinkamp, M.F.A.

Victoria Vesna, 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.

Alice E. McCloskey, M.A.

John A. Neuhart

Nathan H. Shapira, Dottore in Architettura

Associate Professor

Mark H. Hansen, Ph.D.

Assistant Professor

Casey Reas, M.S.

Graduate Study

Required: Design | Media Arts 10, 11A, 11B, 21, 22, 23, 24, 25, 28.

The Major

Required: Nine upper division courses, including two courses from comparative and theoretical studies (Design | Media Arts C101 through C106) and seven courses from area studies (courses C152A through 161C). A minimum of 12 additional upper division units must be selected from the courses listed above and/or from courses C121 through C143, 150A, 150B, 170, 180 through 184, and 195A through 199. With approval of the faculty adviser, other nonmajor courses may be applied toward major credit.

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://www.gdnet.ucla.edu. 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 Master of Arts (M.A.) and Master of Fine Arts (M.F.A.) degrees in Design | Media Arts.

Design | Media Arts

Lower Division Courses

1. Introduction to Digital Photography Workshop. (1) 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. Offered only as part of Summer Institute. P/NP grading.
2. Introduction to Web Design Workshop. (1) 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. Offered only as part of Summer Institute. P/NP grading.

3. Game Design and Three-Dimensional Animation Workshop. (1) Studio, 30 hours. Limited to high school students. Design and creation of student digital games, 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 game developers. Analysis of popular games to understand what is involved in producing modern games. Visits from professional game designer to help guide students in creating their own game designs. Offered only as part of Summer Institute. P/NP grading.

4. Introduction to Digital Video Workshop. (1) Studio, 30 hours. Limited to high school students. Creation of storyboard for short documentary, commercial, or music video. Students shoot and edit their own work. Visits from professionals to help guide students in creating their videos. Offered only as part of Summer Institute. P/NP grading.

5. Introduction to Web Design Workshop. (1) Studio, three hours; outside study, 12 hours. Open to nonmajors. Understanding the design process, with emphasis on development of a visual language; study of historic, scientific, technological, economic, and cultural factors influencing design in our physical environment. P/NP or letter grading.

11A. Design History I. (5) Lecture, three hours; outside study, 12 hours. Required course. 10. Survey of evolution of design for mass production from the mid-19th century to 1930 in Western Europe and North America. Investigation of wide range of objects of design, including industrial and product design, with focus on graphic design as mirror of social, cultural, and technological ideas within broadly defined cultural context. Particular attention to topics such as designer's role in production of visual environment, development of design in context of other kinds of visual media, age-old question of art versus design, and many other arguments and theories that continue to echo through contemporary practice. P/NP or letter grading.

11B. Design History II. (5) Lecture, three hours; outside study, 12 hours. Required course. 11A. Development of ideas and projects in design, with focus on graphic design primarily in the U.S., from 1930 to 1990. Beginning with proposition that there is no one way to practice or analyze contemporary design, lectures focus on evolution of range of issues that include role of designer, practice of design, and consumption of design. Design as art, service, science, politics, and other definitions of practice — and investigation of physical realizations of those practices as way to understand pluralities of design today. P/NP or letter grading.


22. Form. (4) Studio, six hours. Interrelation of two-dimensional surfaces and three-dimensional forms with traditional and experimental materials as a foundation for creativity; origin and solution of problems. P/NP or letter grading.

23. Drawing. (4) Studio, six hours. Translation of perception through delineation, drawing, and other descriptive media. Emphasis on development of student's motor control by means of freehand and mechanical drawing and by development of analytical and objective observation from life and three-dimensional objects. P/NP or letter grading.

24. Visual Thinking. (4) Lecture/studio, four hours; laboratory, two hours. Introduction and integration of traditional design tools, the camera, and digital technologies for application to visual thinking and fundamental technical processes. P/NP or letter grading.

25. Letterforms and Typography. (4) Lecture/studio, four hours; laboratory, two hours. Introduction to typography as basic element of information design and as it applies to various forms of media; historical present. Investigation of media of design and its architecture. P/NP or letter grading.

28. Introduction to Interactivity and Media Art. (4) Studio, six hours; outside study, six hours. Enforced requisite: course 24. Introduction to concept of interactivity and field of media art that follows history of computer as media for artistic exploration in relation to print, animation, and interactivity. Discussion of potential and ideas related to interactivity, with focus on requirements for advancement of field and development of programming skills in service of creating examples of media art. Concepts and skills taught enhance student ability to excel in future courses about Internet, animation, interactive media, and game design. Discussion and readings on four themes: form-programming, motion, interactivity-programming, and interface. P/NP or letter grading.

Upper Division Courses

C101. Media Arts: Introduction. (5) Formerly numbered 101. Lecture, three hours; outside study, 12 hours. Limited to and required of Design I Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from the late-19th century to the present. Exploration of media arts within broad historical and cultural framework. Discussion of parallels and links with other cultural forms, including history of technology and various art and design practices. Concurrently scheduled with course C201. P/NP or letter grading.

102. Introduction to Digital Image Creation and Manipulation. (5) Lecture, three hours; outside study, 12 hours. Overview of digital imaging technologies, communication paradigms, and computer as media for artistic exploration in relation to both technical and content-based points of view. P/NP or letter grading.

104. Design and Society: Society and Design. (5) Lecture, three hours; outside study, 12 hours. Prepara-raton: completion of preparation for the major courses. Open to nonmajors with consent of instructor. Historical and thematic examination of how design affects society from classical antiquity to the 20th century in order to understand historically how each type and application of design related to sociological context in which it existed. Consideration of how various design practices and techniques related to each other. P/NP or letter grading.

106. Media Studies. (5) Lecture, three hours; outside study, 12 hours. Prepara-tation: completion of preparation for the major courses. Overview and contextual understanding of influences and origins of media, communication paradigms, and technologies of past 150 years through reading and discussion of theoretical and historical works. Concurrently scheduled with course C206. Letter grading.

C121. Fundamentals of Architectonics: Proportion. (4) Lecture, three hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Inquiry concerning architecture of space, the body's role in production of visual environment, and a mathematical viewpoint. Concurrently scheduled with course CM221. P/NP or letter grading.

C122. Fundamentals of Architectonics: Symmetry. (4) Lecture, three hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Inquiry concerning architecture of spatial configurations from both a historical position and a mathematical viewpoint. Concurrently scheduled with course CM222. P/NP or letter grading.

C123. Fundamentals of Architectonics: Composition and Order. (4) Lecture, three hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Inquiry concerning architecture of spatial configurations from both a historical position and a mathematical viewpoint. Concurrently scheduled with course CM223. P/NP or letter grading.

C141. Programming Computer Applications in Architecture and Urban Design. (4) 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. Concurrently scheduled with course CM241. P/NP or letter grading.

C142. Introduction to Geometric Modeling. (4) Lecture, three hours; outside study, nine hours. Requ- isite: course C141. Survey of three-dimensional modeling, with emphasis on implementation of three-dimensional solids constructions and editing operations. Basic representations and operations on shapes and solids. Concurrently scheduled with course CM242. P/NP or letter grading.

C143. User Interaction Techniques in Design. (4) Lecture, three hours; outside study, nine hours. Requ- isite: course C141 or knowledge of C++ programming language. Programming techniques for implementing modern computer-user interfaces, specifically looking at issues related to building software tools for computer-aided problem solving in architecture and design. Concurrently scheduled with course CM243. P/NP or letter grading.

150A-150B. Design I Media Arts Brand Laboro- tory. (5-5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphics, file I/ O, color models, and image processing. Concurrently scheduled with course C252A. Letter grading.

C152B. Programming Media II. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Programming techniques for developing dynamic interactive art and design. Exploration of conceptual space enabled by electronic media and through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphics, file I/ O, color models, and image processing. Concurrently scheduled with course C252A. Letter grading.

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153A. Design for Video. (5) [Formerly numbered 153.] Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the 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.

153B. Advanced Design for Video. (5) Studio, six hours; outside study, nine hours. Requisite: course 153A. Use of video technology to create digital short film from design perspective. Emphasis on design theories behind production design, lighting, staging, camera movement and positioning, editing, sound, and marketing. May be repeated once for credit. P/NP or letter grading.

154A. Design for Print Media. (5) [Formerly numbered 154.] Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisite: course C101 or 104 or C106. Introduction to procedures to create, plan, and produce visual communication design. Emphasis on acquiring and working with visual vocabulary to gain mastery of conceptual and creative procedures by utilizing tools to translate ideas and concepts into visual design and graphic imagery. P/NP or letter grading.

154B. Integrative Typography. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and 154A. Integration of print and digital information technology, with continued emphasis on fully integrating visual vocabulary with mastery of conceptual and creative procedures. P/NP or letter grading.

156A. Three-Dimensional: Design of Virtual Form. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisite: course C101 or 104 or C106. Through lectures, discussions, and studio work, introduction to basic elements of three-dimensional computer visualization, including modeling, image mapping, virtual projected construction, and rendering. P/NP or letter grading.

156B. Three-Dimensional: Time and Motion in Virtual Space. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and 156A. Extension of study of virtual three-dimensional form to include motion, time, and rhythm. Storyboard development, modeling of articulated characters and objects, virtual camera movement, and motion capture. May be repeated once for credit. P/NP or letter grading.

157A. Design for Interactive Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and 154A. Emphasis on graphic and information design for interactive media applications. Introduction to multimedia and hypertext. Focus on learning role of conceptual designer as visual communicator and design manager. P/NP or letter grading.

157B. Advanced Interactive Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and 154A. 157A. Extension of study of interactive media design. Focus on development of advanced conceptual skills in interface design and nonlinear narrative utilizing programming techniques such as lists and objects. Builds on skills and concepts acquired in course 157A. May be repeated once for credit. P/NP or letter grading.

158. Design for Environmental Communication. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and 154A. Introduction to environmental communication design through experience in the design studio. Focus on aesthetic issues concerning creation of design elements incorporating concepts of spatial dimension, human/environmental scale, motion, and time. Overview of history, technologies, and future of environmental graphic design. P/NP or letter grading.

159. Senior Project. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisites: courses C101 or 104 or C106, and three courses from 154A through 158A. Limited to seniors. Individual study organized and conceptualized by senior students. Proposal for research and development of design and production of body of work. May be repeated once for credit. Letter grading.

160. Special Topics in Area Studies. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Enforced requisite: course 102 or 104 or C106. Selection of a variety of approaches which may include projects, readings, discussion, research papers, and oral presentations. Topics to be announced in advance. May be repeated for maximum of 15 units. May be applied toward area studies. Letter grading.

161A. Introduction to Creative Use of Internet. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for the major courses. Emphasis on gaining deeper understanding of technical concepts in networking while learning history of Internet and becoming familiar with state-of-the-art tools of the moment. Storyboard and project development integrated into all aspects of class. Letter grading.

161B. Dynamic Web. (5) Studio, six hours; outside study, nine hours. Requisite: course 161A. Intermediate-level course. Production through networked multimedia environments, with focus on Worldwide Web. Builds on skills and concepts acquired in course 161A. May be repeated once for credit. Letter grading.

161C. Designing Networked Public Spaces. (5) Studio, six hours; outside study, nine hours. Requisites: courses 161A, 161B. Advanced-level course exploring creative production through online environmental and telecommunication design of multilus- ter collaborative spaces. Builds on skills and concepts acquired in course 161B. Letter grading.

170. Topics in Design. (2 to 8) [Formerly numbered 189.] Lecture, four hours. Examination by faculty members of optional courses, readings, presentations, matrix representations, symmetry and groups, graphs, maps and triangulations. May be repeated for credit with consent of adviser. S/U grading.

180. Proseminar: Design I Media Arts. (5) Formerly numbered 193.] Seminar, six hours; outside study, nine hours. Open to senior and advanced students. Examination in seminar format of specific problems relevant to design theory and performance. Topics announced in advance. Letter grading.

182. Design Processes. (5) Studio, six hours; outside study, nine hours. Introduction to early development of tools, cloth, shelters, symbols, and embellishments. P/NP or letter grading.

184. Material Processes. (5) Studio, six hours; outside study, nine hours. Use of hand processes and variety of materials to develop simple to complex surface pattern systems and other physical objects as means for creative expression. P/NP or letter grading.

195A-195B. Community or Corporate Internship (Formerly numbered 195.) Studio, six hours; outside study, nine hours. Preparation for visualization. May be repeated for combined maximum of 8 units. Only 10 units may be applied toward area studies. Letter grading. May be repeated for a maximum of 15 units. Only 10 units may be applied toward area studies. Letter grading. May be repeated for credit with consent of adviser. S/U or letter grading.

197. Honors Research in Design I Media Arts. (4) [Formerly numbered 197.] 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 I Media Arts. (2 to 8) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research under guidance of faculty advisor. May be taken for a maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Design I Media Arts Faculty Seminar. (2) Seminar, two hours. Limited to graduate design I media arts students. Designed to familiarize new graduate students with departmental faculty members and their creative work and research to help students select their faculty advisers. S/U grading.

C201. Media Arts: Introduction. (5) Lecture, three hours; outside study, 12 hours. Preparation: limited to and required of Design I Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from the 19th century to the present. Investigation of media arts with broad incorporation of different cultural framework. Discussion of parallels and links with other cultural forms, including history of technology and various art and design practices. Concurrently scheduled with course C101. Letter grading.

C206. Media Studies. (5) Lecture, three hours; outside study, 12 hours. Designed for graduate design I media arts students. Overview and contextual understanding of influences and origins of media, Sets, relations, posets, lattices, Boolean 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 I. (4) Lecture, three hours. Designed for graduate students. Survey of mathematical techniques used in design and computation theory. Sets, relations, posets, lattices, Boolean and Heyting algebras, formal languages and production systems. May be repeated for credit with consent of adviser. S/U or letter grading.

CM221. Fundamentals of Architectonics: Proportion. (4) [Same as Architecture and Urban Design M225A.] Lecture, three hours; outside study, nine hours. Inquiry concerning architecture of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit with consent of adviser. Concurrently scheduled with course C121. S/U or letter grading.

CM222. Fundamentals of Architectonics: Symmetry. (4) [Same as Architecture and Urban Design M225B.] Lecture, three hours; outside study, nine hours. Inquiry concerning architecture of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit with consent of adviser. Concurrently scheduled with course C122. S/U or letter grading.

CM223. Fundamentals of Architectonics: Comparison and Ordering. (4) [Same as Architecture and Urban Design M225C.] Lecture, three hours; outside study, nine hours. Inquiry concerning architecture of spatial configurations from both a historical position and a mathematical viewpoint. May be repeated for credit with consent of adviser. Concurrently scheduled with course C123. S/U or letter grading.
229. Advanced Seminar: Architectonics. (4) Seminar, three hours. Requisites: courses CM221, CM222, CM223. Exploration in depth of an active research question in architectonics. Topics may focus on some aspect of proportion, symmetry, compatibility, and order from historical and/or formal point of view. May be repeated for credit with consent of adviser. S/U or letter grading.

CM241. 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. Concurrently scheduled with course CM141. S/U or letter grading.

CM242. Introduction to Geometric Modeling. (4) (Same as Architecture and Urban Design M227B.) Lecture, three hours; outside study, nine hours. Requisite: course CM241. Survey of geometric and three-dimensional modeling, with emphasis on implementation of three-dimensional solids constructions and editing operations. Basic operations on shapes and solids may be repeated for credit with consent of adviser. Concurrently scheduled with course CM142. S/U or letter grading.

CM243. Techniques in Design. (4) (Same as Architecture and Urban Design M227C.) Lecture, three hours; outside study, nine hours. Requisite: course CM241 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. Concurrently scheduled with course CM143. S/U or letter grading.

249. Advanced Seminar: Computer Applications. (4) Seminar, three hours. Requisite: course CM141 or CM241 or Architecture and Urban Design M227A. Survey of various roles computers may play in design: development of new applications. Topics include representation, search, evaluation functions, and communication. May be repeated for credit with consent of adviser. S/U or letter grading.

C252A. Programming Media I. (5) Studio, six hours; outside study, nine 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 basics includes procedural and object-oriented programming, two- and three-dimensional graphics, file I/O, color models, and image processing. Concurrently scheduled with course C152A. Letter grading.

C252B. Programming Media II. (5) Studio, six hours; outside study, nine hours. Requisite: course C252A. Limited to majors. Computer programming to develop dynamic interactive art and design. Exploration of conceptual space to be enabled by electronic media and through exercises, presentations, discussions, and critiques, culminating in self-motivated final project. Prototyping with diverse software materials and advanced programming techniques. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.

254. Dynamic Media. (4) Lecture/studio, six hours. Designed for graduate design I media arts majors. Emphasis on creation of dynamic, digital, and linear works through integration of typography, photography, video, graphics, animation, and sound. May be repeated for credit with consent of adviser. Letter grading.

256. Interactive Environments. (4) Lecture/studio, six hours. Requisites: courses C201 or C206, 254. Designed for graduate design I media arts majors. Emphasis on comprehension of fundamental principles of interactivity and networked environments. May be repeated for credit with consent of adviser. Letter grading.

258. Current State of Technology. (4) Lecture/studio, six hours. Designed for graduate design I media arts majors. Introduction to state-of-the-art software programs and techniques necessary for design of interactive and multimedia applications. May be repeated for credit with consent of adviser. Letter grading.

M259. Data and Media Arts. (4) (Same as Statistics M237F.) Studio, six hours. Requisites: courses 254, 256. Through expanding reach 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, 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.

269. Graduate Seminar. (4) Seminar, four hours. Designed for graduate design I media arts majors. Survey of critical theories in media art and design. Critical examination of student work by peers, faculty, and expert guests. Must be taken twice for M.F.A. degree. May be repeated for credit with consent of adviser. Letter grading.

287. Form and Structure. (2 to 8) Studio or studio/seminar, to be arranged. Exploration of form, with emphasis on expressive experimentation in materials and processes. May be repeated for credit with consent of adviser. Letter grading.

289. Special Topics in Design. (2 to 8) Seminar, to be arranged. Examination of specific problems relevant to design theory and performance. Topics announced in advance. May be taken for a maximum of 8 units. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

401. Design Studio I. (2 to 8) Studio, to be arranged. Limited to first-year graduate design I media arts students. Introduction to advanced experimentation and integration of media, technologies, and concepts, with emphasis on development of design work of individual graduate students. May be repeated for credit with consent of adviser. Letter grading.

402. Design Studio II. (2 to 8) Studio, to be arranged. Requisites: courses C206, 254, 256, 401 (4 units). Continuation of advanced design research based on experimentation integrated into a disciplined approach to design process. Focus on development of comprehensive body of work which forms basis of M.F.A. thesis exhibition. May be repeated for credit with consent of adviser. Letter grading.

496. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching pedagogy and classroom mechanics. Problems and practices of teaching design at college level, as well as role of teaching assistants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.

EARTH AND SPACE SCIENCES

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Emily E. Brodsky, Ph.D.
Brian K. Horton, Ph.D.
Abby Kavner, Ph.D.
Edwin A. Schaufel, Ph.D.

Adjunct Professor
Paul M. Merifield, 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 which are emphasized at UCLA include isotopic 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 Sciences 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 environmental sciences, law, government, business, journalism, public health, medicine, or dentistry. 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

Geology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 51A, 51B, 61; Chemistry and Biochemistry 14A, 14B, 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 Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Recommended: Mathematics 32B. All courses must be passed with a minimum grade of C–.

Transfer Students

Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one general chemistry course with laboratory for majors, and one year of calculus. One introductory computer programming 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: Earth and Space Sciences 103A, 103B, 103C, 111, 112, 116, 121, 133, 135, and three additional courses from C106, C107, C109, 119, 125, C126, C132, 134, 136C, 137, 139, 141, 150, 152.

Students with an interest in nonrenewable natural resources are advised to take courses 136C, 137, 139, and/or 150. Those interested in geochemistry are advised to take Earth and Space Sciences 103C, C107, C109, 119, 121, C126, C132, and/or Chemistry and Biochemistry 30A, 30B, 110A, 110B, 114, 153A, 184.

Geology/Engineering Geology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H or 5 or 8 or 9 or 15, 51A, 51B, 61; Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32A; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. Recommended: Mathematics 32B. All courses must be passed with a minimum grade of C–.

Transfer Students

Transfer applicants to the Geology/Engineering Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one year of calculus. One introductory computer programming 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: Earth and Space Sciences 103A, 103B, 103C, 111, 112, 116, 121, 133, 135, and three additional courses from C106, C107, C109, 119, 125, C126, C132, 134, 136C, 137, 139, 141, 150, 152.

Students with an interest in nonrenewable natural resources are advised to take courses 136C, 137, 139, and/or 150. Those interested in geochemistry are advised to take Earth and Space Sciences 103C, C107, C109, 119, 121, C126, C132, and/or Chemistry and Biochemistry 30A, 30B, 110A, 110B, 114, 153A, 184.

Geology/Paleobiology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 51A, 51B, 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. All courses 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 for up-to-date information regarding transfer selection for admission.

The Major


Geophysics/Applied Geophysics B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 51A, 51B, 61; Chemistry and Biochemistry 20A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL; Civil and Environmental Engineering 15 or Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. All courses 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 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 for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 103A, 103B, 103C, 111, 112, 116, 121, 133, 135, 139; Civil and Environmental Engineering 108, 120, 121, 150; one course from Earth and Space Sciences C126, C132, 134, 136C, 137, 141, 150, Civil and Environmental Engineering 128BL, 151, 155, Geography 100.

Geology/Paleobiology B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 3, 16 or 17, 51A, 51B, 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. All courses must be passed with a minimum grade of C–.
Geophysics/Geophysics and Space Physics B.S.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 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 Mechanical and Aerospace Engineering 20 or Program in Computing 10A or knowledge of Fortran or C++ demonstrated by examination. All courses must be passed with a minimum grade of C–.

Transfer Students

Transfer applicants to the Geophysics/Space Physics and Space Physics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, a 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 for up-to-date information regarding transfer selection for admission.

Transfer Applicants

Transfer applicants to the Geophysics/Space Physics and Space Physics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, 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 for up-to-date information regarding transfer selection for admission.

The Major

Required: Earth and Space Sciences 134, M140, 152, 153, 154, 155; 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.

Qualifying undergraduate students may, with consent of their advisers and the instructor, take Earth and Space Sciences graduate courses numbered from 200A through 248.

Earth Sciences B.A.

Preparation for the Major

Required: Earth and Space Sciences 1 or 1F or 1H, 9, 51A, 51B, 61; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A and 20L; Mathematics 3A, 3B, and 3C, or 31A and 31B; Physics 1A, 1B, and 4AL, or 6A, 6B, and 6C, or 6AH, 6BH, and 6CH; one course from Chemistry 20B, Life Sciences 1, or Physics 1C. All courses must be passed with a minimum grade of C–.

Transfer Students

Transfer applicants to the Earth Sciences 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 and one year of calculus-based physics with laboratory are 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: Earth and Space Sciences 103A, 103B, 111, 112, 116; five additional upper division courses from Earth and Space Sciences other than 100 or 120, English Composition 129C, Geography 100 and 100A, 101 and 101A, 104, 105 and 105A, M107, or other upper division physical sciences, life sciences, or engineering courses by petition.

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 instructional 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 and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

Geochemistry Minor

Geochemistry emphasizes use of minerals, magmas, elements, and isotopes to date events, determine rates, and track matter through its cycles in the planets and biosphere. These skills are valuable in environmental and natural-resource work and anthropology, as well as in studying the histories of the planets. To enter the Geochemistry minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Courses (12 units): Earth and Space Sciences 1, 51A, 51B.

Required Upper Division Courses (20 units): Two courses from Earth and Space Sciences 103A, 103B, 103C, 106 or 107 or 108 or 109 (whichever course was not applied above), 152, 153.

All minor courses must be taken for a letter grade, with 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 to 9 units): Earth and Space Sciences 1 or 1F, 61.

Required Upper Division Courses (22 units): Earth and Space Sciences 112, 119, and three courses from C107, 116, 125, C132, 133, 134, 139, 150.

All minor courses must be taken for a letter grade, with 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 which 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 and Space Sciences 1, 8, 9.

Required Upper Division Courses (20 units): Earth and Space Sciences 134, 135, and three courses from M140, 152, 153, 154, 155.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Earth and Space Sciences

Lower Division Courses

1. Introduction to Earth Science. (4) Lecture, three hours; laboratory, two hours. Not open to students with credit for or currently enrolled in course 1F, 1H, or 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic history; historical aspects of geology. P/NP or letter grading.

1F. Earth Science with Fieldwork. (5) Lecture, three hours; laboratory, two hours; two field days. Not open to students with credit for or currently enrolled in course 1, 1H, or 100. Elements of Earth science; study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology. Introduction to field study of selected problems in geologic history. P/NP or letter grading.

1H. Fundamentals of Earth Science. (4) Lecture, three hours; laboratory, two hours; two field days. Not open to students with credit for or currently enrolled in course 1 or 100. Particularly recommended for future physical sciences majors with strong high school or some lower division preparation. Introduction to Earth materials, physical geology, and tectonics, with examples of geophysical and geochemical methods.

3. 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.

5. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in the 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.


8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field day. Causes and effects of earthquakes. Plate motion, frictional faulting, earthquake instability, wave propagation, earthquake damage, and other social effects. Hazard reduction through earthquake forecasting and earthquake-resistant design. P/NP or letter grading.


15. Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours. Not open for credit to students with credit for or currently enrolled in Geology and Evolutionary Biology 25. General introduction to geological, physical, chemical, and biological processes related to characteristics and evolution of ocean system. P/NP or letter grading.

16. Major Events in History of Life. (4) Lecture, two hours; laboratory, two hours. Designed for nonmajors. History of life on Earth as revealed through the fossil record. P/NP or letter grading.

17. Dinosaurs and Their Relatives. (4) Lecture, three hours; laboratory, two hours; one field trip. Designed for nonmajors. Exploration of biology, evolution, and extinction of dinosaurs and close relatives, in context of history of biosphere. Information from paleontology, biology, and geology. P/NP or letter grading.

20. Natural History of Southern California. (5) Lecture, two hours; laboratory, three hours; five field weekends. Identification, distribution, diversity of native plants and communities; identification and interpretation of rocks, minerals, and geologic features and geologic history of physiographic regions of Southern California. Emphasis on field-based learning. P/NP or letter grading.

51A. Mineralogy-Lithology. (4) Lecture, three hours; laboratory, six hours. Enforced requisite: course 1 or 1H. Recommended: completion of chemistry requirement. Mineralogic crystal chemistry; relation of physical properties to structure. Structural classification and petrogenesis of major minerals and rocks. Laboratory study of crystallography and identification of minerals and igneous, sedimentary, and metamorphic rocks in hand sample.

51B. Optical Mineralogy-Petrography. (4) Lecture, three hours; laboratory, three hours; one introductory high school or college physics course. Enforced requisite: course 51A. Principles of optical crystallography. Utilization of optical properties to identify nonopaque minerals in immersion media and in thin section. Study of common igneous, sedimentary, and metamorphic rocks in thin section.

61. Geologic Maps. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisites: courses 1 (or 1H), 51A. Planning, creation, and interpretation of geologic maps, including both practical and philosophical problems that arise. Topographic and geologic mapping in the field. Interpretation of published maps in laboratory. P/NP or 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 1 or 1H. Fundamentals of physical geology and Earth history; major problems of geology, such as continental drift and development of large-scale features of Earth; physical and biological evolution.

102. Reflected Light Microscopy. (2 or 4) Lecture, nine hours; laboratory, three hours. Enforced requisite: course 51B. Study of opalescent or polished section using reflected light methods. Optical theory, qualitative and quantitative measurements, mineral identification, textures and assemblages of reflective metals, oxides, sulfides, and arsenides. Independent project required if taken for 4 units. P/NP or letter grading.

103A. Igneous Petrology. (6) Lecture, two to three hours; laboratory, six hours; field trips. Requisites: courses 1 or 1H, Chemistry 14B and 14BL, or 20B and 20L, Mathematics 3B or 31B. Petrology, chemical composition, and field occurrence of igneous rocks with reference to their origin by melting in earth. Introduction to thermodynamic processes as applied to petrology. Formation of magma, its movement, eruption, crystallization, and chemical evolution. Petrologic structure of crust and mantle and its relation to seismology. Overview of petrological and chemical evolution of Earth, moon, and other planets from their origin to the present. P/NP or letter grading.

103B. Sedimentary Petrology. (6) Lecture, two to three hours; laboratory, six hours; field trips. Requisites: course 103A. Recommended: course 61. Study of sedimentary rocks based on characteristics of sedimentary particles and dynamics of depositional processes. Lectures focus on development of depositional facies models, and laboratory recognition of sedimentary deposits from each major depositional facies. P/NP or letter grading.

103C. Metamorphic Petrology. (6) Lecture, two to three hours; laboratory, six hours; field trips. Requisite: course 103B. Interpreting the metamorphic rocks based on field occurrence, mineralogical composition, texture, and application of physical and chemical principles. P/NP or letter grading.

C106. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51B. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C206. P/NP or letter grading.

C107. Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of the elements and their isotopes; distribution and chemistry of the elements in Earth and its environment. Concurrently scheduled with course C207. P/NP or letter grading.


111. Stratigraphic and Field Geology. (6) Lecture, two hours; laboratory, three hours; fieldwork, one day per week. Requisite: course 61. Principles of stratigraphy; geologic mapping of a selected area; preparation of a geologic report.

111G. Field Geology. (2 to 4) Designed for graduate students. Geologic mapping; principles of stratigraphy, structural geology, and map interpretation.

112. Structural Geology. (6) Lecture, three hours; laboratory, six hours. Requisite: course 1. Recommended: course 51B. Planar and linear structures at different scales in sedimentary, metamorphic, and igneous rocks. Faults and folds, their description, classification, and kinematic and dynamic analysis. Deformation, strength, fracture, and rheological properties of rocks. P/NP or letter grading.

116. Paleontology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: Life Sciences 1 or 2. Review of major groups of fossil organisms and their significance in geology and biology. P/NP or letter grading.
118. Advanced Paleontology. (4) (Formerly numbered CM118.) (Same as Ecology and Evolutionary Biology M145.) Lecture, three hours. Requisite: course 116 or Ecology and Evolutionary Biology 110 or 117. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.


120. Rubey Colloquium: Major Advances in Earth Science. (4) Lecture, three hours. Designed for juniors/seniors. Lectures on major advances in Earth science offered by distinguished authorities (including regular faculty members). Emphasis on continuity and assessment of student performance by a faculty member. Content varies from year to year. If laboratory work is required, course 199 must be taken concurrently.

121. Advanced Field Geology. (8) Lecture, four hours (Spring Quarter); fieldwork, five weeks (Summer Quarter). Requisites: courses 61, 103A, 103B, 111, 112. Problems in field geology; preparation of geologic maps and cross-sections; preparation of written geologic reports in the field and written summary of field work on the selected area. P/NP or letter grading.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 1 or 1H or 100. Recommended: course 103A, Physics 1A or 1AH. Types of volcanism. Physics of magma chambers, volcanic plumbing, explosive and effusive eruptions as illustrated by historical examples. Practical methods of volcanic monitoring, with field trip. P/NP or letter grading.

126. Advanced Igneous Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Understanding the genesis of igneous rocks based on geochemical, tectonochemical, and other geological evidence and principles. Concurrently scheduled with course C226. P/NP or letter grading.


133. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requisite: course 111. Principles of historical geology. Physical evolution of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geologic evolution through time. P/NP or letter grading.

134. Computing in Earth and Space Sciences. (4) Lecture, three hours; laboratory, three hours. Preparation: knowledge of Fortran 90 or C++. Original programming and application of software to generate and test test models or incorporate data sets. Interpolation/extrapolation with graphics to generate hypotheses; forward modeling from fundamental equations to explore implications; probabilistic testing of models. Examples and exercises from Earth and space sciences. Introduction to software used in research and industry. P/NP or letter grading.

135. Introduction to Applied Geophysics. (4) Lecture, three hours; laboratory, one hour. Preparation: knowledge of Fortran 90 or C++. Requisites: Mathematics 3A, 3B, 3C, or 1A, 1B, and 1CH. Physics 1A, 1B, and 1CH, or 6A, 6B, and 6C, and 4AL, 4BL. Not open for credit to students with credit for course 136A. Principles and techniques of exploration for mineral deposits using natural and artificial electromagnetic and magnetic fields. Methods include self potential, resistivity, induced polarization, magnetotellurics, magnetics, P/NP or letter grading.

136A. Applied Geophysics. (4) Lecture, three hours; laboratory/field trips, six hours. Preparation: knowledge of Fortran 90 or C++. Requisite: course 136A. Principles and techniques of exploration for mineral deposits using natural and artificial electromagnetic and magnetic fields. Methods include self potential, resistivity, induced polarization, magnetotellurics, magnetics, P/NP or letter grading.


137. Geomicrobiology. (4) Lecture, three hours; laboratory, one hour. Requisites: courses 61, 111. Geology applied to exploration for and production of natural gas and petroleum; techniques of surface and subsurface geology; problems of petroleum geology.

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1 or 1H or 100. Recommended: course 111. Principles of geology. Physical evolution of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geologic evolution through time. P/NP or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3A, 3B, 3C, Physics 1A, 1B, and 1CH. Physics and chemistry of Earth’s oceans and atmosphere; origin and evolution of planetary atmospheres; biogeochemical cycles, atmospheric radiation and climate, energetics and dynamics of oceanic and atmospheric circulation systems. P/NP or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3A, 3B, 3C, Physics 1A, 1B, and 1CH. Formation of solar nebula; origin of planets and their satellites; comets, asteroids, and meteorites; celestial mechanics and dynamics; physics of planetary interiors, surfaces, and atmospheres. P/NP or letter grading.

160. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum which varies in focus from general geology through structure and tectonics, sedimentology, igneous petrology, metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.

184Q. Field Geology for Graduate Students. (2 to 4) (Formerly numbered 195Q.) Lecture, two hours; four to five field trips. Requisite: course 121. Required of new graduate students in geology program. Advanced techniques in field mapping, exposing students to igneous, metamorphic, and sedimentary terranes with varying amounts of tectonism. May be repeated for credit. P/NP or letter grading.

193A-193B-193C. Undergraduate Journal Club Seminars: Earth and Space Sciences, 1 (1-1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth and space sciences, including participation in weekly department colloquium. May be repeated for credit. P/NP grading.

194A-C194Z. Research Topics in Earth and Space Sciences. (1 each) Research group meeting, one hour. Open to undergraduate students. Study of current topics in Earth and space sciences. P/NP or letter grading.

193A-193B-193C. Undergraduate Journal Club Seminars: Earth and Space Sciences, 1 (1-1) Seminar, one hour. Limited to undergraduate students. Study of current topics in Earth and space sciences, including participation in weekly department colloquium. May be repeated for credit. P/NP grading.

194A-C194Z. Research Topics in Earth and Space Sciences. (1 each) Research group meeting, one hour. Open to undergraduate students. Study of current topics in Earth and space sciences. P/NP or letter grading.
221. Field Geology. (4) Lecture, one hour; discussion, one hour; fieldwork, 10 days. Requisite: course 121 or 184G. Planning, execution, and presentation of geologic mapping projects at professional level. Resolution of problems in Southern California geology from synthesis of new and published research. Field work varies from year to year. May be repeated for credit. S/U or letter grading.

222. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismotectonic; focal conditions; surface wave analysis; microseisms and tsunamis.


225A. Physics and Chemistry of Planetary Interiors I. (4) Chemical compositions of Earth and planets: high-pressure and temperature effects, phase transitions, and equations of state; variations of density and temperature with depth; thermal and compositional evolution.

225B. Physics and Chemistry of Planetary Interiors II. (4) Lateral inhomogeneities in Earth: seismic velocities, petrology, geothermal and gravitational variations; evidences of motion; remnant magnetism, seismic motions; postglacial rebound; plate tectonics; rheology of mantle; thermal convection.

C226. Advanced Igneous Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Designed for graduate students. Understanding the genesis of igneous rocks 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 presentations on particular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

229. Planetary Atmospheres. (4) Lecture, three hours. Requisite: course 200B. Planetary atmospheric structure, dynamics, and composition. Topics include spectral observations of evolution of atmospheres; photochemistry, radiation mechanisms, and transport; atmospheric waves and general circulation; wave-mean flow and turbulence; remote sensing and inversion techniques.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51B. Point, translation, and space group symmetry; diffraction of X-ray, reciprocal lattice theory; single crystal X-ray methods, diffraction symmetry and elementary crystal structure analysis.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51B. Bonding, interatomic configurations, polymorphic transformations, isotypism, thermal and positional disorder; survey of structures of common minerals, and relation of physical and chemical properties to crystal structure.


234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisites: course 51B, Chemistry 108B. Principles governing homogeneous and heterogeneous equilibria, with selected applications to mineral stability relations in igneous and metamorphic rocks (fractional crystallization, partial melting, reactions, element partitioning in coexisting phases). S/U or letter grading.

235A-235B-235C. Current Research in Geochemistry. (1-1-1) Limited to graduate Earth and space sciences students. Seminars presented by staff, outside speakers, and graduate students stressing current research 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 course. Metamorphism course covering formation of metamorphic rocks in light of observation, theory, and experiment. Geological relations, petrographic evidence, metamorphic zoning, thermodynamics of phase equilibria and chemical relationships, use of piezobirefringent haloes, Rayleigh deple- tion model, isotopic fractionation, environmental factors of metamorphism. Laboratory study of representative metamorphic rocks and suites of rocks selected to illustrate topics discussed in lectures.

240. Space Plasma Physics. (4) Lecture, three hours. Requisite: course 200C or Physics 210A. Physics of plasmas in space, including treatments based on magnetohydrodynamics and kinetic theory. Applications to solar or planetary winds, steady-state magnetospheres, magnetospheric convection, substorm processes, magnetic merging, field-aligned currents and magnetosphere/ionosphere coupling, ring current dynamics, and wave particle instabilities. S/U or letter grading.

242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisite: or corequisite: course 141. Petrographic study of sandstones, with emphasis on provenance, petrofacies, and paleotectonic reconstructions.


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.


248. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems.


251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal structure, crystal chemistry, phase equilibria, and petrogenesis.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and ancient sediments, structure and chemistry of the mantle, geochronology, cosmochemistry, and cosmochemistry.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology; methods of evaluating physical conditions of metamorphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of the mantle; element fractionation among coexisting phases; other current subjects in the field. S/U or letter grading.

254. Seminar: Sedimentology. (4) Seminar, three hours. Processes of sediment transport and deposition; deep sea sediments; deltas and estuaries; petrology of modern and ancient sediments; stratigraphic history.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth’s crust from microscopic to continental scale and in experimental environments. Examination of tectonics, geodynamics, tectonics, geodynamics, tectonics, geodynamics, tectonics, geodynamics, tectonic processes leading to segregation of continental-type rocks.

257. Seminar: Paleontology. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on the Phanerozoic of the Western U.S.

260. Field Seminar. (2 to 6) Seminar, three hours; discussion, two hours; field work. Requisites: courses 103B, 119. Recommended: course 141. Field-based teaching and discussion forum which varies in focus from general geology to specific problems from areas of geologic interest. Written reports required. May be repeated for credit. S/U or letter grading.

258A-258B-258C. Current Research in Geology. (2 to 4 each) May be repeated for credit. S/U grading.

265. Instrumentation, Data Processing, and Data Analysis. (4) Lecture, three hours. Principles, testing, and operations of magnetometers and other instruments. Data processing, display, and archiving. Time-series analysis techniques, including filtering. Fourier series, eigenanalysis, and power spectra.


270. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

270. Seminar: Time-Series Analysis. (2) Seminar, one to two hours. Discussion of techniques and recent research in spectral estimation, filtering, and signal detection applied to geophysical problems. S/U grading.


275A-295B-295C. Current Research in Earth and Space Sciences. (1-1-1) Limited to graduate Earth and space sciences students. Seminars presented by outside speakers, staff, and graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.


279. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dynamics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

280. Seminar: Time-Series Analysis. (2) Seminar, one to two hours. Discussion of techniques and recent research in spectral estimation, filtering, and signal detection applied to geophysical problems. S/U grading.

293A-293B-293C. Space Sciences Journal Club. (1-1) Seminar, one hour. Limited to graduate space sciences students in Earth and Space Sciences, Atmospheric and Ocean Sciences, and Physics and Astronomy Departments. Review of current space physics literature. May be repeated for credit. S/U grading.

295A-295B-295C. Current Research in Earth and Space Sciences. (1-1-1) Limited to graduate Earth and space sciences students. Seminars presented by outside speakers, staff, and graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

296A. Rock Deformation, Structural Geology, Tectonics.

296B. Geochemistry and Geophysics of Volcanic Processes.

296C. Seismology and Solid Earth Physics.

296D. Thermal Evolution of Lithosphere.

296E. Sedimentation and Tectonics.

296F. Geofluids.
C296C. Planetary and Orbital Dynamics.

C296H. Space Plasma Physics.

C296L. Earthquakes.

C296M. Metamorphic Petrology.

C296N. Magnetic Phenomena.

C296P. Planetary Physics.

C296Q. Martian Surface and Atmosphere.

C296R. Tectonics and Stratigraphy.

C296S. Chemical Geodynamics.

C296T. Paleobiology.

C296U. Geophysical Fluid Dynamics.

C296V. Geomorphology and Geological Physics.

C296W. Cosmochemistry.

C296X. Earthquakes and Earth Structure.

C296Z. Structural Geology. Tectonics. (Formerly numbered 296W.)


298. Advanced Topics in Earth and Space Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

M370A. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Physics M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower division year (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.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Physics M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: course M370A or Chemistry M370A or Physics M370A (or former course 370). 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 the University. 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) 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) May be repeated. S/U or letter grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 8) S/U grading.


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**East Asian Studies**

**Interdepartmental Program**

**College of Letters and Science**

UCLA

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Box 951487
Los Angeles, CA 90095-1487

(310) 825-5187, Undergraduate Office

e-mail: idps@international.ucla.edu

(310) 206-6571, Graduate Office
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http://www.international.ucla.edu/idps/eastasia/

David C. Schaberg, Ph.D., Chair

Faculty Advisory Committee

Kathryn Bernhardt, Ph.D. (History)
William M. Bodiford, Ph.D. (Asian Languages and Cultures)
Chi-Fun Cindy Fan, Ph.D. (Geography)
Hui-Shu Lee, Ph.D. (Art History)
Herbert E. Pflitschow, Ph.D. (Asian Languages and Cultures)
Shu-mei Shih, Ph.D. (Asian Languages and Cultures, Comparative Literature)
Carol F. Sorgenfrei, Ph.D. (Theater)
Richard E. Strassberg, Ph.D. (Asian Languages and Cultures)
James Tong, Ph.D. (Political Science)

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**Scope and Objectives**

East Asia is one of the most important regions of the world today with its ancient cultures, growing economies, technological progress, and increasing role in global affairs. As the focus of attention continues to shift toward Asia and the Pacific, new career opportunities open up requiring familiarity with the region. The East Asian Studies major is an interdepartmental and interdisciplinary area studies program divided into three areas of concentration — China, Japan, and Korea. While students primarily concentrate on one of the three countries, the major is intended to provide a comprehensive perspective on East Asian societies and cultures. Combining both social sciences and humanities approaches with language study, it is a highly flexible major that enables students to construct programs suited to a broad range of individual needs and career interests.

In addition to selecting from the large number of courses offered at UCLA, students are encouraged to participate in the Education Abroad Program (EAP) or other study abroad programs to enhance understanding of the region through direct contact with its peoples and cultures.

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**Undergraduate Study**

East Asian Studies B.A.

Two years of language, two preparation courses, and a total of 13 upper division courses are required. Students must take a minimum of nine courses in the area of their choice. The remaining four courses should be taken in another area of concentration within the major. No more than eight courses may be from a single department. Students should select the courses from the lists below. Courses on East Asia not listed below, offered only on a temporary basis, may also be applied toward the major.

**China Concentration**

Preparation for the Major

Required: Chinese 1, 2, 3, 4, 5, 6. History 11A or 11B, one lower division social sciences course in an area other than history (see the academic counselor for the list).

Transfer Students

Transfer applicants to the East Asian Studies (China) 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, one history of China course, and one lower division social sciences course in an area other than history.

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**


**Japan Concentration**

Preparation for the Major

Required: History 9C, Japanese 1, 2, 3, 4, 5, 6, one lower division social sciences course in an area other than history (see the academic counselor for the list).

Transfer Students

Transfer applicants to the East Asian Studies (Japan) 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, one history of Japan course, and one lower division social sciences course in an area other than history.

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


Korea Concentration

Preparation for the Major

Required: Korean 1, 2, 3, 4, 5, 6, 50, one lower division social sciences course (see the academic counselor for the list).

Transfer Students

Transfer applicants to the East Asian Studies (Korea) major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean, one Korean civilization course, and one lower division social sciences 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


Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The East Asian Studies Program offers the Master of Arts (M.A.) degree in East Asian Studies.

ECOLOGY AND EVOLUTIONARY BIOLOGY

College of Letters and Science

UCLA

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Victoria L. Sork, Ph.D., Chair

Professors

Clifford F. Brunk, Ph.D.
Donald G. Bath, Ph.D.
Arthur C. Gibson, Ph.D.
Elma González, Ph.D.
Malcolm S. Gordon, Ph.D.
Henry A. Hespenheide, Ph.D.
Glen M. MacDonald, Ph.D.
Kenneth A. Nagel, Ph.D.
Peter M. Narins, Ph.D.
Philip W. Rundel, Ph.D.
Thomas B. Smith, Ph.D.
Victoria L. Sork, Ph.D.
Charles E. Taylor, Ph.D.
Blaine Van Valkenburgh, Ph.D.
Robert K. Wayne, Ph.D.
Eduardo Zeiger, Ph.D.
Cheryl Ann Zimmer, Ph.D.
Richard K. Zimmer, Ph.D.

Professors Emeriti

Albert A. Barber, Ph.D.
George A. Bartholomew, Ph.D.
Joseph Casper, Ph.D.
Martin L. Cody, Ph.D.
Nicholas E. Collias, Ph.D.
Willbur T. Ebersold, Ph.D.
Eric B. Edney, Ph.D.
Franz Engelmann, Ph.D.
William M. Hamner, Ph.D.
Thomas R. Howell, Ph.D.
J. Lee Kavanau, Ph.D.
F. Harlan Lewis, Ph.D.
O. Raynal Lunt, Ph.D.
Austin J. MacInnis, Ph.D.
Leonard Muscalup, Ph.D.
Park S. Nobel, Ph.D.
Richard W. Siegel, Ph.D.
Henry J. Thompson, Ph.D.
Peter F. Vaughn, Ph.D.

Associate Professors

Daniel T. Blumstein, Ph.D.
Peggy M. Fong, Ph.D.
David K. Jacobs, Ph.D.
Peter N. Nonacs, Ph.D.
Richard R. Vance, Ph.D.

Assistant Professors

Gregory F. Grether, Ph.D.
Nicolas Gruber, Ph.D.
Rebecca F. Shipe, Ph.D.

Adjunct Professors

John E. Heyning, Ph.D.
Jon E. Keeley, Ph.D.

Adjunct Associate Professor

Joy W. Martin, Ph.D.

Adjunct Assistant Professors

David A. Kizirian, Ph.D.
Raymond M. Sauvageot, Ph.D.

Scope and Objectives

Organismic biology touches every aspect of modern life, and understanding how living organisms are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Department of Ecology and Evolutionary Biology offers undergraduate and graduate instruction at all levels of biology — from regulatory and physiological processes within organisms through the natural ecology and behavior of living organisms and to the population and community dynamics of multiple species. All of these subject areas address practical problems facing the world today, and all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

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 Arts and Ph.D. degrees provide opportunities for advanced, concentrated study. The Master of Arts 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 four different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; Marine Biology; and Plant 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 three majors — Ecology, Behavior, and Evolution, Marine Biology, and Plant Biology — provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

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:** Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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_tr.htm](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Two morphology and systematics courses 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:** Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A (31A, 31B, and 32A must be taken to satisfy the calculus requirement); Physics 1A, 1B, 1C, 4AL, and 4BL or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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, preferably equivalent to Life Sciences 1 and 2, 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](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**Ecology, Behavior, and Evolution B.S.**

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:** Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A (31A, 31B, and 32A must be taken to satisfy the calculus requirement); Physics 1A, 1B, 1C, 4AL, and 4BL or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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, preferably equivalent to Life Sciences 1 and 2, 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](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** One morphology and systematics course (Ecology and Evolutionary Biology 103, 105, 110, or 130); one physiology course (Ecology and Evolutionary Biology 146, 162, or Physiological Science 166); three ecology, behavior, and evolution courses (Ecology and Evolutionary Biology C119, 120, 122, 129, C135); one field quarter consisting of two to four courses from the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or equivalent; Chemistry and Biochemistry 153A, 153L; two additional upper division courses in chemistry, ecology and evolutionary biology (except Ecology and Evolutionary Biology 192A, 192B, 195), geography, geology, mathematics (except Mathematics 106), microbiology, or physics (recommended: taxon-oriented courses such as Ecology and Evolutionary Biology 111, 112, 113A, 114A, 115, 152; other courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 116, 117, 122, M127, 128, 134A, in addition to courses listed above).

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors, are graduating seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

Courses 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 10 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 prior to applying for the Marine Biology Quarter. Consult the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

**Marine Biology B.S.**

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: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Earth and Space Sciences 15 or Atmospheric Sciences 1; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Chemistry and Biochemistry 153A, Ecology and Evolutionary Biology 109; one laboratory course (Ecology and Evolutionary Biology 110, M158, or 181); one marine organismic biology course (Ecology and Evolutionary Biology 101, 105, 112, or 137); one physiology course (Ecology and Evolutionary Biology 128, 162, or Physiological Science 166); one ecology, behavior, and evolution course (Ecology and Evolutionary Biology 116, C119, 120, 122, 129, C135, or 136); one field quarter course involving research (Ecology and Evolutionary Biology 118, 124, 128, or 148) or a laboratory internship (Ecology and Evolutionary Biology 198 series or 199) which requires a written paper on some aspect of plant research; two additional upper division courses in chemistry, computer science, ecology and evolutionary biology (except Ecology and Evolutionary Biology 192A, 192B, 195), geography, microbiology, or molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 192A, 192B).

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 10 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 prior to applying for the Marine Biology Quarter. Consult the Undergraduate Advising Office for all requirements for the Marine and Field Biology Quarters.

Plant Biology B.S.

The Plant Biology major prepares students for postgraduate programs and careers in plant biology, including environmental biology, ecology, agricultural sciences, plant physiology, and cellular biology. Students select key courses to obtain a broad foundation in plant biology, learning state-of-the-art research techniques. They are also given opportunity to participate in individual supervised research projects using plants as experimental organisms.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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 Plant 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_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Chemistry and Biochemistry 153A, Ecology and Evolutionary Biology 146 or 162; one laboratory course (Ecology and Evolutionary Biology 101, 103, 105, 110, M158, 162, or Physiological Science 166); one plant morphology or anatomy course (Ecology and Evolutionary Biology 101, 103, or 152); two molecular or cellular plant biology courses (Ecology and Evolutionary Biology 121, Molecular, Cell, and Developmental Biology C141, C150, M170); one ecology or evolution course (Ecology and Evolutionary Biology 120, 122, 128, or 130); one field quarter course involving research in plant biology (Ecology and Evolutionary Biology 118, 124, 128, or 148) or a laboratory internship (Ecology and Evolutionary Biology 198 series or 199) which requires a written paper on some aspect of plant research; two additional upper division courses in chemistry, computer science, ecology and evolutionary biology (except Ecology and Evolutionary Biology 192A, 192B, 195), geography, microbiology, or molecular, cell, and developmental biology (except Molecular, Cell, and Developmental Biology 192A, 192B).

A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses applied toward requirements for preparation for the major and the major must be taken for a letter grade. Plant 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.

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, 124, 125, 126, 131, 132, and 134B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 104, 106, 123, 147, 148, 163, 164, and 165. 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
Computing Specialization

Majors in Biology, Ecology, Behavior, and Evolution, Marine Biology, and Plant 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 M166B, Ecology and Evolutionary Biology C159, Geography 168, 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.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Biology.

Ecology and Evolutionary Biology

Lower Division Courses

10. Plants and Civilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin of crop plants; man's role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

11. Biomedical Research Issues in Minority Communities. (5) Discussion, four hours. Limited to 30 students. Discussions and student presentations on biomedical research as it affects minority communities, with emphasis on methodology, design, consequences, and ethics of current research. Discussion leaders provide information on preparation and training for research careers. P/NP or letter grading.

12. Biodiversity and Extinction: Crisis and Conservation. (4) Lecture, three hours; discussion, one hour. Examination of ecological and evolutionary principles necessary to understand nature and importance of worldwide environmental crisis. Research by students of specific conservation issues and presentation of results to class. P/NP or letter grading.

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.


21. Field Biology. (4) Lecture, three hours; discussion, two hours; field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open 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. Marine Biology. (5) Lecture, three hours; discussion, two hours; field trips, two hours. Not open to students with credit for Earth and Space Sciences 185A, 186A, 215A, 215B, 258A, or 258B. 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 advisor. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.

97. Variable Topics in Ecology and Evolutionary Biology. (1 to 4 Seminar, three to twelve hours. Current issues in research in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

Upper Division Courses

100. Introduction to Ecology and Behavior. (5) Lecture, three hours; discussion, two hours. Required: Life Sciences 1. Not open to students with credit for course 118, C119, 122 through 126, 129, 131 through 134B, 136, C151A, 151B, 154, M185A, or M185B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities and ecosystems, biogeography, and behaviors animals use to find food, choose mates, and interact in social groups. Understanding scientific method, critical evaluation of research papers, and development of scientific writing skills. Letter grading.

101. Marine Botany. (6) (Formerly numbered 101A.) Lecture, four hours; laboratory, six hours. Three to four field trips. Required: Life Sciences 1. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plant Evolution and Systematics. (5) Lecture, three hours; laboratory, three hours; field trips. Required: Life Sciences 1, 4. Evolution, systematics, morphology, principles of taxonomy, phytogeography, phylogenetic analysis, specialization, and natural history of plants. Letter grading.

104. Experimental Invertebrate Zoology. (6) Formerly numbered C104.) Lecture, two hours; laboratory, two hours. Required: Life Sciences 1. Advanced treatment of physiology, behavior, and ecology of invertebrates, with emphasis on independent laboratory and field investigations. P/NP or letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory/field trips, six hours. Required: Life Sciences 1. Introduction to systematics, evolution, natural history, morphology, and physiology of invertebrates.


110. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Required: Life Sciences 1, 2, 3, 4. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and paleontology. Laboratory study of selected vertebrates.

111. Biology of Vertebrates. (5) Lecture, three hours; laboratory, three hours; four one- to two-day field trips. Required: Life Sciences 1. Adaptations, behavior, and ecology of vertebrates. Letter grading.

112. Ichthyology. (6) Lecture, three hours; laboratory, six hours; field trips. Required: Life Sciences 1. Highly recommended: courses 110, 111, Biology of freshwater and marine fishes, with emphasis on their evolution, systematics, morphology, zoogeography, and ecology. Field trips examine fishes of the Southern California shoreline, tidalpools, and coastal streams. Letter grading.

113A. Herpetology. (5) Lecture, three hours; laboratory, three hours; field trips, three and one half days per term. Required: Life Sciences 1. Recommended: course 100. Vertebrate zoology course restricted to biology of reptiles and amphibians of the world, covering current systematics, ecology, behavior, morphology, and physiology of these animals. Letter grading.

113B. Field Herpetology. (8) Required: Life Sciences 1. Recommended: courses 100, 111. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of reptiles and amphibians in their natural habitat. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.

114A. Ornithology. (5) (Formerly numbered 114.) Lecture, three hours; laboratory/field trips, three hours. Required: Life Sciences 1. Systematics, distribution, physiology, behavior, and ecology of birds. 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.


117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Requisite: course 110. Recommended: one general geology course. Fossil record of the evolution of vertebrates, with emphasis on paleontology and morphology of tetrapods. P/NP or letter grading.

118. Plant Adaptations. (8) Lecture, one hour; field trip, 10 hours. Requisite: course 100. Five-week course offered only as part of Field Biology Quarter. Field-oriented introduction to mechanisms by which vascular plants adapt themselves to their abiotic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.


C119L. Mathematical Ecology Laboratory. (2) Laboratory, two hours. Corequisite: course C119L. Formal instruction in Mathematica software used to provide powerful and versatile tool to solve diverse quantitative problems in ecology and life and physical sciences. Concurrently scheduled with course C219L. Letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, Mathematics 3A and 3B, or 31A. Designed for departmental majors specializing in environmental and population biology. Introduction to mechanisms and processes of evolution, with emphasis on natural selection, population genetics, speciation, evolutionary rates, and patterns of adaptation. P/NP or letter grading.

121. Molecular Biology and Evolution. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. Molecular biology, with emphasis on evolutionary aspects. DNA replication, RNA transcription, protein synthesis, gene expression, and molecular evolution. Letter grading.

122. Ecology. (4) Lecture, three hours; discussion, two hours. Requisite: course 100, Life Sciences 1. Mathematics 3B or 31A. Highly recommended: Mathemat- ics 31B, 32A. Designed for departmental majors specializing in environmental and population biology. Introduction to population and community ecology, with emphasis on growth and distributions of populations, interactions between species, and structure, dynamics, and functions of communities and ecosystems. P/NP or letter grading.

123. Marine Ecology. (4 or 8) Lecture, five hours; laboratory, 15 hours. Recommended requisites: courses 100, 122. Offered either as a four-unit or as a four-unit five-week intensive course given off campus as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading.

124. Field Ecology. (4 or 8) Lecture, two hours; laboratory/field trip, 10 hours. Requisites: course 100, Life Sciences 1. Recommended: courses 111, 120, 122. Offered either as a four-unit quarter-long course with weekend field trips or as a single field trip course. One-hour seminar meets following lectures and tutorials for three weeks. When course is given as part of Field Biology Quarter, it is 8 units and lasts for five weeks. Field and laboratory research in ecology; collection, analysis, and write-up of numerical data, with emphasis on design and execution of field studies. Letter grading.

125. Tropical Animal Communication. (4 or 8) (Formerly numbered C125.) Requisites: course 100, Life Sciences 1. Offered either as a four-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, tropical vertebrate biology, and information processing systems. 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) (Formerly numbered C126.) Requisites: course 100, Life Sciences 1. Mathematics 3C or 32A. Recommended: course 129. Offered 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, behavioral, morphological, and evolutionary principles as they apply to individuals and populations. Letter grading.

129. Five-week course offered only as part of Field Biology Quarter, it is 8 units and lasts for five weeks. Field and laboratory research in ecology; collection, analysis, and write-up of numerical data, with emphasis on design and execution of field studies. 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. Insect Ecology. (4 or 8) Lecture, two hours; laboratory or field trip, eight hours. Requisites: course 100, Life Sciences 1. Recommended: courses 120, 122. Offered either as a 4-unit quarter-long course with weekend field trips or as an 8-unit Field Biology Quarter course with amount of fieldwork increased accordingly. Analysis of ecological roles of insects in terrestrial communities, with emphasis on interactions of plants with both plants and vertebrates. Group and individual field projects. Letter grading.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/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 animal communication. Design and execution of individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; laboratory, two hours; one field trip per term. Requisite: Life Sciences 1. Recommended: course 100. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in arid habitat. Letter grading.

134B. Field Physiological Ecology of Desert Animals. (8) Field course. Requisites: course 122. Recommended: course 100. Two weeks of off-campus research projects with two-week lecture course (four hours per day) and offered only as part of Field Biology Quarter. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in an arid habitat. 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. Mathematical 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: Chemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL, Life Sciences 1, 2, 3. Chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on applications to cell biology, physiology, and ecology. P/NP or letter grading.
M139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric and Oceanic Sciences M105.) Lecture and laboratory 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 the past and present. Cycles of major and minor ocean constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon), and investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes. Letter grading.

M145. Advanced Paleontology. (4) (Formerly numbered CM145A and Space Sciences M118.) Lecture, three hours. Requisite: course 110 or 117 or Earth and Space Sciences 116. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.

146. Physicochemical Biology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1, 2, 3, Physics 1C and 4BL, or 6C or 6CH, Physicochemical analysis of physiology of cells and organs, membranes, thermodynamics of solute and water movement, light absorption, and subcellular energy transaction. Letter grading.

147. Biological Oceanography. (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 1A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL, Life Sciences 1, 3. Lectures include physical, chemical, and biological factors affecting abundance and distribution of organisms in marine environment. Laboratory includes experimental studies of local marine organisms, with emphasis on primary and secondary production and nutrient flux. Letter grading.


C151A. Tropical Ecology. (4) Lecture, four hours. Requisite: course 100, Life Sciences 1. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of a range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance regimes. Concurrently scheduled with course C221A. P/NP or letter grading.

151B. Field Tropical Ecology. (8) (Formerly numbered C151B.) 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 Option to biodiversity, community structure, and dynamics and ecosystem function in tropical forest habitat. Letter grading.

152. Functional Plant Anatomy. (5) Lecture, three hours; laboratory, three hours. Requisites: Life Sciences 1, 2, 3, 4. Structure and functional significance of various cell and tissue types in higher plants, plus patterns of growth and differentiation in roots, stems, leaves, flowers, and fruits. P/NP or letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory, four hours. Requisite: Life Sciences 1. Recommended: course 100. Introduction to structure, biodiversity, and dynamics of California ecosystems, with focus on Southern California, and impact of human activities on these systems. P/NP or letter grading.

157. Functional Integrated Histology. (6) Lecture, three hours; laboratory, four hours. Requisites: Chemistry 14C or 30BL, 153A, Life Sciences 1, 2, 3, 4, Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Structure and function of cell and extracellular matrix as basic building blocks of tissues and organs, structural specializations of cells and their interaction and function in major tissues, how cells and tissues are structurally and functionally linked in organs. Letter grading.


C159. Computational Biology. (4) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 1, 4. Introduction to computational biology. Topics include statistical and mathematical analysis, computer simulation, use of Internet for remote databases, and connections to supercomputers, with emphasis on biological applications and individual or group projects. Concurrently scheduled with course C275. Letter grading.

162. Plant Physiology. (6) Lecture, four hours; laboratory, four hours. Requisites: Life Sciences 1, 2, 3. Basic aspects of plant function, including photochemical, biochemical, and physiological aspects of photosynthesis, Carbon, Nitrogen, Mineral, and Water (C3N2M2O), and its regulation; organellar interactions and compartmentation. Water relations, ion transport, flowering, hormone action, and plant responses to stress. Letter grading.


165. Ecological Physiology of Marine Vertebrates. (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 1A and 14BL, or 20B and 30AL, Life Sciences 1, 3. Recommended: Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Introduction to physiological adaptations of marine vertebrates to major physicochemical variables in the oceans of the world and to major marine habitats. Given off campus at a marine science center. Letter grading.

166. Marine Phytoplankton Physiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2. Key physiological processes, with emphasis on photosynthesis, carbon and nutrient uptake, mineralization, and toxin production of key components of marine phytoplankton, such as cyanobacteria, diatoms, dinoflagellates, and coccolithophores. Letter grading.

170. Animal Environmental Physiology. (6) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, Mathematics 3C or 32A, Physics 1C and 4BL, or 6C or 6CH. Not open for credit to students who have credit for Physiological 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.
Graduate Courses

M200A. Evolutionary Biology. (4) Same as Earth Science 117A. Lecture, two hours; discussion, two hours. Prerequisites: course 122, Life Sciences 1. Corequisite: course 198C. Laboratory, one hour; discussion, one hour. Designed for graduate students. Focus on the nature and processes of evolutionary change, with an emphasis on the biological diversity of marine communities.

M217. Marine Ecology. (4) Lecture, four hours; discussion, one hour. Corequisite: course 208B. Designed for graduate students. Focus on the structure and functioning of marine ecosystems, with an emphasis on the role of biotic and abiotic factors in shaping marine communities.

M218. Oceanography. (4) Lecture, four hours; discussion, one hour. Corequisite: course 216. Designed for graduate students. Focus on the physical and chemical processes that shape the oceans, with an emphasis on the role of oceanography in understanding the Earth's climate system.


M231. Molecular Evolution. (4) Same as Earth and Space Sciences M217. Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with special emphasis on the role of molecular processes in shaping the evolution of marine organisms.

M235. Marine Microbiology. (4) Lecture, four hours; laboratory, eight hours. Corequisite: course 114A. Laboratory involves examination of the microbial diversity of marine substrates and their biological significance; laboratory, eight hours. Preparation: background in molecular biology. Independent project required. Given off campus at a marine science center.

270. Seminar: Environmental Physiology. (2) S/U grading.


273. Seminar: Entomology. (2) 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.


275. Computational Biology. (4) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 4, 1, and Introduction to computational biology. Topics include statistical and mathematical analysis, computer simulation, use of Internet for remote databases, and connection to supercomputers, with emphasis on biological applications and individual or group projects. Concurrently scheduled with course C159.

279. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requisite: course C275. Emphasis on a particular issue in evolutionary biology, varying in topic from year to year. 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) Requisite: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit.

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 experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.

M290. Seminar: Comparative Physiology. (2) (Same as Physiological Science M290.) Seminar, two and one-half hours. Discussion of specific topics in comparative physiology of animals. Topics vary from year to year, with emphasis on systems physiology, neuroethology, or behavioral physiology. S/U or letter grading.

291. Seminar: Physiology and Biochemistry of Arthropods. (2) Seminar, two hours. S/U or letter grading.

296. Seminar: Integrative Biology — Cellular, Organismic, and Population. (1 to 4) Discussion, three hours. Advanced study and analysis of current topics in cellular, organismic, and population biology. Discussion of current research and literature in research specialty of faculty member teaching course S/U grading.

297. Selected Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to three hours. Advanced study and analysis of variable research topics in research issues in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Parasitology. (2) Seminar, two hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personel employment, teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Preparation for Teaching Biology in Higher Education. (2) Seminar, to be arranged. Designed for graduate students. Study of problems and methodologies in teaching biology, which includes workshops, seminars, apprentice teaching, and peer observation. S/U grading.

496. Preparation for Teaching Biology in Higher Education. (2) Designed for graduate students. Strongly recommended as sequel to course 495 discussions on teaching, teacher development, and advanced skills. Study of methods and approaches to teaching of specific areas in biology, with emphasis on laboratory teaching, instructor/student interaction, and undergraduate motivation. S/U grading.

596. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. Letter grading.

596F. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. Given off campus at a marine science center.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.


Kenneth L. Sokoloff, Ph.D.
Duncan Thomas, Ph.D.
Earl A. Thompson, Ph.D.
Aaron Tornell, Ph.D.
Carlos A. Vegh, Ph.D.
William R. Zame, Ph.D.

Professors Emeriti
Aren M. Aichian, Ph.D.
William R. Allen, Ph.D.
Masanao Aoki, Ph.D.
John F. Barron, Ph.D.
Robert W. Clower, D.Litt.
Harold Demsetz, Ph.D.
George W. Hilton, Ph.D.
Werner Z. Hirsch, Ph.D.
Jack Hirshleifer, Ph.D.
Michael D. Intriligator, Ph.D.
Benjamin Klein, Ph.D.
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Associate Professors
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Sule Ozler, Ph.D.

Assistant Professors
Sandra E. Black, Ph.D.
Ariel T. Burstein
Hongbin Cai, Ph.D.
Matthias Doepke, Ph.D.
Raffaella Giacomini, Ph.D.
Patrik Guggenberger, Ph.D.
Christian Hellwig, Ph.D.
Seema Jayachandran, Ph.D.
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Scope and Objectives
The economics undergraduate program is designed for students who wish to gain a thorough understanding of both empirical and theoretical approaches to economics. Emphasis is on economic principles applied to resolving interpersonal conflicts of interest and coordinating productive activity in a world of scarce resources. Because students must gain a thorough theoretical and technical competence before extensive study of the applied specializations in the discipline, the analytic core of the major in Economics is closely structured. Some courses are appropriate for nonmajors, but the curriculum is most suitable for students who wish to make the study of economics the primary focus in their undergraduate education.

The undergraduate major provides analytical training in reference to socioeconomic phenomena and provides an excellent theoretical background for those pursuing graduate education in economics, law, management, public administration, journalism, social welfare, architecture, and urban planning, and education.

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 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.

Preconomics Major
While students are completing the lower division preparation courses for the major, they may be classified as Preconomics majors.

Preparation for the Major
Required: Economics 1, 2, 11, Statistics 11; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E. All courses 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 Statistics 11 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: Nine upper division courses in economics which must include Economics 101, 102, and one course from at least three different fields in economics selected from the major fields listed below. All courses must be taken for a letter grade. Economics 100, 110, and 120 may not be included among the nine upper division courses. One or two of the nine courses may be selected from Management 120A, 120B, 130A, 130B.

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 and 102. Transfer credit is subject to department approval; consult an undergraduate counselor before enrolling in any courses for the major.

Major Fields
Economics theory (courses 101, 102, 105AH, 105BH, 106G, 106P, 107, 138, 139, 187); statistics, mathematical economics, and econometrics (courses 103, 141A, 141B, 141C, 142, 143, 144, 145, 146, 147A, 147B, 148); economic development (courses 111, 112); international economics (courses 121, 122); public finance (courses 130, 133, 134A, 134B, M135, M136); regional economics (course 137); labor economics (courses 150, 151, 152); money and banking (courses 106F, 160, 161); government and industry (courses 106E, 106I, 170, 171, 172); economic institutions (courses 106H, 180, 181A, 181B, 183).

Economics B.A./Applied Economics M.S. Dual Program
An intercampus dual degree program has been established between UCLA and UC Santa Cruz that 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 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).

Note: 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.

**Prebusiness Economics Major**

While students are completing the preparation courses for the major, they may be classified as Prebusiness Economics majors. (Transfer students who wish to enter UCLA as Prebusiness Economics majors 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, 101, Statistics 11; one Writing II course or English Composition 129B; Management 1A, 1B; Mathematics 31A, and 31B or 31E. All courses 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 Statistics 11 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval.

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, and at least two courses from 106 series; three other upper division courses in economics in at least two different fields (Economics 100, 110, and 120 may not be included as electives); four upper division courses from Management 108, 120A, 120B, 122, 123, 124, 126, 127A, 127B, 130A, 130B, 140. 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.) All upper division major courses must be taken for a letter grade.

**Economics/International Area Studies B.A.**

The 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. All courses 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.

**Preconomics/International Area Studies Major**

While students are completing the preparation courses for the major, they may be classified as Preconomics/International Area Studies majors.

**Preparation for the Major**

Required: Economics 1, 2, 11, 101, 102, Statistics 11; Mathematics 31A, and 31B or 31E. Students also must complete at least the first year of a modern foreign language related to their concentration. Students may not be included as electives. The four remaining upper division courses are social sciences courses related to the concentration and must be chosen 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 noneconomics courses, the research paper, and the language learned must show consistency of purpose.

One or two courses from Management 120A, 120B, 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. All major courses must be taken for a letter grade.

**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, 106A, 106B, Jewish Studies 142, Political Science 132A, 137, Sociology 187, Turkish 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 honors 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
Majors in Economics, Business Economics, and Economics/International Area Studies 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, Mathematics 61 or 113, and two courses from Program in Computing 10C, 15, 20A, 20B, 30, 40A, 60, and (3) completing at least two courses from Economics 103, 106P, 141A, 141B, 141C, 143, 147A, 147B, 151, with the additional provision that the courses taken must make substantial use of computers. A grade of C– or better is required in each course, with a combined grade-point average of at least 2.0. 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://www.gdnnet.ucla.edu. 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.) 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 course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on aggregative economic analysis, including national income, monetary and fiscal policy, and international financial analysis.

2. Introductory Economics. (4) Lecture, three hours. Not open to students with credit for course 100. Principles of economics as tools of analysis. Presentation of a set of concepts with which to analyze a wide range of social problems that economic theory illuminates. May not be used to fulfill entry requirements for any Economics Department major.

11. Macroeconomic Theory. (4) Lecture, three hours; discussion, one hour. Enforced prerequisites: 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.

Upper Division Courses
100. Economic Principles and Problems. (4) Lecture, three hours. Designed for juniors/seniors. Not open to students with credit for course 1, 2, or 5. Principles of economics with application to current economic problems. May not be used to fulfill entry requirements for any Economics Department major.

101. Microecononic 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 optimal allocation of resources; interest and capital.


103. Introduction to Econometrics. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: course 11. Introduction to theory and practice of econometrics, with goal to make students effective consumers and producers of empirical research in economics. Emphasis on intuitive understanding rather than on rigorous arguments; concepts illustrated with applications in economics. P/NP or letter grading.

105AH. Topics in Microeconomics (Honors). (4) Lecture, three hours. Requisite: course 101. Designed for departmental honors program students. Introduction to Walrasian and Nash equilibrium. Modeling of selected applied topics such as peak load pricing, pricing of externalities, strategic pricing.


106E. Economics of Entrepreneurship. (4) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics majors. Application of economic theory to practical problems of organizing new businesses — combining elements of strategy, marketing, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Letter grading.

106G. Introduction to Game Theory. (4) Lecture, three hours; discussion; one to two hours (when scheduled). Enrolled priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of issues 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.

106H. Enterprise, Technology, and Entrepreneurship in Antiquity to the 19th Century. (4) (Formerly numbered 184.) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics majors. Not open for credit to students with credit for former course 184. Study of role of innovation in history of American enterprise. Examination of specific episodes of salient entrepreneurial innovation, as well as general theoretical and empirical treatments. Letter grading.


106P. Pricing and Strategy. (4) (Formerly numbered 104.) Lecture, three hours. Requisite: course 101. Enrollment priority to Business Economics majors. Not open for credit to students with credit for former course 104. Advanced pricing topics typically include linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Letter grading.

106V. Investments. (4) Lecture, three hours. Requisite: course 102. Recommended: course 106F. Enrollment priority to Business Economics majors. Intro- duction to principles investment and portfolio theory. Topics include optimal portfolio construction, fixed income analysis, option pricing theory, and active portfolio management. P/NP or letter grading.

107. History of Economic Theory. (4) Lecture, three hours. Requisite: course 1 or 100. Survey of economic analysis from Grecian antiquity to the early 20th century, concentrating on 18th and 19th century; special attention to selected writers, including Aristotle, mercantilists, Physiocrats, Hume, Smith, Malthus, Ricardo, Marx, marginalists, and Marshall.

110. Economic Problems of Underdeveloped Countries. (4) Lecture, three hours. Requisite: course 1 or 100. Limited to non-Economics Department majors. Not open for credit to students with credit for course 111 or 112. Survey of major issues of development economics. Economic structure of low-income countries and primary causes for their limited economic growth. Economic goals and policy alternatives open to their leaders. Possible roles of developed countries. May not be applied toward any Economics Department major.

111. Theories of Economic Growth and Development. (4) Lecture, three hours. Requisite: course 11. Growth models, theory of production under constraints, relative factor prices and their impact on choice of technology, investment criteria, role of the market, economic planning in less developed areas.


113. Gender and Development in Globalizing World. (4) Seminar, three hours. Requisites: courses 11, 101, 102. Designed for juniors/seniors. Critical examination of theoretical debates and discussion of empirical evidence on issues pertaining to current debates on gender, globalization, and development. Topics include household economics; bargaining and gender roles in the household; gender and unpaid labor relations; education and health; gender differences in wages and employment; trade, multinational, and feminization; structural adjustment and poverty; gender economics of agriculture and policy. P/NP or letter grading.

120. International Economics. (4) (Formerly numbered 190.) Lecture, three hours. Requisite: course 1 or 100. Limited to non-Economics Department majors. Not open to students with credit for course 121 or 122 or former course 191 or 192. General introduction to international economics, based on examination of theory of trade and means and significance of balance of payments transactions. Discussion of major issues of international commercial and monetary policy confronting national and international agencies. May not be applied toward any Economics Department major. P/NP or letter grading.

121. International Trade Theory. (4) (Formerly numbered 191.) Lecture, three hours; discussion, one hour. Requisite: course 101. Not open to students with credit for course 120 or former course 190. Theoretical analysis of world trade, terms, volumes, and gains of trade. Effects of tariffs, quantitative restrictions, and international integration. Effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

122. International Finance. (4) (Formerly numbered 192.) Lecture, three hours; discussion, one hour. Requisite: course 102. Not open to students with credit for course 120 or former course 190. Emphasis on interpretation of balance of payments and adjustment to national and international equilibria through changes in price levels, exchange rates, and national income. Examination of international payments, determination of exchange rates under various monetary standards, capital movements, exchange controls, and international monetary organization. P/NP or letter grading.

C126A-C126B-C126C. Seminars: International Economics. (4-4-4) Seminar, three hours. Requisites: courses 11, 102. Limited to seniors. Overview of current developments in international economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation of recent literature and discussion of new papers. Research in progress and work-in-progress. Preparation required: prior political science courses. P/NP or letter grading.


131. State and Local Finance. (4) Lecture, three hours. Requisites: courses 101, 130. Division of func- tions and revenues between state and local governments; revenues, expenditures, and indebtedness of these governments. Analyses of state and local tax systems.

134A. Environmental Economics. (4) Lecture, three hours; discussion/quiz, one hour. Requisite: course 101. Application of economic theory to natural and environmental resources problems. Topics include sustainability and natural resource scarcity; steady-state models for renewable resources (land and water, fisheries, forests), externalities and pollution (including use of incentives for pollution control) and nonrenewable resources (minerals). P/NP or letter grading.

134B. Economics of Environmental Regulation. (4) Lecture, three hours; discussion, one hour. Requisite: course 134A. Social choice theory, efficiency and markets, public goods and externalities, property rights, Pigouvian fees, marketable permits, legal solutions, limit and uncertainty, international and interre- gional competition, economy-wide effects of environment regulations, and the environmental demand theory. P/NP or letter grading.

M135. Economic Models of Public Choice. (4) (Same as Political Science M106.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: any lower division political science course. Enforced requisite: course 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective choices through political mechanisms. Topics include free-rider problem, voting and majority choice, demand revelation, and political bargaining.


137. Introduction to Urban and Regional Economies. (4) (Formerly numbered 120.) 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.


139. Economics of Energy. (4) (Formerly numbered 188B.) Seminar, three hours. Requisite: course 102. Topics include pricing and taxation of exhaustible resources, interactions between energy and econo- my, institutions such as OPEC, oil cartels, oil and gas, oil and public policy, oil and property rights, Pigouvian fees, marketable permits, oil debt and balance of payments, energy conserva- tion, and future technologies. Letter grading.

141A. Mathematical Finance A. (5) Lecture, three hours; computer laboratory, one hour. Requisites: course 11, Mathematics 33A, either Statistics 100A or 100B, 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.

141B. Mathematical Finance B. (5) Lecture, three hours; computer laboratory, one hour. Requisite: course 141A. Capital asset pricing model, multiperiod discrete-time security market model, efficient mar- kets, dynamic spanning and market completeness, mathematical models of options, futures, and deriva- tives. P/NP or letter grading.

141C. Mathematical Finance C. (5) Lecture, three hours; computer laboratory, one hour. Requisite: course 141B. Models of term structure of interest rates, interest rate derivatives, optimal consumption and in- vestment. Equity premium puzzle, bubbles. P/NP or letter grading.

142. Probabilistic Microeconomics. (4) Lecture, three hours. Requisite: course 101. Combination of basic probability introduced in Statistics 11 with microeconomic models presented in courses 11 and 101 in order to explain phenomena such as insur- ance, job search, and stock market behavior. Optimal production and consumption under uncertainty. Re- view of probability and introduction to alternative measures of risk and risk aversion. P/NP or letter grading.
143. Applied Regression Analysis. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open to students with credit for course 147A or 147B. Estimation and inference in multiple regression model; violations of assumptions of classical model (heteroskedasticity, unobserved heterogeneity, measurement error); introduction to limited dependent variable and time-series models. Emphasis on applications of regression analysis and interpretation. P/NP or letter grading.

144. Introduction to Mathematical Methods in Economics. (4) Lecture, three hours. Preparation: one linear or matrix algebra course, and one introductory course in the social sciences. Not open to students with credit for Mathematics 164 or Electrical Engineering 136. Possible topics include duality theory of linear programming and simplex algorithm, input/output analysis, and two models of urban development. C146A-C146B-C146C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different 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 C266A-C266B-C266C. P/NP or letter grading.


183. Development of Economic Institutions in the U.S. (4) Lecture, three hours. Requisite: course 11. Study of changing economic conditions in the U.S. from frontier conditions to the present and the effects of these changes on American society. P/NP or letter grading.

186A-C186B-C186C. Seminars: Economic History. (4) Seminar, three hours. Requisites: courses 11, 101, 102. 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 critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C246A-C246B-C246C. P/NP or letter grading.

187. Upper Division Research Seminar: Applications of Economic Theory. (4) (Formerly numbered 186C-188Z.) Seminar, three hours. Requisites: courses 11, 101. Limited to senior departmental majors and advanced graduate students. Introduction to modeling and analysis of dynamic systems, with emphasis on examples from social and life sciences. Linearity, impulse responses, stability, state variables, algorithms for filtering and control.

188. Internship. (1-1-1) Lecture, one hour. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.

195A-195B. Community or Corporate Internships in Economics. (2-2-2) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. This course is designed to provide students with a supervised work experience in community or corporate settings. Credit is given for up to two terms in which students develop honors theses. Students meet on regular basis with instructor and provide periodic reports of their experiences. May not be applied toward major requirements. Only 8 units from courses 195A and 195B may be applied toward undergraduate degree. Individual contract with supervising faculty member required. P/NP grading.

198A. Honors Research in Economics I. (4) For- formerly numbered 199A.) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-term sequence in which students develop honors theses 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) (Formerly numbered 199B.) Seminar, 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.

203A. Probability and Statistics for Econometrics. (4) Lectures, three hours. Introduction to statistical tools necessary to understand econometric techniques. Random variables, distribution and density functions, sampling, estimators, estimation techniques, hypothesis testing, and sampling. Use of econometric problems and examples. S/U or letter grading. 


204A-204Z. Applications of Economic Theory. (4 each) Lectures, three hours. Applications of economic theory and models necessary to understand econometric techniques. Random variables, distribution and density functions, sampling, estimators, estimation techniques, hypothesis testing, and sampling. Use of econometric problems and examples. S/U or letter grading. 

205. Economic Modeling. (4) Lecture, three hours. Development of modeling skills by considering a sequence of economic issues (e.g., peak load pricing, regulation, monopoly, capital asset pricing, Pareto efficiency). Emphasis on multivariate constrained optimization. S/U or letter grading. 

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments from the 1870s, including contributions of major figures of the marginalist revolution, the socialist controversy, and history of welfare economics. S/U or letter grading. 

211A-211B. Economics of Uncertainty, Information, and Games. (4-4) Lecture, three hours. Preparation: introductory probability.  

211A. Theory of the Firm and Consumer. (4) Lecture, three hours. Should be taken prior to or concurrent with course 211B. 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 or letter grading. 


212A-212B. General Equilibrium Theory. Requisite: course 211A. Theory of individual decision making under uncertainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading. 

212A. General Equilibrium Theory. Requisite: course 211A. Theory of individual decision making under uncertainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading. 


212C. Topics in Advanced Theory. (4 each) Lecture, three hours. Recent research in microeconomic theory. Content varies. Courses in this sequence not ordinarily taken. May be repeated for credit. S/U or letter grading. 

213A. General Equilibrium and Game Theory. (4-4) Lecture, three hours. Preparation: course 212B.炷ntent in research in economic theory and applications. Topics include general equilibrium theory, perfect competitive equilibria, no-surplus condition, and applications to mechanism design and incomplete market models. 

213B. General Equilibrium and Game Theory. (4-4) Lecture, three hours. Preparation: course 212B. Topics in advanced theoretical topics of interest and instruction in modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading. 

214A. General Equilibrium Theory. Requisite: course 212A. Their core services are theoretical, which includes noncooperative approach to competitive equilibrium theory, perfectly competitive equilibria, the no-surplus condition, and applications to mechanism design and incomplete market models. 

214B. Game Theory. (Same as Mathematics M261 and Political Science M208A.) Lecture, three hours. Designed for graduate economics, mathematics, and political science students. Bargaining theory, the core, the value, other solution concepts. Applications to oligopoly, general exchange and production economics, and allocation of joint costs. 

215. Topics in Applied Game Theory. (4) (Same as Political Science M506B.) Lecture, three hours. Preparation: calculus or introductory probability. Design for graduate economics and political science students. Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading. 

218A-218B-218C. Seminaries: Economic Theory. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers. Discussion of advanced topics and recent developments in economic 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 expected. S/U grading. 


Also see Management 200 (game theory and information economics), 203A (decision theory), 203B (economics of information)
Economics / 273

222A-222Z. Topics in Monetary Economics. (4 each) Lecture, three hours. Current research in monetary economics. Credit/no credit. May be repeated for credit. S/U or letter grading.

M222A. Control and Coordination in Economics. (4) (Same as Computer Science M222.) Lecture, three hours. Recommended preparation: appropriate mathematics courses. Designed for graduate economics and engineering students. Stabilization policies, short- and long-run dynamics and stability analysis; decentralization, coordination in teams; certainty equivalence and separation theorems; stochastic and learning models. Bayesian approach to price and output rate adjustment. S/U or letter grading.

C226A-C226B-C226C. Seminars: Monetary Economics/Macroeconomics. (4-4-4) Seminar. Three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics for advanced 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 or letter grading.

228A-228B-228C. Proseminars: Monetary Economics. (4-4-4) Seminar, three hours. Workshop 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 (finance workshops) and Economics / 273. Workshops for advanced graduate students. Research paper or presentation required. S/U or letter grading.

241A. Economic History of Western Europe. (4) Lecture, three hours. Designed for graduate students. Seminar on European economic history, with emphasis on evolution of institutions and growth. Serfdom, medieval agriculture and the serf revolution, demographics, industrial revolution, imperial expansion, and decline of Britain. S/U or letter grading.


C246A-C246B-C246C. Seminars: Economic History. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C186A-C186B-C186C. S/U or letter grading.


249A-249B-249C. Von Gremp Workshops: History of Entrepreneurship in the 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. S/U grading.

Public Finance


254A-254B-254C. Workshops: Public Economics. (4 each) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

C256A-C256B-C256C. Seminars: Labor Economics. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C156A-C156B-C156C. S/U 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 and background material for proposed thesis topics, to be discussed and critiqued by faculty and fellow students. Presentation or research paper required. S/U grading.

269A-269B-269C. Workshops: Labor 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.

Industrial Organization


272A-272Z. Topics in Industrial Organization. (4 each) Lecture, three hours. Current research in industrial organization. Content varies. May be repeated for credit. S/U or letter grading.

273A. Public Utility Regulation. (4) Lecture, three hours. Theory, practice, and consequences of regulation in electric power, gas, water, telecommunications, broadcasting, and other regulated industries; experience of unregulated monopoly and public enterprises by way of contrast. S/U or letter grading.
C276A-C276B-C276C. Seminars: Industrial Organization. (4-4-4) Seminar, three hours. Designed for pre-dissertation and dissertation writers. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of 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 grading.

278A-278B-278C. Proseminars: Industrial Organization and Regulation. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers to discuss advanced topics and recent developments in industrial organization and regulation. Presentation of work-in-progress for feedback from faculty and fellow students. Presentation or research paper required. S/U grading.

279A-279B-279C. Workshops: Business Organization. (4-4-4) Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Research paper required. S/U grading. Also see Management 262 (pricing policy)

International Economics


282A-282B. Topics in International Economics. (4 each) Lecture, three hours. Current research in international economics. Content varies. May be repeated for credit. S/U or letter grading.

284. Soviet Economic Theory and Organization. (4) Lecture, three hours. General strategy of planning used by U.S.S.R. planners and specific planning methods, interpreted broadly to cover not only institutions and objectives but also institutional arrangements. Intended to present intended outcomes of the methods. S/U or letter grading.


Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requires: course 286A. Methodology for evaluating investment projects, with special attention to types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to high-way, 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. Recent economic history of East Asia, focusing on postwar development of Japan, Korea, and China. Emphasis on role of international investment and trade, especially with the U.S., in area's economic development.

287C. Topics in Economic Development. Designed for graduate students. Topics in monetary and exchange rate policy in developing countries. Students expected to develop analytical tools and underlying policy issues.

288A-288B-288C. Proseminars: International and Development Economics. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on current issues in international trade and finance and development economics. Presentation of work-in-progress for feedback from faculty and other graduate students. Presentation or research paper required. S/U grading.

Urban Economics


292A-Z. Topics in Urban Economics. (4 each) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.

C296A-C296B-C296C. Seminars: Asset Pricing. (4-4-4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in asset pricing theory for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different 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 C146A-C146B-C146C. S/U grading.

298A-298B-298C. Proseminars: Asset Pricing. (4-4-4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers on empirical issues in area of asset pricing, broadly defined. Presentation of work-in-progress or background material for proposed dissertation topics which are discussed and critiqued by faculty members and fellow students. Presentation or research paper required. S/U grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. Required of all new teaching assistants. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

596. Individual Study. (2 to 8) Directed individual study or research. S/U grading.


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Sandra H. Graham, Ph.D.
Kris D. Gutierrez, Ph.D.

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Sol Cohen, Ph.D.
Anne Dorr, Ph.D.
Dean Frederick D. Erickson, Ph.D. (George F. Kneller Professor of Education and Anthropology)
Ronald G. Gallimore, Ph.D., in Residence
Sandra H. Graham, Ph.D.
Kris D. Gutierrez, Ph.D.
Adjunct Associate Professors
Diane Durkin, Ph.D.
Addressing 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 to explore 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.

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 to explore 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.

Education Studies Minor

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., a master's degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Scope and Objectives

Undergraduate Study

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 to explore 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 two minor courses (one of which must be a designated core course) from the approved course list, have at least sophomore standing with a minimum overall 2.3 (C+) grade-point average, and file an admission application with the education studies academic adviser in the Office of Student Services, 1009 Moore Hall, http://www.gseis.ucla.edu/edmi-

Required Upper Division Courses (32 units minimum): A minimum of four core courses selected from Education M108, 120 through 133, and 194A, 194B, 194C (to be taken concurrently with either 182A, 182B, 182C or 183A, 183B, 183C) and three elective courses selected from 80, 92A through 92F, M102, M103, M112, 140, 141, 142, 143, 144, M148, 162, CM178/CM178L, 185, 191A through 191X, 192A/170A, 192B/170B, 196A, 196B, 196C.

Only one course from Education 80 and 92A through 92F may be applied toward the elective requirement. Courses CM178/CM178L, 192A/170A, and 192B/170B must be taken concurrently.

All minor courses must be taken for a letter grade. 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://www.gdnet.ucla.edu. 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 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, and Doctor of Philosophy (Ph.D.) degree in Special Education (with California State University, Los Angeles).

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.
M103. Asian American Education and Schooling. (4) (Same as Asian American Studies M114.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

M108. Sociology of Education. (5) (Same as Sociology M175.) Lecture, four hours. Study of social processes in educational organizations; relationship of such organizations to aspects of society, social class, and power; social relations within school, college, and university; formal and informal groups, subcultures in educational systems; roles of teachers, students, and administrators. Letter grading.


120. Early Childhood Development. (5) (Formerly numbered 181A.) Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children’s psychological development, with emphasis on personal, social, and emotional attributes of preschool and elementary school child. Aspects of prosocial behavior and aggression. Enhancement of prosocial behavior and modification of such negative behaviors as aggression. Review and evaluation of contemporary educational programs for promoting positive social behaviors in elementary schools. Methodological aspects of child development and issues related to role of family, school, and television in child development. Letter grading.

121. Introduction to K-12 Issues in American Public 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 schooling process (parents, students, teachers, geographical space of school environment, school organizations, and society) and how they are associated with American schooling experience. Discussion of contemporary themes such as risk behaviors, SAT controversy, high school exit examinations, social promotion, technology in classroom, psychosocial development and reform, equal educational opportunity, affirmative action, and educational assessment. Letter grading.

122. Perspectives on American College. (5) (Formerly numbered 181C.) Seminar, four hours. Examination of role colleges and universities play in larger cultural life of U.S. society. Use of analysis of student movements as vehicle for exploration of key sociological, political, and cultural developments on U.S. campuses. Emphasis on interrelated research, academic, social, and policy issues underlying diverse system of higher education. Letter grading.

123. Teaching Profession. (5) (Formerly numbered 181D.) Seminar, four hours. Exploration of traditional and alternative teaching practices and public responses to teachers teaching and students learning. Examination of education in socioeconomic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.

C124. History of Higher Education. (5) (Formerly numbered 191B.) 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) (Formerly numbered C191D.) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationship between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation. Concurrently scheduled with course C207. P/NP or letter grading.

126. Educational Anthropology. (5) (Formerly numbered 191E.) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropology and education. Exploration of concept of culture through anthropoligical research. 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. Issues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and research. Concurrently scheduled with course C203. Letter grading.

127. Educational Psychology. (5) (Formerly numbered 191F) Seminar, four hours. Research seminar providing broad overview of educational psychology, with examination of relationship of teaching and learning; various perspectives as to how children learn; issues of teaching and learning that arise based on child’s social class, ethnic background, gender, age, and level of ability. Letter grading.

128. Adolescent Psychosocial Development: Problems and Potentials. (5) (Formerly numbered 191G.) Seminar, four hours. Research seminar providing overview of research literature on adolescent development and use of education environment as context for this development. Primer focus on development to be psychosocial in nature and relation of topics to understanding of one’s identity, personal development, and relationships with other individuals and society at large. Study of psychological and education theories that apply to specific sub-samples of adolescents (e.g., women and adolescents of color), as well as those that are relevant to population of youth at large. Letter grading.

129. Education and Law. (5) (Formerly numbered 191H.) Seminar, four hours. Research seminar providing overview of high-profile legal controversies that shape so many policy debates at both K-12 and higher education levels. Major areas of focus include campus safety, religion and schools, educational policy and law, broadband access to equal educational opportunity, and Internet-related issues and concerns. Letter grading.

130. Race, Class, and Education Inequality in the U.S. (5) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in the U.S.: African Americans, Asian Americans and Pacific Islanders, Chicanas/Chicanos/Latinas/Latinos, and low-income white Americans. Examination of how historical development of public education in the U.S. has influenced its present form. Critical look at some current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.

131. Issues in American Education: Perspectives from History and Popular Culture. (4) Seminar, four hours. Exploration of ways we draw on different kinds of texts to illuminate critical issues in American secondary education. Issues include transformation in secondary education from 1890 to the present, politics of social class, and racial and gender representation of secondary education. Letter grading.
132. Education of Exceptional Individuals. (5) (Formerly numbered 125A.) Seminar, four hours. Research seminars designed to enable students to (1) gain basic understanding of ways in which public policies are established and implemented, (2) learn about policy landscape in light of the experiences of students with exceptionalities in the U.S. and other countries, and (3) use scientific research on children’s cognitive and social development to evaluate and understand effects of social and economic policies. Letter grading.

133. Topics in Child Development and Social Policies. (5) Three to six hours. Research seminars designed to enable students to (1) gain basic understanding of ways in which public policies are established and implemented, (2) learn about policy landscape in light of the experiences of students with exceptionalities in the U.S. and other countries, and (3) use scientific research on children’s cognitive and social development to evaluate and understand effects of social and economic policies. Letter grading.

140. Time and Behavior in Educational Organizations. (4) Seminar, three hours. Designed for junior/ seniors. Exploration of psychosocial perspective of how temporal orientation and time investments impact and shape human behavior, with specific emphasis on educational issues related to school reform, teen pregnancy, school violence, teacher burnout, teacher middle crisis, cultural diversity, information seeking behaviors, and academic attainment. Letter grading.

141. Writing to Learn: Teaching Writing in Elementary and Secondary Schools. (4) Seminar, four hours. Ways to teach writing at elementary and secondary levels through development of links between ideas, evidence, part, and whole, and writing process. Emphasis on how reading, writing, and thinking exercises 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 Program (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 opportunity to analyze their transition to UCLA and allows both returned and reciprocity students chances to learn through service to EAP. Letter grading.

143. High School Advisory Program. (4) (Formerly numbered 160X.) Lecture, two hours; discussion, two hours. High School Advisory Program (HSAP) assists high school students from low socioeconomic communities with college preparation. Intensive training course that covers variety of issues to appropriately train undergraduate students to become college advisors. Letter grading.

144. Advanced Undergraduate Research Seminar. (4) (Formerly numbered 197D.) Seminar, four hours. Limited to juniors/senior. 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.

145. Educational Leadership, Organizational Theory, and Policy. (4) Seminar, four hours. Designed for students interested in developing understanding and appreciation for breadth of leadership models/theories in education, including traditional, entrepreneurial, behavioral, and relationship-based models. Analysis of effectiveness of organizations and policies in terms of educational leadership, and development of personal leadership profile in context of alternative models of leadership relevant to education. Letter grading.

148. Women in Higher Education. (4) (Same as Women’s Studies M148.) Seminar, three hours. Designed for juniors/seniors. Overview of issues related to experience of women in higher education. Topics include education, feminism, pedagogy, gender equity, women faculty members, and intersection of gender and race. Letter grading.

152. 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. Topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

158. Experiential Learning: Community-Based Outreach Programs. (2) Fieldwork, four hours. Enforced corequisite: course 192A. Training and supervised practicum for under- graduate students, including tutoring and mentoring of K-3 students at America Reads sites. Letter grading.

170B. Experiential Learning: America Reads. (2) Fieldwork, four hours. Enforced corequisite: course 192B. Training and supervised practicum for under- graduate students, including tutoring and mentoring of K-3 students at America Reads sites. Letter grading.

170C. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Women’s Studies CM178.) Seminar, three hours. 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 CM278. Letter grading.

170LM. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Women’s Studies CM178L.) Laboratory, two hours. Corequisite: course CM178. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

182A. Language, Literacy, and Human Development Ethnography. (2) Fieldwork, three hours. Enforced corequisite: course 194B. 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.

182B. Culture, Gender, and Human Development Ethnography. (2) Fieldwork, three hours. Enforced corequisite: course 194B. 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.

182C. Culture, Gender, and Human Development Ethnography. (2) Fieldwork, three hours. Enforced corequisite: course 194C. 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.

183A. Language, Literacy, and Human Development Ethnography. (3) Fieldwork, six hours. Enforced corequisite: course 194A. 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.

183B. Culture, Gender, and Human Development Ethnography. (3) Fieldwork, six hours. Enforced corequisite: course 194B. 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.

183C. Culture, Communications, and Human Development Ethnography. (3) Fieldwork, six hours. Enforced corequisite: course 194C. 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.

183D. Language, Literacy, and Human Development Ethnography. (3) Fieldwork, six hours. Enforced corequisite: course 194D. 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.

183E. Language, Literacy, and Human Development Ethnography. (3) Fieldwork, six hours. Enforced corequisite: course 194E. 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.

185. Community Service Learning for Academic Achievement. (4) (Formerly numbered 190.) Lecture, two hours; discussion, 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 institutional assistance in various school settings. Letter grading.

191A-191X. Current Issues in Education. (4 each) (Formerly numbered 197A-197Z.) Seminar, four hours. Required for juniors/seniors. Variable topics course organized on selected current issues basis, integrating field observations and readings through seminar discussions. Development of culminating project. Consult Schedule of Classes for topics and instructors. Letter grading.

192A. Undergraduate Practicum in Community-Based Outreach Programs. (2) (Formerly numbered 193B.) Seminar, two hours. Requisite: course 185. 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 emotional 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: America Reads. (2) (Formerly numbered 193C.) Seminar, two hours. Enforced corequisite: course 170B. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students that provides opportunity to reflect on both content and experience pertaining to America Reads sites. 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.

194A. Language, Literacy, and Human Development Research Seminar Groups. (5) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course 182A or 183A. 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 langua. May be taken independently for credit. Letter grading.

194B. Culture, Gender, and Human Development Research Group Seminars. (5) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course 182B or 183B. 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.

194C. Culture, Communications, and Human Development Research Group Seminars (5) Seminar, three hours; laboratory, two hours (when scheduled). Enforced corequisite: course 182C or 183C. 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.

196A. Research Apprenticeship in Peer Counseling. (4) (Formerly numbered 193E.) Tutorial, four hours. Required for juniors/seniors. One-on-one interactive, student-centered course designed to provide hands-on experience in academic peer advising and leader and understanding of underlying theories, principles, and related issues. Students advise their peers in Education Studies minor courses and build community among those students. Individual contract required. Letter grading.
196B. Research Apprenticeship in Peer Advising and Leadership. (4) Tutorial, four hours. Enforced prerequisite: course 196A. 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. Individual contract required. Letter grading.


196R. Research Apprenticeship in Education. (2 to 4) Tutorial, four hours. 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, 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. 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. Cumulative paper or project required. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Historical Research and Writing. (4) Methods of historical research and writing for students who are or who will be engaged in research and in report or thesis writing, regardless of their field of interest.


200C. Analysis of Survey Data in Education. (4) Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of processing and analyzing non-experimental and quasi-experimental quantitative data.

M201C. History of American Education. (4) (Same as History M264.) History of educational thought and of social forces impinging on American education from the 1880s to the present. Analysis of relation between these ideas and forces, and aims and practices of American education today.

202. Evaluation Theory. (4) Prevalent evaluation theories, systems for categorizing these theories, and process of theory development in educational evaluation.

C203. Educational Anthropology. (5) Seminar, four hours. Research seminar designed to familiarize students with discipline of anthropology and subfield of anthropological, and education. Exploration of concept of culture through various anthropological perspectives, with focus on theories of culture, cultural transmission and acquisition, and cultural reproduction and preservation in 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 done anthropological research in educational settings. Issues of race, gender, sexual orientation, and class, and consideration of application of anthropological theory and methods to educational practice and research. Concurrently scheduled with course C126. Letter grading.

204A. Introduction to Education and the Social Sciences. (4) Interdisciplinary course intended to introduce students to study of educational issues, texts, and movements of thought through social sciences and comparative perspectives.

204B. Introduction to Comparative Education. (4) Examination of conceptual and methodological questions underlying comparative education. Particular attention to development of the field and to styles of social analysis which may be applied to comparative and cross-national studies in education.

204C. Education and National Development. (4) Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxist, neo-Marxist, liberation theology, and world-system theories) of change and development and changing notions of role of education in development of less-industrialized countries of the world.

204D. Minority Education in Cross-Cultural Perspective. (4) Historical and contemporary analyses of educational policies with regard to ethnic, religious, and linguistic minorities through selected national and international case studies. Introduction to cross-cultural education in representative countries in relation to social, political, and economic systems.

204E. International Efforts in Education. (4) Designed for graduate students. Critical analysis of complex world of “development cooperation,” with particular reference to bilateral and multilateral efforts in education.

204F. Nonformal Education in Comparative Perspective. (4) Comparative and international study of organized and systematic educational activity for children, youth, and adults outside of schools. Types of programs include, among others, consciousness raising, community action, skills training, literacy, and extension programming.

205. Computers in the Educational Process. (4) Introduction to theory, experimentation, evaluation, and future of computer systems in education, with emphasis on computer-assisted instruction (CAI), and use of computers to teach programming and to foster development of writing, computational, and filing skills.

206. Philosophy of Education: Introduction. (4) Systematic introduction to the field, indicating ways in which philosophy serves to elucidate educational aims, content, methods, and values.

206C. Introduction to Conceptual Analysis. (4) Conceptual analysis of recurrent and contemporary themes in the field. Emphasis on development of logical and linguistic skills used in analysis of educational problems and issues.

206C. Politics of Education. (5) Lecture, two hours; discussion, two hours. Political dimensions of education institutions and movements. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formulation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C125. S/U or letter grading.

208A. Perspectives on the Sociology of Education. (4) Lecture, four hours. Sociological perspectives on current issues in educational policy and practice, including desegregation, deinstitutionalization, equality of educational opportunity, structure of educational organization, teacher/student relationships, reform in education at elementary, secondary, postsecondary levels. S/U or letter grading.

208C. Explanation in the Social Sciences and Educational Research. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Overview of basic strategies for terms of explanation relevant to inquiry in education from vantage point of various social and behavioral sciences disciplines.

C209A. History of Higher Education. (5) Formerly numbered 209A. 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 C124. S/U or letter grading.

209C. Research and Evaluation in Higher Education. (4) Lecture, four hours. Development of conceptual and practical understanding of research and evaluation in higher education. Topics include basic statistics, survey design, data analysis, assessment issues, and research proposal writing. Letter grading.

209D. System of Higher Education. (4) Analysis of structure and function of American postsecondary education from systems perspective. Emphasis on structure of system and comparative characteristics (faculties, student bodies, finances, outputs) of different types of institutions.

210. Education as a Profession: Theory, Research, and Practice. (4) Formerly numbered 210A.) 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.


211B. Item Response Theory. (4) Lecture, four hours. Requisites: courses 211A, 230C. Item response theory, applications to educational achievement tests, item bias, test information, test equating, construction, and adaptive testing. 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 Practice. (4) Lecture, three hours; discussion, one hour. Requisite: course 414A. Group productivity, leadership in groups, social perception, attitude formation, and effect of behavior changes in individuals and groups. Evaluation of social, psychological, and educational principles related to therapeutic experiences of individuals in small group counseling.

213D. Assessment in Counseling and Student Affairs. (4) Overview of assessment issues and methods used in counseling and student affairs activities. Emphasis on concepts of testing and measurement, application of measurement procedures, and contemporary issues that are significant in influencing assessment in student affairs programs.
214A. Counseling Theory and Practice. (4) Lecture, four hours. Alternatives in counseling practice in relation to theories of personality development and functioning, research on effectiveness of counseling, professional issues in counseling, educational aspects of counseling. S/U or letter grading.

214C. American Professoriate: Faculty Status, Role, and Performance. (4) Discussion, four hours. Historical and contemporary issues involving American professoriate. Topics include employment, academic culture, teaching and research, reward structure, faculty development. Letter grading.


214F. Student Problems: Social Context. (4) Designed to assist students in understanding the configuration of social forces that lead to student dysfunctions. Consideration of a number of contemporary social problems that are of concern to school counselors, educators in general, and behavioral scientists.

M215. Personality, Motivation, and Attribution. (4) (Same as Psychology M239.) Current research and theory related to theoretical issues (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensity of behavior. Perceived causes of outcomes in achievement and affective domains.


M217A. Social Development and Education. (4) (Same as Psychology M242D.) Seminar, four hours. Biological and familial, school, and other influences on the child; development in context of current research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

217B. Cognitive Development and Education. (4) Designed for graduate students. Critical review of theories and research in cognitive development, focusing on work of Piaget and Vygotsky, and relation of this work to educational practice.

M217C. Personality Development and Education. (4) (Same as Psychology M242S.) Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, self-concept, aggression, sex differences, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development.

217D. Language Development and Education. (4) Research and theory on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectal issues.

M217F. Adolescent Development. (4) (Same as Psychology M242G.) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include pubertal development, changes in parent/adolescent 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) Provides assistance in design of research and interpretation of data to advanced students from other divisions. Coverage of special topics not included in current research model.

220A. Inquiry into Schooling: Organization and Change. (4) Critical analysis of issues in reconstruction of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change.


221. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 230C (section 1), 230D. Designed to develop conceptual and technical skills needed for designing and executing empirical research utilizing statistical packages. Each student conducts two original studies. Equal emphasis on techniques of data analysis and interpretation of results. S/U or letter grading.

222A. Introduction to Qualitative Methods and Design Issues in Educational Research. (4) Lecture, three hours; discussion, two hours. Requisite: course 230A. Focus on qualitative research design in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisite: course 222A. Focus on participant-observation field methods. Key skills (e.g., observation, recording, interviewing, role management, data storage) learned through classroom lectures and simulations, and by conducting actual field-based research project. Letter grading.

222C. Qualitative Data Reduction and Analysis. (4) Lecture, two hours; discussion, two hours. Requisite: course 222B. Continuation of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues involved in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lecture, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and microethnography of social interaction. S/U or letter grading.

223. Aesthetics and the Curriculum. (4) Lecture, two hours; discussion, two hours. Examination of various ideas and theories in aesthetics and application of these in school contexts.

224. Problems and Issues in Bilingual and Multicultural Education. (4) Introduction to development and implementation of bilingual and multicultural programs in the U.S. Analysis of program goals, models, typologies, and effectiveness.

225A. Issues in Education of Exceptional Individuals. (4) Designed for graduate students. Analysis of major research regarding contemporary trends in special education, and programs for the exceptional; consideration of commonalities and differences among exceptional individuals.

225B. Advanced Issues in Education of Exceptional Individuals. (4) 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.

226. Seminar: Special Topics in Writing, Rhetoric, and Educational Methodology. (4) Special topics seminar in writing on education that could focus on history of writing about education, social and political dimensions of it, its variation by discipline, and its uses in professional and public contexts.

227A. Research on Learning Characteristics of Exceptional Individuals. (4) Requisite: course 220B. Examination of theories and research regarding learning characteristics of exceptional individuals and discussion of application of this work to educational practice.


229. Seminar: Special Topics in Urban Schooling. (4) Research on selected topics in fields of administration, policy, curriculum, and teaching studies and on conceptualization of hypotheses and research programs on division topics and issues.


231C. Analysis of Categorical and Other Nonnormal Data. (4) Requisites: courses 230B, 230C. Regression analysis with dichotomous and polytomous dependent variables, log-linear modeling, coefficients of association for categorical variables, factor analysis, and structural equation modeling.

231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analysis. (4) Requisites: courses 230A, 231B. Examination of conceptual, substantive, and methodological issues in analyzing multilevel data (i.e., on individuals in organizational settings such as schools, corporations, hospitals, communities); consideration of alternative analytical models.

M231E. Statistical Analysis with Latent Variables. (4) (Same as Statistics M244.) Lecture, three hours. Requisites: courses 231A, 231B. Extends path analysis (causal modeling) by considering models with measurement errors and multiple indicators of latent variables. Confirmatory factor analysis, covariance structure modeling, and multiple-group analysis. Identification, estimation, testing, and model building considerations. Letter grading.

232. Instructional Analysis. (4) Theoretical and empirical analysis of instructional variables as they relate to diverse types of instructional strategies. Development of skill in techniques of conducting instructional research.

233A. Professional Writing in Education. (4) Designed for first-and second-year doctoral students and 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 methodology.

233B. Professional Writing in Education. (4) Designed for students at proposal or dissertation stage, with focus on development, organization, and coherence of these scholarly documents, their conceptualization and method, and issues of audience and style.

234. Education and Social Stratification. (4) Relation between education and components of social stratification, including occupations and earnings. Competing theories used in studying education and social stratification; relevant research. Conclusions regarding individual career decisions, social policies, and theories of society.

235. Theory and Practice of Leadership. (4) Discussion, four hours. Review of theory and practice of leadership. Examination of theories in organizational contexts, with special focus on higher education. Variety of questions addressed, including what is leadership, differences between leadership and management, role of leadership in institutional transformation. Letter grading.


237. Law and Urban Education. (4) Lecture, four hours. Examination of recent legal controversies that may impact ability of urban educators to meet needs of students in a multicultural society, with special emphasis on such equity-related issues as desegregation, school finance, standardized testing, and rights of language minority students. Letter grading.

238. Cross-National Analysis of Higher Education. (4) Comparative study of national systems of higher education: their division of work, basic values, structures of authority, modes of national integration, and types of social change.

239. Organization and Governance of Educational Systems. (4) Academic organizations, precollege and postsecondary, are most appropriately studied as complex, professionalized organizations. Emphasis on characteristics of educational institutions and systems as organizations: environmental relations, governance structures, processes, and patterns of decision making and policy-making.


241. Research Methodology in School Administration. (4) Examination of research problems and strategies in school administration.


246A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Requisites: course 242B. E. Information technology and decision analysis impact K-12 schooling, higher education, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objectives.

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; limits of investigation set by individual instructor. S/U or letter grading.

249B. Seminar: Institutional Research and Program Evaluation. (4) Critical review of institutional evaluation studies, with consideration of scope of information needed for various purposes and problems of interpreting this information to appraise overall institutional functioning and effectiveness.

250A. Organizations and Systems of Higher Education. (4) Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute the division, with emphasis on understanding social and political issues that shape higher education and organizational change.

250B. Topical Issues in Higher Education. (4) Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute the division, with emphasis on understanding social and political issues that shape higher education and organizational change.

250C. Theoretical Frameworks of Higher Education. (4) Designed for graduate students. Overview of various social sciences theories used to analyze institutions and issues of contemporary higher education. Explanation of how theory and methodology affect research design and framing of research questions in studies of higher education.


252A. Seminar: Educational Organizations. (4) Seminar, four hours. Requisite: course 208A. S/U or 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 curriculum and instruction. Letter grading.

252C. Human Resources and Economic Development. (4) (Same as Community Health Sciences M255.) Lecture, four hours. Examination, in context of developing countries, of interactions among economic development, population growth, levels of health and nutritional status, and educational investments. S/U or letter grading.


253B. Seminar: African Education. (4) Designed for graduate students. Contemporary issues in African educational systems, including questions of access and equity, quality and efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education.


253D. Seminar: Latin American Education. (4) Seminar, four hours. S/U or letter grading.

253E. Seminar: European Education. (4) Seminar, four hours. S/U or letter grading.

253F. Seminar: Education in Revolutionary Societies. (4) 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 nonsocialist nations.

253G. Seminar: The Asian American and Education. (4) Basic issues and topics related to Asian Americans in the field of education. Examples of issues and topics include Asian Americans and the community, socioeconomic status, education-to-work transition, language and culture question.

253H. Seminar: The Chicano/Hispanic and Education. (4) Basic issues and topics related to the Chicano and other Hispanic groups in education. Review of literature on specific Chicano Program and Chicano/Hispanic student progress (e.g., early childhood, elementary, higher education; specific topics: assessment, access, tracking, segregation, implications for schooling).

253I. Education and Social Change in the Middle East and Islamic World. (4) 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 the Middle East and Islamic world (including Pacific Rim, South and Central Asia).

255A-255B-255C. Seminars: Special Topics. (4-4-4) May be repeated for credit. 255A. Measurement; 255B. Design; 255C. Data Analysis.


256B. Seminar: Special Topics in Development. (4) Seminar, four hours. S/U or letter grading.

257. Seminar: Research in Counseling Psychology. (4) In-depth analysis of selected research approaches/areas in counseling psychology.

258A. Seminar: Problems in Instructional Development. (4) Seminar, four hours. S/U or letter grading.

259A. Seminar: Research on Characteristics of Students. (4) Seminar, four hours. Analysis of concepts, methodology, and conclusions or implications underlying and resulting from major research on student characteristics. Emphasis on differential impact of higher education on student and faculty development.

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) Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills.

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.

262H. Economics of Urban Schooling. (4) Lecture, two hours; discussion, two hours. Introduction to and application of relevant principles and tools of economic analysis to urban schooling issues, decision making, and policy. Economic lens include equity and access, returns to education, economic efficiency, markets and market failures, human capital theory, externalities, marginal utility analysis, and comparative advantage.

Letter grading.

262J. Entrepreneurial Leadership and Education: Seminar for Education and Business Leaders. (4) Seminar, two hours; discussion, two hours. Seminar for education and business leaders to explore concepts and processes of becoming entrepreneurial leaders — meeting today’s educational challenges by internalizing and applying skills and thinking used by successful entrepreneurs. Letter grading.


264. Seminar: Teacher Education. (4) Research, issues, and practices in preservice and in-service teacher preparation, evaluation, and certification. Social, philosophical, and methodological issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs.

265. Higher Education Policy. (4) Requisites: courses 250A, 250B. Understanding public policy for higher education requires understanding of both issues and policy process. Review of major topics on which the U.S. government is active, as well as key actors and their influence.

266. Feminist Theory and Social Sciences Research. (4) Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, a distinctive critical theory methodology now widely used in social sciences.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to theoretical approaches to reading, such as poststructuralist, feminist, deconstruction, reader reception, and semiotics, and to core ideas of some leading theories of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak.

269. Representations of Education in Cinema. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we draw on diverse “texts,” particularly films set in or around schools, to illuminate contemporary issues in American secondary education (e.g., issues pertaining to incorporation of teachers, students, parents, and administrators in curriculum in popular films about high school and adolescents).

270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigates general 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 a goal of cultural studies. Letter grading.

271A. Proseminar: Educational Psychology. (2) Introduction to a variety of research issues in the field of educational psychology, including topics such as 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) Use of case-study methods in education research, providing opportunities for applying methodological skills to actual case-study research projects. Focus on an analysis of case studies that investigate issues in education policy and practice.

273A. Structure and Dynamics of Educational Systems. (4) Lecture, discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American education as an institutional system wherein federal, state, and local levels are interconnected. Emphasis on curricular theory and design, and teaching are inextricably connected in the delivery of education.

273B. Social Foundations of Education. (4) Introduction to literature on multiculturalism and teachings in diverse social, cultural, and economic contexts. Exploration of debates over multiculturalism and teaching for democratic citizenship by review of a diverse number of anthropological, sociological, educational curricula, and literature.

274. Science, Technology, and Social Research after Eurocentrism. (4) A philosophy of natural sciences for social scientists which examines challenges to conventional research assumptions raised by multi-cultural and postcolonial science and technology studies that have emerged since World War II. Focus on sciences and technologies in third-world development projects, comparative ethnoscience movements, and new theories of knowledge and how to do maximally objective research emerging from these literatures.

275. Race and Education. (4) Designed for graduate students. Examination of race-related policy-making. Exploration of a broad interpretation of how schools contribute to racial stratification and inequality by linking sociological and sociopsychological theories and research to social, economic, and political attitudes, and conflict to historical policy analysis.

276. Contemporary Theories of Writing. (4) Review of current theories of writing and literacy research, examining works by relevant authors. Comparison of writing and literacy, culture, and human development. In particular, examination of history of writing research over last three decades as part of a broader intellectual history.


CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Women’s Studies CM278.) Seminar, three hours. Use of range of feminist 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 Women’s Studies CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178. Letter grading.

279. History of Urban Schooling. (4) Formerly numbered 229.) Lecture, four hours. Designed for graduate students. Survey of major events, political and economic forces, and ideas that shaped urban schools since 1890. Examination of historical scholarship across range of political/ideological perspectives. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6) Focus on research and clinical problems in special education in relation to social services and research strategies. Exploration of current topics in the field.

280B. Seminar: Exceptional Individuals. (4) Limited to doctoral students.

281. College Access Seminar. (4) Seminar, two hours; discussion, two hours. Knowledge of changing dynamics of college access at individual, organizational, and field levels and understanding of links between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulate throughout education and effects equity in college access. Letter grading.

282. Students at Risk: Reconsideration. (4) Designed for second-year graduate students. Notion of “at risk” has become standard element of biomedical/public health and educational/social sciences discourse. Consideration of “risk” from range of disciplinary and methodological perspectives.

283. Social Research in a Multicultural and Postcolonial World. (4) A philosophy of social sciences that focuses on how to think fruitfully about two issues: (1) inevitability of non-neutral procedures and results of research conducted within a liberal state that must be committed to value-neutrality and (2) challenges that multicultural and postcolonial social theories have raised to conventional research theories and methodologies.

284. Critical Theory in Education: Power, Politics, and Liberation. (4) Formerly numbered 222.) Lecture, four hours. Designed for graduate students. Introduction to major theories, issues, and methodological boundaries within what has come to be known as “critical and educational tradition,” including some major theoretical writings in liberal, neo-Marxist, left liberal/postmodern, and Marxist subfields of critical education tradition. Letter grading.

288. Research Apprenticeship Course. (2) Seminar, two hours; discussion, two hours. Knowledge of changing dynamics of college access at individual, organizational, and field levels and understanding of links between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulate throughout education and effects equity in college access. Letter grading.
290. Educational Policy Analysis: Research, Theory, and Practice. (4) Broad overview of development of educational policy from the 1950s to the present. Examination of current issues and debates within educational policy in the U.S. through different theoretical lenses. Exploration of major bodies of research on educational policy and alternative paradigms.

291. Organizational and Leadership Theory in Education. (4) Introduction to contemporary and historical conceptions of organization and leadership in context of formal schooling. Exploration of these conceptions through inquiry into school and college settings.

292. Curriculum Theory, Research, and Practice. (4) Survey of history of theories and perspectives shaping what is taught in schools, providing graduate students broad understanding of various values, beliefs, and power relations shaping K-12 curriculum in the U.S.

293. Teaching Studies: Research and Theory into Practice. (4) Exploration of historical, theoretical, and empirical perspectives related to teaching and teacher education, providing graduate students with broad overview of relevant literature and current issues shaping teaching in the U.S.

296A-296F. Seminars: Research Topics in Education. (2-3) Seminar, three hours. Advanced study and analysis of current topics in education. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

296G. Research Topics in Education: Legal Aspects of Educational Management. (2) Seminar. Two hours. Examination and analysis of legal issues, especially as they apply to school organizations. Letter grading.

296H. Research Topics in Education: Organizational Theory. (2) Seminar, two hours. Examination and analysis of theories, especially as they apply to school organizations. Letter grading.

299A-299B-299C. Research Practicum: Education. (4 to 8 each) May be repeated for credit.

300. Dissertation Writing Workshop: Interdivisional Seminar. (4) Seminar; one hour; discussion, two hours; laboratory, one hour. Limited enrollment. Introduction for doctoral candidates to dissertation writing as a genre that can be analyzed or broken down with its constituent parts. A construct versus, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (1) Laboratory, one hour. Limited to credential program students. Introductions to laboratory sessions providing preservice teachers with introduction to educational technology infrastructure and classroom presentation tools. Introduction to resources and services, e-mail functions and Internet, and presentation software and multimedia elements. S/U grading.

305. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Teaching/learning process as applied to personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of health work. S/U grading.

309. Methodologies for English Language Learners. (2) Laboratory, two hours. Limited to credential program students. Pedagogy for bilingual and English language learners. Discussion of competencies needed by all content area teachers of English language, including strategies for teaching in and through English. Topics include educational issues, organizational approaches, and communicative approaches; strategies and activities. Letter grading.

310. Professional Communication for Graduate Students in Education. (2) Writing workshop on student papers in progress to ensure professional standards. Analysis and group discussion of rhetorical and stylistic principles. May be repeated once. S/U grading.

311. Principles and Methods of Computer Literacy and Classroom Application — K-12. (2) Lecture, one hour; laboratory, 30 minutes. Introduction to use of computer in K-12 classroom environment. Discussion of issues on why and how to integrate computers into curriculum and hands-on practice which allows students to demonstrate skills discussed. S/U grading.

312. Basic Principles of Curriculum and Instruction. (4) Analysis and practice of basic principles and concepts for planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of a variety of instructional strategies and their application in elementary and secondary schools.


316A. Integrated Methods for Elementary Teachers. (2) Lecture, two hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas. Aligned with California state frameworks and California content standards for grades K-12, including California English Language Development Standards — all of which address needs and interests of diverse students. S/U grading.

316B-318C. Integrated Methods for Elementary Teachers. (4-8) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards — all of which address needs and interests of diverse students. S/U grading.

320A-320B. Secondary Content and Literacy Methods. (3-3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching in grades 7-12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses are aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards — all of which address needs and various interests of diverse students. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to school sites with racially, culturally, and linguistically diverse student populations. Throughout observation and participation period, students analyze effective strategies for achieving learning for all students, including sociocultural approaches and appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. S/U grading.

330C. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330D. Classroom Residency and Teaching. (4) Site-based fieldwork, 40 hours. Students employed by local school districts to teach as residents in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate a change project in their local school and/or complete a case study on the project. S/U grading.

360A-360B-360C, Novice Seminars. (3-3-3) Seminar, three hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of constructivist strategies and their application in elementary and secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethnographic inquiry of local community of their designated partnership district. 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 a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

400. Foundations of Education Policy Analysis. (4) Principles of decision making and policy formation, implementation, and evaluation within the context of the educational system. Critical perspectives include effectiveness and equity of educational delivery systems and programs, and complex nature of educational governance in contemporary America.

401. Structure and Functions of Schools as Complex Organizations. (4) Critical analysis of alternative assumptions about organizations, how they function, and why people in organizations behave as they do. Application to special circumstances of schools and to contemporary issues and problems in school leadership, improvement, and reform.


405A-405B-405C. Teaching in Urban Schools. (2-2-2) Lecture, two hours. Limited to credential program students. Focus on core issues of identity development, positionality, and development as a teacher for urban school populations; issues and sociocultural realities of diverse student populations; and examination of urban school communities, their identities, and ways of understanding and interacting. Each course may be taken independently for credit. Letter grading.

405A. Cultural Identity. 405B. Diverse Perspectives, Activism, and Community Action.


408A-408B. Language and Culture. (2 each) Lecture, two hours. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussions, activities, and reflective expression, allowing novice teachers to understand and participate in rich cultural diversity of urban Los Angeles. By exploring culture as tool and target for increasing understanding of multicultural diversity, teachers may construct meaningful connections to students, communities, and home cultures. Each course may be taken independently for credit. Letter grading.

409. Language Structure, Acquisition, and Development. (3) Lecture, three hours. Theoretical foundations of language structure and first and second language acquisition, with focus on major themes of current research that provide framework for schooling of English language learners. Rationale for bilingual/English language acquisition, with focus on major themes of curriculum design for bilingual education. Letter grading.

410A-410B. Issues in Higher Education and K-12. (4-4) Lecture, four hours. Two-course sequence providing overview of higher and K-12 education systems. Letter grading. 410A. Designed to develop knowledge, understanding, and sensitivity to contemporary critical and emerging issues that impact higher education, with focus on both theory and practice. Study of relationships between issues in K-12 schooling and higher education. 410B. Exploration of issues that affect both higher education and K-12 schooling, including restructuring and reform, standards, access and accountability, and new technologies. Emphasis on both theory and practice.

411. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation programs. Writing evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical/legislative evaluation, framing decision context, and reporting evaluation results. Letter grading.

413A. Language and Culture. (2) Formerly numbered 413C.) Lecture, two hours. Limited to credential program students. Focus on core issues of identity development, positionality, and development as a teacher for urban school populations; issues and sociocultural realities of diverse student populations; and examination of urban school communities, their identities, and ways of understanding and interacting. Each course may be taken independently for credit. Letter grading.

413B. Methodology for Primary Language Instruction. (3) Formerly numbered 413A.) Lecture, three hours. Offered and required for Spanish BCLAD credential. Focus on language of emphasis, social and cultural identity of home language speakers of language of emphasis; practice in use of activities to develop student ability to use language for real-world and academic purposes in culturally appropriate ways. Consideration of models for teaching academic content in primary language for delivery of core curriculum to bilingual and language minority students. Letter grading.

413C. Culture of Emphasis. (3) Formerly numbered 413B.) Lecture, three hours. Offered and required for Spanish BCLAD credential. Emphasis on Spanish, the home language. Consideration of cultural issues and the home language as the primary language for delivery of core curriculum. Letter grading.


414A. General Topics in Student Affairs. (4) Lecture, two hours; discussion, two hours. Examination of legal and ethical issues that affect student affairs practices in higher education. Letter grading.

414C. Advanced Counseling Theory and Practice. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Overview of intervention and prevention strategies for student affairs professionals, with emphasis on campus-as-community concept with crisis theory as a model, providing conceptual model for understanding counseling role of student affairs in higher education. Letter grading.

414D. Career Development and Interventions in Colleges. (4) Lecture, two hours; discussion, one hour. Examination of challenges faced by college students of all ages in preparing for careers in dynamic multicultural world economy and interventions for assisting them. Emphasis on understanding development and evaluation of interventions. Letter grading.

414E. Administration of Student Affairs. (4) Overview of general knowledge and processes essential to effectively administer a program or service under student affairs. Exploration of relationships between environmental factors and strategies for governing, planning, and managing student affairs programs and services.


415B. Advanced Assessment in Counseling Psychology. (4) Lecture, four hours. Requisite: course 415A. Advanced course in assessment for counseling psychologists. Survey and demonstration of instruments of achievement, affective, and personality appraisal, with emphasis on testing and interpreting between assessment and psychological functioning for reducing risks of failure in academic, personal, and social areas. S/U or letter grading.

420A. Principles of Curriculum. (4) Critical examination of basic concepts underlying determination of objectives, selection and organization of learning experiences, and evaluation process.

421. Programs and Research in Early Childhood Education. (4) Preparation: one course from developmental program. Examination of child care programs and research in early childhood education, including study of review of relation in research in developmental psychology and education to goals of early childhood education and day care.

421D. Community Agents in Child Development. (4) Preparation: one course from developmental program. Critical review of theoretical basis and effectiveness of training programs for parents of young and elementary school-aged children; relation of preschool parent programs to family development and role of programs in the community.


422. Inquiry into Schooling: Basic Issues. (4) Critical examination of basic issues and problems in organization and reconstruction of precollege schooling; consideration of the impact of changing and changing functions of schooling in American society; school organization; schooling alternatives; problems in management of educational change.


424A. Social Studies in the Curriculum. (4) Advanced study in social studies curriculum development; problems in defining objectives and organizing single and multidisciplinary programs; critical review of literature on cognitive and affective learning in social science, with emphasis on experimental study of instructional programs.

424B. Reading in the Curriculum. (4) 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 Education. (4) Advanced study of curriculum design for bilingual educational programs. Philosophical basis for bilingual programs; theories of learning and instruction applied to bilingual learner; language assessment; development of instructional component; program evaluation.


431. Administration in Higher Education. (4) Overview of college and university administration and introduction to policy research and analysis in postsecondary institutions. Case studies of administrative problems, policies, and practices. Management information systems, resource allocation, and issues related to responsibility, authority, and participation in administrative decisions.

431B. Curriculum and Instruction in Higher Education. Prerequisites: course 431A. Principles of curriculum and instruction in postsecondary programs. Theory and practices in goal setting, testing, media selection, and related instructional responsibilities. Preparing to teach college-level students.

432. Seminar: Professional Topics in Higher Education. (4) Seminar, four hours. S/U or letter 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.

435A. Educational Media. (4) Discussion, four hours. Current issues and trends in design of interactive educational media. Design and development of prototype educational media applications, integration plans for established experimental educational media into formal learning settings, or evaluations of specific learning environments. Letter grading.

440C. Administration of the Instructional Program. (4) 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.

441A. Instructional Supervision A. (4) Analysis of teaching in light of research-substantiated elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and degree of learning, retention and transfer, monitoring and adjusting instruction to meet needs and capacities of learners.


442B. Legal Aspects of Educational Management and Practice. (4) Examination of structures and kinds of law governing educational systems in the U.S.; constitutional dimensions of church-state relations; federal law and state law and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights.

443. Policy Analysis in Education. (4) Overview of political, economic, and legal context of educational policy formation. Included in examination are issues that impact on minorities (e.g., bilingual education), desegregation, affirmative action, role of subordinates in policy-making process.

444B. Equity in Educational Opportunity through Desegregation and Finance Case Law. (4) Requisite: course 442B. Concentrated review of definition of equality of educational opportunity as it is being developed in court decisions concerning desegregation and educational finance.

447. Seminar: Educational Policy and Planning, Special Studies. (1 to 4) S/U or letter grading.

448A. Urban School Leadership. (4) Analysis of problems of urban school leadership. Emphasis on changing nature of the urban principalship, with considerable attention to role of other school and community agencies that interact with the urban school leader.

448B. Urban Leadership Laboratory. (4) Analysis of opportunities to practice human and technical skills requisite for success as an urban school leader. Topics include negotiations, conflict resolution, applied computer technology, effective communication. Activities include gaming, simulation, computer programming, and group dynamics.

450A. Leadership Capacity Building. (4) Lecture, one hour; discussion, one hour; small group work, one hour. Limited to Educational Leadership Program students. Course taken in year one of Educational Leadership Program to help students with their communication and leadership capacities. Letter grading.

450B. Leadership Capacity Building. (4) Lecture, one hour; discussion, one hour; small group work, one hour. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program to help students with their communication and leadership capacities. Letter grading.

451. Foundations of Organizations and Leadership. (4) Lecture, four hours. Limited to Educational Leadership Program students. Promotion of understanding of the historical, contemporary, and contemporary conceptions of leadership and organizational theory, with application of these conceptions to professional work settings. Letter grading.

452A-452B-452C. Educational Enterprise. (4-4-4) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study leadership problems and practices. Emphasis on purposes of education governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curricula and instructional leadership.

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.

454. Introduction to Action Research. (2) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Elements of organizing, planning, and carrying out research for making changes in classroom, school, community, or district. Letter grading.

455A-455B-455C. Education, Inquiry, and Writing. (2-3-2) Discussion, one hour; laboratory, one hour; lecture/ workshop, eight hours per month. Limited to Educational Leadership Program students. Intended to assist students' professional development as writers, addressing style and organization, scholarly genres, modes of discourse, and broader issues of conceptualization and method. Letter grading.

456. Altering Structure and Culture of Schooling. (4) Lecture, four hours; discussion, four hours. Limited to Educational Leadership Program students. Us- ing applied orientation, examination of variety of approaches to organizational change and ways to sus- tain change. Letter grading.

457. Student Development across K-12 Spectrum. (4) Discussion, four hours. Limited to Educational Leadership Program students. Theories of student development applicable to K-12 and postsecondary education. Focus on educational influences on self and others. Letter grading.


462. Seminar: Community College. (4) Topics in- clude problems and practices in community college formation, instruction, student flow, administration, and/or evaluation.

470A. Seminar: Large Systems and Individual Schools. (4) Seminar, four hours. S/U or letter grad- ing.


482A. Instructional Strategies in Urban Educa- tion: Technology. (4) Lecture, four hours. Emphasis on instructional practices that integrate use of technology in urban public school settings. Analysis of comprehensive specialized use of appropriate computer-based technology to facilitate teaching and learning process, and debriefing of field experiences integrating technology-related tools. Letter grading.

482B. Instructional Strategies in Urban Educa- tion: English Language Learners. (4) Lecture, four hours. Emphasis on instructional practices that support English language learners in urban public schools. Study and analysis of delivery of comprehen- sive specialized instruction for English learners and debriefing of field experiences implementing adopted instructional programs for development of academic language, comprehension, and knowledge in core academic curriculum. Letter grading.

482C. Instructional Strategies in Urban Educa- tion: Special Populations. (4) Lecture, four hours. Emphasis on instructional practices that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum, instruc- tion, and assessment issues related to teaching stu- dents with disabilities, students who are at risk, and students who are gifted and talented. Research op- portunities, additional methods in content areas for advanced study, and preparation of M.Ed. inquiry in- cluded. Letter grading.

485. Advanced Study of Health Education. (1) Lecture, four hours. Student meetings with instruc- tors, field specialists, and team cohorts to study and analyze delivery of comprehensive approach for physi- cal, 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 mar- jor state and federal laws related to student health and safety. Letter grading.

489. Instructional Strategies in Education. (4) Methods for academic instruction, including research and active participation in the adversary approach, forms of debate, role playing, interaction process analysis, and feedback instruments. Practical empha- sis on social sciences and humanities instruction, K- 12.

490A. Instructional Decision Making. (4) Analysis of instructional models relevant to public school edu- cation. Assumptions, procedures, and constraints of each strategy considered in terms of learner and task variables. Laboratory experiences in classroom set- tings permit students systematically to apply and evaluate alternative instructional strategies.


495A-495B-495C. 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) Clinic, to be arranged. Field experiences de- signed to increase understanding of student fields of study. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experi- ence. (4 to 8 each) May be repeated for credit.

501. Cooperative Programs in Special Education. (2 to 8) Preparation: consent of UCLA academic ad- viser 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.
Electrical Engineering

Henry Samuel School of Engineering and Applied Science

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Frank M.C. Chang, Ph.D., Vice Chair
Ali H. Sayed, Ph.D., Vice Chair

Professors
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Abeer A.H. Alwan, Ph.D.
A.V. Balakrishnan, Ph.D.
Frank M.C. Chang, Ph.D.
Harold R. Fetterman, Ph.D.
Michael P. Fitz, Ph.D.
Warren S. Grundfest, M.D., FACS
Tatsuho Itoh, Ph.D. (Northrop Grumman Professor of Electrical Engineering)
Stephen E. Jacobsen, Ph.D.
Rajeev Jain, Ph.D.
Bahram Jalali, Ph.D.
Chandrashekar J. Joshi, Ph.D.
William J. Kaiser, Ph.D.
Nhan N. Levan, Ph.D.
Jia-Ming Liu, Ph.D.
Warren B. Mori, Ph.D.
Dee-Son Pan, Ph.D.
C. Kumar N. Patel, Ph.D.
Gregory J. Pottie, Ph.D.
Yahya Rahmat-Samii, Ph.D.
Behzad Razavi, Ph.D.
Vware P. Roychowdhury, Ph.D.
Izhak Rubin, Ph.D.
Henry Samuel, Ph.D.
Ali H. Sayed, Ph.D.
Oscar M. Stafsudd, Jr., Ph.D.
John D. Villasenor, Ph.D.
Chand R. Viswanathan, Ph.D.
Kang L. Wang, Ph.D.
Paul K.C. Wang, Ph.D.
Alan N. Willson, Jr., Ph.D.
Jason C.S. Woo, Ph.D.
Elia Yablonovitch, Ph.D.
Kung Yao, Ph.D.

Professors Emeriti
Frederick G. Allen, Ph.D.
Francis F. Chen, Ph.D.
Robert S. Elliott, Ph.D.
Frederick W. Schott, Ph.D.
Gabor C. Temes, Ph.D.
Donald M. Wiberg, Ph.D.

Jack Willis, B.Sc.

Associate Professors
Babak Daneshrad, Ph.D.
Jack W. Judy, Ph.D.
William H. Mangione-Smith, Ph.D.
Fernando G. Paganini, Ph.D.
Mani B. Srivastava, Ph.D.
Lieven Vandenberghe, Ph.D.
Ingrid M. Verbaaswede, Ph.D.
Richard D. Wesel, Ph.D.
C.-K. Ken Yang, Ph.D.

Assistant Professors
Lei He, Ph.D.
Sudhakar Pamarti, Ph.D.
Yuanxun (Ethan) Wang, Ph.D.

Adjunct Professors
Nicolaos G. Alexopoulos, Ph.D.
Elliott R. Brown, Ph.D.
Giorgio Franceschetti, Ph.D.
Brian H. Kolner, Ph.D.
Joel Schulman, Ph.D.
Ming C. Wu, Ph.D.

Adjunct Associate Professor
Bijan Houshmand, Ph.D.

Adjunct Assistant Professor
Charles Chien, Ph.D.

Scope and Objectives
The Electrical Engineering Department emphasizes teaching and research in the fields of communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization/operations research, integrated circuits and systems, microelectromechanical systems/nanotechnology (MEMS/nano), photonic and optoelectronic, plasma electronics, signal processing, and solid-state electronics. In each of these fields, the department has state-of-the-art research programs exploring exciting new concepts and developments. Undergraduate students receive a B.S. degree in Electrical Engineering. Graduate research and training programs leading to the M.S. and Ph.D. degrees are also offered.

Laboratories are available for research in all of the above-mentioned areas, as well as in analog and digital electronics, VLSI circuits, integrated semiconductor devices, microwave and millimeter wave electronics, solid-state electronics, fiber optics, lasers and quantum electronics, and plasma electronics. The department is associated with the Center for High-Frequency Electronics and the Plasma Science and Technology Institute, two research centers at UCLA.

Department Mission
In partnership with its constituents, consisting of students, alumni, industry, and faculty members, the mission of the Electrical Engineering Department is to (1) produce highly qualified, well-rounded, and motivated students with fundamental and cutting-edge technical knowledge in electrical engineering to serve California, the nation, and the world, (2) pursue creative research and new technologies in electrical engineering and across disciplines in order to serve the needs of industry, government, society, and the scientific community by expanding the body of knowledge in the field, (3) develop partnerships with industrial and government agencies, (4) achieve visibility by active participation in conferences and technical and community activities, and (5) publish enduring scientific articles and books.

Undergraduate Program Objectives
The ABET-accredited electrical engineering curriculum gives an excellent background for either graduate study or employment. In consultation with its constituents, the Electrical Engineering Department has set its educational objectives as follows: (1) fundamental knowledge — to equip undergraduate students with knowledge of the fundamentals of electrical engineering, with exposure to both analytical techniques and experimentation, (2) specialization — to provide undergraduate students with the opportunity to specialize in electrical engineering, biomedical engineering, and computer engineering, (3) design skills — to equip undergraduate students with problem-solving skills and to help them develop the ability to solve engineering problems by participating in creative design projects, (4) professional skills — to equip undergraduate students with communication and leadership skills within an environment that nurtures ethical behavior, and (5) self-learning — to encourage undergraduate students to pursue self-learning and personal development experiences in a rigorous program and through participation in undergraduate research opportunities.

Undergraduate Study

Electrical Engineering B.S.

The Major
Course requirements are as follows (190 minimum units required):

1. One engineering breadth course from Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102, 103, M105A (or Chemical Engineering M105A)
2. Electrical Engineering 10, M16 (or Computer Science M51A), 101, 102, 103, 110, 110L, 113, 115A, 115AL, 121B, 131A, 132A, 141, 161, 172, Mathematics 113 or 132, Mechanical and Aerospace Engineering 182A
3. Five major field elective courses (18 units minimum) selected from those offered by the Electrical Engineering Department. Of the five courses, one laboratory course (4 units) and one design course (4 units) are required. With approval of the adviser, two may be selected from courses related to electrical engineering in other departments
4. Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31, 32; Electrical Engineering 1, 2; Mathematics 31A, 31B,
2. Computer Science 111, 180, Electrical En-
1. One engineering breadth course from Ma-

3. Three technical electives, including one

4. Chemistry and Biochemistry 20A; Com-

5. HSSEAS general education (GE) require-

Biomedical Engineering Option
Course requirements are as follows (201 mini-
mum units required):

1. Electrical Engineering 10, M16 (or Com-

2. Life Sciences 1 (satisfies HSSEAS GE life

3. Three technical electives, including one

4. Engineering Electromagnetics. (4) Lecture,
four hours; discussion, one hour; outside study,
seven hours. Requisites: course 1 or Physics 1C,
Mathematics 32A and 32B, or 33A and 33B. Electromag-
netic 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 grad-
ing.

102. Systems and Signals. (4) Lecture, four
hours; discussion, one hour; outside study, seven
hours. Requisites: course 1 or Physics 1C, Mathemat-
ics 32A and 32B, or 33A and 33B. Elements of differential equations, first-
and second-order equations, variation of parameters
method and method of undetermined coefficients, ex-
istence and uniqueness. Systems: input/output de-
scription, linearity, time-invariance, and causality. Im-
pulse response functions, superposition and convolu-
tion integrals. Laplace transforms and system
functions. Fourier series and transforms. Frequency
responses, responses of systems to periodic signals.
Sampling theorem. Letter grading.

103. Applied Numerical Computing. (4) Lecture,
three hours; discussion, one hour; outside study,
11 hours. Requisites: Civil Engineering 15 or Computer
Science 31 or Mechanical and Aerospace Engineer-
ing 20, Mathematics 33A, 33B. Introduction to numer-
al analysis and computing techniques: root finding,
matrix computations for systems of linear equations,
systems of nonlinear equations, numerical methods
for ordinary differential equations, least squares, eigenvalue/eigenvector problem, applications to engi-
neering problems. Letter grading.

110. Circuit Analysis II. (4) Lecture, three
hours; discussion, one hour; outside study, eight
hours. Requ-
isite: course 10. Corequisite: course 102. Sinusoidal
excitation and phasors, AC steady state analysis, AC
steady state power, network functions, poles and ze-
ros, frequency response, mutual inductance, ideal
transformer, application of Laplace transforms to cir-
cuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2) Labo-
atory, four hours; outside study, two hours. Requisite:
course 100 or 110. Experiments with basic circuits
containing resistors, capacitors, inductors, and op-
amps. Ohm’s law voltage and current division, Thewe-
nin and Norton equivalent circuits, superposition,
transient and steady state analysis, and frequency re-
sponse principles. Letter grading.

113. Digital Signal Processing. (4) Lecture,
four hours; discussion, one hour; outside study, seven
hours. Requisites: courses 102, 110. Relationship be-
tween continuous-time and discrete-time signals. Z-
transform. Discrete Fourier transform. Fast Fourier
transform. Structures for digital filtering. Introduction
to digital filter design techniques. Letter grading.

Upper Division Courses

100. Electrical and Electronic Circuits. (4) Lec-
ture, three hours; discussion, one hour; outside study,
eight hours. Requisites: course 1 or Physics 1C,
Mathematics 33A, 33B. Electrical quantities, linear
circuit elements, circuit principles, signal waveforms,
 transient and steady state circuit behavior, semicon-
ductor diodes and transistors, small signal models,
and operational amplifiers. Letter grading.

M16. Logic Design of Digital Systems. (4) Same
as Computer Science M51A.) Lecture, four hours;
discussion, two hours; outside study, six hours. Requ-
isite: Physics 1C. Introduction to digital systems.
Specification and implementation of combinational
and sequential systems. Standard logic modules and
programmable logic arrays. Specification and imple-
mentation of algorithmic systems: data and control
sections. Number systems and arithmetic algorithms.
Error control codes for digital information. Letter grad-
ing.
113D. Digital Signal Processing Design. (4) (Formerly numbered 113L) Laboratory, four hours; outside study, seven hours. Requisite: course 113. Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering, sinusoidal oscillators, Fourier transforms, and finite wordlength effects. Project involving design and implementation of signal processing systems for communications, speech, audio, or video using DSP chip. Letter grading.

114D. Speech and Image Processing Systems Design. (4) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Requisite: course 113. Design principles of speech and image processing systems, speech production and analysis, and modeling in first half of course; design techniques for image enhancement, filtering, and transformation in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.


115B. Analog Electronic Circuits II. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisite: course 115A. Experimental determination of device characteristics, resistive diode circuits, single-stage amplifiers, compound transistor stages, effect of feedback on single-stage amplifiers. Letter grading.

115AL. Analog Electronics Laboratory I. (2) Laboratory, four hours; outside study, two hours. Requisites: courses 110L, 115A. Experimental determination of device characteristics, resistive diode circuits, single-stage amplifiers, compound transistor stages, effect of feedback on single-stage amplifiers. Letter grading.

115BL. Analog Electronics Laboratory II. (4) Laboratory, four hours; outside study, eight hours. Requisites: courses 115BAL, 115B. Experimental and computer studies of microwave, wideband, tuned, and power amplifiers, and multilooop feedback amplifiers. Introduction to thick film hybrid techniques. Construction of amplifiers using hybrid thick film techniques. Letter grading.


116B. VLSI System Design. (4) Lecture, three hours; discussion, one hour; laboratory, four hours; outside study, four hours. Requisites: courses M16, 115C, and 116D. Familiarity with digital circuit, logic design, and computer architecture assumed. VLSI systems. Letter grading. Perspective, with focus on (1) core VLSI architecture concepts such as datapath design, clocking, power, speed, area tradeoff, input/output, packaging, etc. and (2) behavioral, register-transfer-function-oriented VLSI design using CAD tools and hardware description languages such as VHDL. Letter grading.

116C. Computer Systems Architecture. (4) (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 130B. Introduction to microprocessors and computer architecture. Design and organization of modern CPUs. Letter grading.

116D. Digital Design Project Laboratory. (4) (Same as Computer Science M152B.) Laboratory, four hours; discussion, two hours; outside study, six hours. Requisite: course M116C or Computer Science M151B. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.

116E. Microprocessor Design Laboratory. (4) (Same as Computer Science M152E.) Lecture, four hours; discussion, one hour; outside study, six hours. Requisite: course M116C or Computer Science M151B. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.

116F. Digital Design and Computer Architecture Project Laboratory. (4) Laboratory, four hours; discussion, two hours; outside study, six hours. Requisite: course M116D or Computer Science M151B. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.
161. Electromagnetic Waves. (4) Lecture, two hours; laboratory, four hours; outside study, eight hours. Revised. Limited to seniors. Multidisciplinary course with lectures and laboratory experiments on optical sensors. Fundamentals of intensity and interference-based transducers, polarimeters, multiplexing and sensor networks, physical and biomedical sensors. Design and implementation of optical gyroscopes, computer interfacing, and signal processing. Letter grading.

M150L. Introduction to Micromanufacturing and Micromechatronic Systems (MEMS) Laboratory. (2) (Same as Biomedical Engineering M150L and Mechanical and Aerospace Engineering M180L.) Lecture, one hour; laboratory, four hours; outside study, one hour. Corequisite: course M150. Hands-on introduction to micromanufacturing technologies and mechatronic systems laboratory. Methods of micromanufacturing and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students go through process of fabricating MEMS devices. Letter grading.

162A. Wireless Communication Links and Antennas. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 161B. Basic properties of transmitting and receiving antennas and antenna arrays. Array synthesis. Adaptive arrays. Friis transmission formula, radar equations. Cell-site and mobile antennas, bandwidth budget. Noise in communication systems (transmission lines, antennas, atmospheric, etc.). Cell-site and mobile antennas, cell coverage for signal and traffic, interference, multipath fading, ray tracing, and other propagation phenomena. Letter grading.

163A. Introductory Microwave Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 161. Transmission lines description of waveguides, impedance transformers, power dividers, directional couplers, filters, hybrid junctions, nonreciprocal devices. Letter grading.

163B. Microwave and Millimeter Wave Active Devices. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 121B. MESFET, HEMT, HBT, IMPATT, Gunn, small signal models, noise model, large signal model, loadpull method, parameter extraction technique. Letter grading.

163C. Active Microwave Circuits. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 115A, 161. Theory and design of microwave transistors and oscillators; stability, noise, distortion. Letter grading.

164AL. Microwave Wireless Laboratory I. (2) Lecture, one hour; laboratory, three hours; outside study, three hours. Requisite: course 161. Measurement techniques and instrumentation for active and passive microwave components; cavity resonators, waveguides, wave meters, slotted lines, directional couplers. Design, fabrication, and characterization of microwave circuits in microstrip and coaxial systems. Letter grading.

164DL. Microwave Wireless Laboratory II. (2) Formerly numbered 164AL. Lecture, one hour; laboratory, two hours; outside study, three hours. Requisite: course 161. Microwave integrated circuit design from a wireless system perspective, with focus on (1) use of microwave circuit simulation tools, (2) design of wireless transceivers, including low noise amplifiers, mixer, and power amplifiers, (3) knowledge and skills required in wireless integrated circuit characterization and implementation. Letter grading.

167L. 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, Computer Science 171. Limited to seniors. Interpretation of analog-signaling aspects of digital systems and data communications through experiences in using contemporary test instruments to generate and display signals in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, digital computers, terminals, modems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modem and terminal characteristics, and interfaces. Letter grading.

172. Introduction to Lasers and Quantum Electronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 101. Physical applications and principles of lasers, Gaussian optics, resonant cavities, atomic radiation, laser oscillation and amplification, and pulsed lasers. Letter grading.

172L. Laser Laboratory. (4) Laboratory, four hours; outside study, eight hours. Requisite or corequisite: course 121B. Preparation includes saturation phenomenon, gain, mode structure. Laser applications, including optics, modulation, communication, holography, and interferometry. Letter grading.

173DL. Photonic Sensor Design Laboratory. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 102. Recommended: course 132A. Introduction to basic principles of photonic devices. Topics include crystal optics, dielectric optical waveguides, waveguide couplers, electro-optic devices, and the angular selectivity of optical devices. Basic concepts of harmonic generation, optical Kerr effect, optical switching devices. Letter grading.

173DL. Photonics and Communication Design Laboratory. (4) Laboratory, four hours; outside study, eight hours. Requisite: course 102. Recommended: course 132A. Introduction to basic principles of photonic devices, including LEDs, lasers, detectors, and amplifiers; fiber-optic fundamentals and measurement of fiber systems. Modulation techniques, including A.M., F.M., phase and suppressed carrier methods. Letter grading.

174. Semiconductor Optoelectronics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 121B. Introduction to semiconductor optoelectronic devices for optical communications, interconnects, and signal processing. Basic physics of semiconductors, pin photodiodes, avalanche photodiode detectors (APD), light-emitting diodes (LED), semiconductor lasers, optical amplifiers and modulators, and typical optical systems. Letter grading.

175. Fourier Optics. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: courses 102, 161. Two-dimensional linear systems and Fourier transforms. Foundation of diffraction theory. Analysis of optical imaging systems. Spatial filtering and optical information processing. Wavefront reconstruction and holo graphy. Letter grading.

176. Lasers in Biomedical Applications. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 101. Study of different types of laser systems and their operation. Examination of their roles in current and projected biomedical applications. Specific capabilities of laser radiation to be related to each example. Letter grading.

180D. Systems Design. (4) (Formerly numbered 190D.) Lecture, two hours; laboratory, two hours; outside study, eight hours. Limited to senior Electrical Engineering majors. Advanced design integrating communications, control, and signal processing subsystems. Different project to be assigned year in which student teams create high-performance design that manage trade-offs among subsystems. Letter grading.

185. Introduction to Plasma Electronics. (4) (Same as Physics M122.) Lecture, three hours. Requisite: course 101 or Physics 110A. Senior-level introductory course on electronics of ionized gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

192. Special Courses in Electrical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in electrical engineering for undergraduate students that are taught on experimental or temporary basis, such as courses taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. Letter grading.

199. Directed Research in Electrical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required. Enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201A. VLSI Architectures and Design Methodologies. (4) Lecture, four hours; outside study, eight hours. Requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment.

202A. Embedded and Real-Time Systems. (4) Lecture, four hours; outside study, eight hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for behavioral synthesis, system synthesis, and real-time issues in embedded systems. Topics include behavioral synthesis, hardware/software co-design, interface synthesis, scheduling, real-time constraints, real-time specification and modeling, transformation and estimation during synthesis and design optimization, concurrency, real-time OS, and embedded processors. Design for low power, verification, and debugging.

204A. Advanced Compilers. (4) Lecture, four hours; outside study, eight hours. Requisites: Computer Science 132, 251A. Designed for graduate computer science and electrical engineering students. Efficient allocating of shared resources (buses, function units, register files) is one of most important areas of research in modern computer architecture and compiler research. Consideration of instruction selection and scheduling, register assignment, and low-level transformation in context of concurrent microarchitecture (e.g., VLIW, superscalar, and most DSP). Topics include mapping to specific microprocessors, understanding instruction and memory systems, and instruction level parallelism. Letter grading.

205A. VLSI Architectures and Design Methodologies. (4) Lecture, four hours; outside study, eight hours. Requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment.

202A. Embedded and Real-Time Systems. (4) Lecture, four hours; outside study, eight hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for behavioral synthesis, system synthesis, and real-time issues in embedded systems. Topics include behavioral synthesis, hardware/software co-design, interface synthesis, scheduling, real-time constraints, real-time specification and modeling, transformation and estimation during synthesis and design optimization, concurrency, real-time OS, and embedded processors. Design for low power, verification, and debugging.

204A. Advanced Compilers. (4) Lecture, four hours; outside study, eight hours. Requisites: Computer Science 132, 251A. Designed for graduate computer science and electrical engineering students. Efficient allocating of shared resources (buses, function units, register files) is one of most important areas of research in modern computer architecture and compiler research. Consideration of instruction selection and scheduling, register assignment, and low-level transformation in context of concurrent microarchitecture (e.g., VLIW, superscalar, and most DSP). Topics include mapping to specific microprocessors, understanding instruction and memory systems, and instruction level parallelism. Letter grading.
206A. Mobile and Wireless Networked Computing Systems. (4) Lecture, four hours; outside study, eight hours. Design of computer science and electrical engineering students. Interdisciplinary course covering mobile computing, wireless networking, and multimedia processing techniques for computer systems capable of ubiquitous transport and processing of multimedia information. Topics include wireless and cellular fundamentals, network mobility management, low-power portable node architecture, mobile IP, wireless TCP, middleware and operating system issues, and context-aware adaptive applications. Letter grading.


209S. Special Topics in Embedded Computing Systems. (4) Lecture, four hours; outside study, eight hours. Current topics in embedded computing systems, including but not limited to processor and system architecture, real-time, low-power design. S/U or letter grading.


211B. Digital Image Processing II. (4) Lecture, three hours; laboratory, four hours; outside study, five hours. Requisite: course 211A. Advanced digital image processing theory and techniques. Topics include image modeling, restoration, still-frame and video image compression, tomographic imaging, and multiresolution analysis using wavelet transforms. Letter grading.


212B. Multirate Systems and Filter Banks. (4) Lecture, three hours; outside study, nine hours. Requisite: course 212A. Fundamentals of multirate systems; polyphase representation; multistage implementations; applications of multirate systems; maximally 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, nine hours. Requisites: courses 212A, M216A. Digital filter design and optimization tools, architectures for digital signal processing. General discussion of module design for digital signal processing; programmable signal processors; CAD tools and cell libraries for applications-specific integrated circuit design; case studies of specific applications and design methodologies. Letter grading.

M214A. Digital Speech Processing. (4) (Same as Biomedical Engineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 113. Theory and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-band models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

214B. Advanced Topics in Speech Processing. (4) Lecture, three hours; computer assignments, two hours; outside study, seven hours. Requisite: course M214A. Advanced techniques used in various speech-processing applications, with focus on signal processing for speech and hearing. Letter grading.

215A. Analog Integrated Circuit Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115B. Analysis and design of analog integrated circuits, MOS and bipolar device structures and models, single-stage and differential amplifiers, noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.

215B. Advanced Digital Integrated Circuits. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 115C, M216A. Analysis and comparison of modern logic families (CMOS, bipolar, BiCMOS, MOS, GaAs), MSI digital circuits (flipflops, registers, counters, PLA), VLSI memories (ROM, RAM, CCD, bi-level and multilevel ROM, EEPROM) and VLSI systems. Letter grading.

215C. Analysis and Design of RF Circuits and Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 215A. Principles of RF circuit and system design, with emphasis on monolithic implementation in VLSI technologies. Basic concepts, communications backbone, transceiver architectures, low-noise amplifiers and mixers, oscillators, frequency synthesizers, power amplifiers. Letter grading.

215D. Analog Microsystem Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 215A. Analysis and design of data conversion interfaces and filters for microelectromechanical systems; design of conversion architectures, D/A conversion techniques, A/D converter architectures, building blocks, precision techniques, discrete- and continuous-time filters. Letter grading.

215E. Sampling and Synchronization. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Study of algorithms and design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methodologies, phase-locked loop design for clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Same as Computer Science M258A.) Lecture, four hours; outside study, three hours. Requisites: courses 115C or 211A, M216A. Advanced digital design and implementation of complex integrated circuits. Letter grading.

M216B-M216C. LS1 in Computer System Design. (4) (Same as Computer Science M258B-M258C.) Lecture, three hours; laboratory, four hours; outside study, seven hours. Requisite: course M216A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. In Progress (M216B) and S/U or letter (M216C) grading.

217. Biomedical Imaging. (4) (Same as Biomedical Engineering M217.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 113D or 211A. Mathematical principles of medical imaging modalities: X-ray, computed tomography, positron emission tomography, single photon emission computed tomography, magnetic resonance imaging. Topics include basic principles of imaging systems, image reconstruction algorithms, system configurations and their effects on reconstruction algorithms, specialized imaging techniques for specific applications. Letter grading.

219A. Special Topics in Circuits and Signal Processing. (4) Lecture, three hours; outside study, nine hours. Advanced treatment of topics selected from research areas in circuit theory, integrated circuits, or signal processing. Letter grading.

221A. Physics of Semiconductor Devices I. (4) Lecture, four hours; outside study, eight hours. Physical principles and device considerations of junction and field-effect devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; outside study, eight hours. Principles and design considerations of field-effect devices and charge-coupled devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) Lecture, four hours; outside study, eight hours. Physical principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors. Letter grading.


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224. Solid-State Electronics II. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Techniques to solve Bode-Maxim transport equation, various scattering mechanisms in semiconductor devices, high field transport properties in semiconductors, Monte Carlo method in transport. Optical properties. Letter grading.


229. Seminar: Advanced Topics in Solid-State Electronics. (4) Seminar, four hours; outside study, eight hours. Requisites: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electron emission. Letter grading.

229S. Advanced Electrical Engineering Seminar. (2) Seminar, two hours; outside study, four hours. Preparation for successful writing 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 a tutorial topic and on a research topic in their dissertation area. May be repeated for credit. S/U grading.

230A. Estimation and Detection in Communication and Radar Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection concepts in communication and radar systems: random signal and noise characteristics by analytical and simulation methods; mean square (MS) and maximum likelihood (ML) estimators; decision under ML, Bayes, and Neyman-Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability evaluations. 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 receivers in Gaussian noise; comparison of digital modulation methods and adaptive equalization; applications to modern communication systems. Letter grading.


230D. Signal Processing in Communications. (4) Lecture, four hours; outside study, eight hours. Requisite: course 230C. Basic digital signal processing techniques for estimation and detection of signals in communication and radar systems. Optimization of dynamic range quantization, and state constraints; DFT, convolution, FFT, NTT, Winograd DFT, systolic array; spectral analysis-windowing, AR, and ARMA; system applications. 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 limits and algorithms for lossless data, mechanisms of conductivity, 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, convolutional codes, trellis codes, and turbo 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. Queue modeling 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/flow control, switching, routing, protocols. Applications to local-area, packet-radio, local-distribution, 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 which may be formulated as flow problems in capacity constrained (or cost constrained) networks. Development of tools of network flow theory using graph theoretic methods; application to communication, transportation, and transmission problems. Letter grading.

233A. Wireless Communication Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 230B. Discussion of theory of physical layer and medium access design for wireless communication systems. Topics include wireless signal propagation and channel modeling, information theoretic studies of wireless models, performance analysis, single carrier and spread spectrum modulation for wireless systems, diversity techniques, multiple-access schemes. Letter grading.

233B. Wireless Communications Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 230B. Various aspects of physical layer and medium access design for wireless communication systems. Topics include wireless signal propagation and channel modeling, single carrier and spread spectrum modulation for wireless systems, diversity techniques, multiple-access schemes, transmitter design and effects of nonideal components, hardware partitioning issues. Case study highlights system level trade-offs. Letter grading.


237. Stochastic Dynamic Programming. (4) Lecture, four hours; outside study, eight hours. Requisite: recommended course 233A or 236A or 236B. Introduction to mathematical analysis of sequential decision processes. Finite horizon model in both deterministic and stochastic cases. Finite-state infinite horizon model. Methods of solution. Examples from inventory control, finance, optimal control and estimation, Markov decision processes, combinatorial optimization, communications. Letter grading.

239AS. Topics in Communication. (4) Lecture, four hours; outside study, eight hours. Topics in one or more special aspects of communication systems, such as phase-coherent communication systems, optical channels, time-variant channels, feedback channels, broadcast channels, convolution and decoding techniques. May be repeated for credit with topic change. Letter grading.

239BS. Topics in Operations Research. (4) Lecture, four hours; outside study, eight hours. Treatment of one or more selected topics from areas such as integer programming; combinatorial optimization; network synthesis; scheduling, routing, location, and design problems; implementation considerations for mathematical programming algorithms; stochastic programming; applications in engineering, computer science, economics. May be repeated for credit with topic change. Letter grading.

239A. Linear Dynamic Systems. (4) Same as Mechanical 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-variying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular value decomposition, Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principles; Constructions with transfer function techniques. Letter grading.

246B. 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 LQR, or 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 M280C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Application of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynam- istic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.


241C. Stochastic Control. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 240B, 241B. Linear quadratic Gaussian theory of optimal feedback control of stochastic systems; discrete-time state-space models; singular perturbation techniques and separation principle; dynamic programming; compen- sator design for time invariant systems; feedback control and servomechanisms, extensions to nonlin- ear systems; applications: interception guidance, gust alleviation. Letter grading.


243. Robust and Optimal Control by Convex Meth- ods. (4) Lecture, four hours; outside study, eight hours. Requisite: course M240A. Multivariable robust control, including H2 and H-infinity optimal control and robust performance analysis and synthesis against structured uncertainty. Emphasis on convex methods for analysis and design, in particular linear matrix inequality (LMI) approach to control. Letter grading.

M248S. Seminar: Systems, Dynamics, and Con- trol 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. Presenta- tions of research topics by leading academic re- searchers from fields of systems, dynamics, and con- trol. Students who work in these fields present their papers and results. S/U grading.

249S. Topics in Control. (4) Seminar, four hours; outside study, eight hours. Thorough treatment of one or more aspects of control theory and applications, such as classical and modern methods for optimal control; stability of distributed systems; identification; adaptive control; nonlinear filtering; differential games; applica- tions to flight control, nuclear reactors, process con- trol, biomedical problems. May be repeated for credit with topic change. Letter grading.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.Engr.) degree (through the Engineering Executive Program) 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

87. Introduction to Engineering Disciplines. (4) (Formerly numbered 97.) Lecture, four hours; discussion, four hours; outside study, four hours. Introduces engineering students to the breadth of engineering fields and the way engineering and technology relate to major ethical and social issues. Letter grading.

183. Engineering and Society. (4) (Formerly numbered 193.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to junior/senior engineering students. Professional and ethical considerations in practice of engineering. Impact of technology on society and on development of moral and ethical values. Contemporary environmental, biological, legal, and other issues created by new technologies. Letter grading.

185. Art of Engineering Endeavors. (4) (Formerly numbered 195.) Lecture, four hours; discussion, one hour; outside study, 12 hours. Designed for seniors. Importance of group dynamics in engineering practice. Teamwork and effective group skills in engineering environments. Organization and control of multidisciplinary complex engineering projects. Forms of leadership and qualities and characteristics of effective leaders. How engineering, computer sciences, and technology relate to major ethical and social issues. Societal demands on practice of engineering. Letter grading.

Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture; four hours; outside study, eight hours. Designed for graduate students. Practical review of necessary processes and procedures to successfully manage technology programs. Review of fundamentals of program planning, organizational structure, implementation, and performance tracking methods to provide program manager with necessary information to support decision-making processes. May be applied toward major requirements. Limited to graduate students.


471A-471B-471C. The Engineer in the General Environment. (3-3-3-1.5) Lecture; three hours (471A, 471B) and 90 minutes (course 471C). Limited to Engineering Executive Program students. Influences of human relations, laws, social sciences, humanities, and fine arts on development and utilization of natural and human resources. Interaction of technology and society past, present, and future. Change agents and resistance to change. S/U or letter (471A) grading; In Progress (471B) and S/U or letter (471C) grading.

472A-472B. The Engineer in the Business Environment. (3-3-3-1.5) Lecture; three hours (472A, 472B, 472C) and 90 minutes (course 472D). Limited to Engineering Executive Program students. Language of business for the 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).
The Bachelor of Arts degree in English provides some of the most influential writers who have helped during the past millennium to make English a global language that possesses richly diverse and highly influential literary cultures. Within the department, students are able to pursue a variety of approaches to the study of literary culture beyond the strictly historical — literary criticism, for example, or those that draw on the resources of such disciplines as sociology, psychology, and philosophy. Within the B.A. degree in English, qualified students may elect a concentration either in creative writing or in world literature. The department also offers a Bachelor of Arts degree in American Literature and Culture.

An understanding and appreciation of literature can furnish lifelong rewards. In addition to such personal benefits, the department seeks to impart the capacity to make balanced critical judgments and the ability to write the English language persuasively, with point and effect. Such skills are essential to success in a variety of professions for which the major in English can provide excellent preparation, including law, administration, business, and teaching.

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.

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 later 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.

The Bachelor of Arts degree has concentrations in creative writing and in world literature.
An international students program in English is also offered.

**Preparation for the Major**

*Required:* English Composition 3, English 4W, 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](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve 4- or 5-unit upper division English courses, including 141A or 141B, 142A, 142B, 143, at least one course from each of the 150A through 157 series and M179A through 182C series, one course from 160 through 164, and five additional courses of which three must be selected from 140A, 140B, 142C, or 150A through 182C. All courses applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

Students are encouraged to select additional electives from courses 140A through 182C. English 140A is especially recommended if they plan graduate work in literature. They may wish to select several courses in the relevant classical and postclassical foreign literatures and thought.

**Optional Concentrations and Special Programs**

The department offers optional concentrations in creative writing and in world literature, as well as a special program for international students. For all programs, the regular Preparation for the Major sequence as well as the departmental foreign language requirement apply. Because of the specialized nature of these programs, students should consult the departmental counselor before selecting and declaring one of them as a concentration.

**Creative Writing Concentration**

The creative writing concentration consists of English 142A and 142B and a minimum of 10 additional 4- or 5-unit upper division English courses: three creative writing courses from 133 or 134, taken in a single genre (poetry or short story), three literature courses paralleling the creative writing genre, and four electives selected from courses 140A through 182C. Students may declare this program as a concentration only after they have completed three creative writing workshops in a single genre. Students may not enroll in more than one workshop (course 133, 134, or 135) per term or in more than two workshops with the same instructor. No student may take for credit more than three workshops in any one creative writing genre. Students planning to select this program should contact the departmental counselor for further details.

**World Literature Concentration**

The world literature concentration consists of nine 4- or 5-unit upper division courses in English or American literature and four upper division courses in foreign literatures (at least 4 units each and one of which must be taught in the original language). The nine courses in English must include 141A or 141B or 143, 142A, 142B, at least one course from the 150 series, and four electives selected from courses 140A through 182C (students intending graduate work in literature are especially encouraged to take English 140A). A listing of acceptable courses may be obtained from the department.

**International Students Program**

The department offers a special program in English to bona fide international students whose native language is other than English. For this program, students must satisfy all requirements listed under Preparation for the Major; they may fulfill the departmental foreign language requirement with their own native language. The following 12 4- or 5-unit upper division courses are required for the program itself: English as a Second Language 106, 108, 109, English 121 or 122 or Applied Linguistics and Teaching English as a Second Language C116, English 142A, 142B, and six courses from English 100 through 199, four of which must be selected from 140A through 182C. Students who complete this program and wish to pursue graduate study should consult the departmental counselor about programs of study and requirements for admission.

**American Literature and Culture B.A.**

**Preparation for the Major**

*Required:* English Composition 3, English 4W, 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](http://www.admissions.ucla.edu/prospect/adm_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**

*Required:* Twelve 4- or 5-unit upper division courses, including six in American literature selected from English 170A through 178B, two of which must be devoted to literature written before 1900 (courses 170A, 170B, 171A, 171B, 173A, 174A); two courses from 142A, 142B, 143; one seminar from M179A, M179B, M179C, 182A, 182B, 182C, or when treating American topics, 180; one course from M101A, M101B, M102A, M102B, 103, M104A, M104B, M104C, M105A, M105B, 106, M107A (also M101C or M107C when treating American topics or figures), or 109; and two courses from 100 through 199 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). All courses 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 English 140A or 140B during the junior year and one seminar from the English M179A through 182C sequence, preferably before the senior 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. 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. The thesis determines whether they receive highest honors, honors, or no honors.

**Subject Matter Preparation Program for Single Subject Credential in English**

Students interested in obtaining a single subject secondary school credential in English should consult with a departmental counselor regarding the requirements for a waiver from the English California Subject Examination for
English
Lower Division Courses

4HW. Critical Reading and Writing (Honors). (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. 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 pages (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 four pages (three to five pages each) and two in-class essays. Satisfies Writing II requirement. Letter grading.

10A. English Literature to 1660. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Study of selected works of period, beginning with selections from Old English poetry and including writings by Chaucer, Spenser, Shakespeare, Donne, and Milton. Minimum of three papers (three to five pages each) or equivalent. P/NP or letter grading.

10B. English Literature, 1660 to 1832. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW, 10A. Study of selected works of period, including writings by Dryden, Pope, Swift, Wordsworth, and Keats. Minimum of three papers (three to five pages each) or equivalent. P/NP or letter grading.

95A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 10A or 10B. Study of selected masterpieces of English literature from 1800 to the present, including works of such writers as Wordsworth, Coleridge, Keats, Tennyson, Dickens, Browning, Yeats, Joyce, and Eliot.

85A. American Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Introduction to chief American authors, with emphasis on poetry, nonfiction prose, and short fiction of such writers as Poe, Dickenson, Emerson, Whitman, Twain, Frost, and Hemingway. P/NP or letter grading.

341. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Development, with emphasis on form, of American novel from its beginning to the present day. Includes works of such novelists 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. Limited to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading.

75. Major British Authors, 1800 to the Present. (4) Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 10A or 10B. Study of selected masterpieces of English literature from 1800 to the present, including works of such writers as Wordsworth, Coleridge, Keats, Tennyson, Dickens, Browning, Yeats, Joyce, and Eliot.

70. Major British Authors before 1800. (4) Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 10A or 10B. Study of selected masterpieces of English literature before 1800, including works by such writers as Chaucer, Shakespeare, Donne, Milton, Swift, Pope, Johnson, and Fielding.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in English.
97H. Honors Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced requisites: English Composition 3 or 3H. Study of a particular topic, genre, or subgenre in literature such as satire, biography, parody, or a specialized classification of literature. May be repeated for credit. P/NP or letter grading.

Upper Division Courses

100. Introduction to Special Topics and Genres. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of a particular topic, genre, or subgenre in literature such as satire, biography, parody, or a specialized classification of literature. May be repeated for credit. P/NP or letter grading.


M101C. Special Topics in Lesbian and Gay Literature. (5) (Formerly numbered M197D.) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M101C and Women’s Studies M101C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in lesbian and gay literature. Topics focus on particular problem or issue in terms of its relationship to lesbian and gay culture and history. May be repeated for credit. P/NP or letter grading.


M102B. Asian American Literature since 1980. (5) (Same as Asian American Studies M102B.) Lecture, four hours. Requisite: English Composition 3 or 3H. Survey of contemporary Asian American literature with emphasis on its growing ethnic diversity following influx of new immigrants. Works of such authors as Theresa Cha, Bharati Mukherjee, David Wong Louie, Garrett Hong, and Jessica Hagedorn included. P/NP or letter grading.

M104A. Early African-American Literature. (5) (Same as African-American Studies M104A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Introductory survey of African-American literature from the 18th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays), by authors such as Phillis Wheatley, David Walker, Frederick Douglass, Harriet Jacobs, Paul Laurence Dunbar, Charles W. Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. African-American Literature from Harlem Renaissance to the 1960s. (5) (Same as Afro-American Studies M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African-American literature produced from rise of Black Arts Movement of the 1960s to the present by authors such as Amiri Baraka, Nikki Giovanni, Alice Walker, Etheridge Knight, Toni Morrison, Martin Luther King, Jr., Paule Marshall, Ernest Gaines, Ishmael Reed, and Audre Lorde. P/NP or letter grading.

M105A. Early Chicana/Chicana Literature. (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 the 18th century through Zoot Suit Riots (1943), including oral and written forms (corridos, folktales, essays, memoirs, novels, and poetry) by such authors as Cabeza de Vaca, Juan Seguin, Américo Paredes, and Maria Ruiz Amparo Burton. P/NP or letter grading.

M105B. Recent Chicana/Chicana Literature. (5) (Same as Chicana and Chicano Studies M105B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature since the 1960s, beginning with Zoot Suit Riots and continuing through Chicana/Chicana Movement to contemporary literature. Drama, novels, memoirs, essays, and poetry by such authors as Luis Valdez, Cherríe Moraga, Sandra Cisneros, Rodolfo Anaya, Rolando Hinojosa, Oscar Zeta Acosta, and Ana Castillo. P/NP or letter grading.

106. Native American Literary Studies. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of Native American oral cultures through translated documents (song-poems, life-stories, myths, tales, dream visions, speeches) and/or images in writing about Native Americans (poetry, fiction, history, anthropology, sociology). P/NP or letter grading.

M107A. American Women Writers. (5) (Same as Women’s Studies M107A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by American women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by American women. P/NP or letter grading.

M107B. British Women Writers. (5) (Same as Women’s Studies M107B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by British women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by British women. P/NP or letter grading.

M107C. Special Topics in Women and Literature. (5) (Same as Women’s Studies M107C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in women and literature, with emphasis on a period, genre, particular theme, or nonnational literary grouping. P/NP or letter grading.


108C. English Bible as Literature: Special Topics. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of the English Bible, with attention to particular literary themes, motifs, and genres. Possible discussion of influence of the Bible on discrete periods or individual authors in English literature. May be repeated for credit. P/NP or letter grading.

109. Interdisciplinary Approaches to Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of British or American literature in relation to other disciplines such as history, politics, philosophy, psychology. May be repeated for credit. P/NP or letter grading.

110. Studies in Individual Authors. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Specialized study of the work of a single poet, dramatist, prose writer, or novelist. May be repeated for credit. P/NP or letter grading.

111A. Oral Tradition. (4) (Formerly numbered M111A.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Designed for juniors/seniors. Survey of folklore of the peoples of Britain, with attention to their history, function, and regional differences. P/NP or letter grading.

111B. British Folklore and Mythology. (4) (Formerly numbered M111B.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of early materials, chiefly literary, for study of mythic traditions of the Celtic peoples, ranging from ancient Gaul to medieval Ireland and Wales. P/NP or letter grading.

111C. Celtic Mythology. (4) (Formerly numbered M111C.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of early materials, chiefly literary, for study of mythic traditions of the Celtic peoples, ranging from ancient Gaul to medieval Ireland and Wales. P/NP or letter grading.

111E. Survey of Medieval Celtic Literature. (4) (Formerly numbered M111E.) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of early materials, chiefly literary, for study of mythic traditions of the Celtic peoples, ranging from ancient Gaul to medieval Ireland and Wales. P/NP or letter grading.

112. Children’s Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of historical backgrounds and development of types of children’s literature, folklore and oral tradition, levels of interest, criticism and evaluation, illustration and bibliography. P/NP or letter grading.

113. Literature for Adolescents and Young Adults. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Analysis and evaluation of literature intended mainly for students in junior and senior high schools. Review of mature books that are popularly suggested for this age group; study of interests and reading habits of young adults. P/NP or letter grading.
114. World Literatures in English. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literature in the modern speaking regions of the world, reviewing major genres from several countries and making cross-comparisons with the literatures. Generalizations concerning the nature of the English used by such writers. May be repeated for credit. P/NP or letter grading.

115A. American Popular Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of main currents of popular and cultural taste as reflected in such genres as dime novels, detective fiction, and Western stories. P/NP or letter grading.

115B. British Popular Literature. (4) Lecture, four hours. Enforced requisite: English Composition 4 or 3H. Readings in the literature of the British masses, from 16th-century broadsides to contemporary novels. Examination of social functions of literature. P/NP or letter grading.


117. Detective Fiction. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of British and American detective fiction and the literature of detection. P/NP or letter grading.

118. Film and Literature. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of interdisciplinary relationships between film and literature, including theme and structure, and focusing on cinematic adaptations of literary works. P/NP or letter grading.

119. Literature of California and the American West. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of literature in English dealing with exploration, settlement, and emergent cultural awareness of the Western U.S. P/NP or letter grading.

120. Literature and Society. (5) Formerly numbered 190.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of interdisciplinary relationships between literature and social, economic, or political history. May be repeated for credit. P/NP or letter grading.

121. History of the English Language. (4) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Study of history of English literature from the Middle English period to the present. P/NP or letter grading.

122. Introduction to Structure of Present-Day English. (4) Lecture, four hours. 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.

123. Creative Writing: Poetry. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. English 4W or 4HW. Weekly exercises in writing of poetry, with practice in standard forms and meters and study of techniques. Classroom discussion based on written work in progress in more than one section per term 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.

124. Creative Writing: Short Story. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. English 4W or 4HW. Three average-length stories to be completed each term. Some stories may, with instructor's consent, be substantial revisions of other stories presented. Classroom discussion based on stories presented. 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.

125. Creative Writing: Drama. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Exploration of capacity of each student to write for the theater. Class discussion of student writing, individual conferences, rehearsed readings, and laboratory productions. 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.

127. Advanced Computer Techniques for Studying Literature. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H, English 4W or 4HW. Concurrent instruction in writing computer programs for literary study and in the kinds of literary research that can be done by computers. CSIC is taught; students must know how to operate a computer. Principles of computer science neither assumed nor taught. P/NP or letter grading.

140A. Criticism: History and Theory. (5) Lecture, four hours. Enforced requisite: courses 10A, 10B. Study of some major historical documents and theoretical statements in history of literary criticism, including works by such writers as Plato, Aristotle, Horace, Sidney, Dryden, Johnson, Kant, Coleridge, Wordsworth, Shelley, Arnold, James, Croce, and T.S. Eliot, with emphasis on major critical positions posed and developed by these writers, basis of their theoretical positions, and practical influence of those positions. Possible discussion of recent trends in criticism. P/NP or letter grading.

140B. Criticism: Special Topics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Study of selected topics in history of literary criticism. Some courses may be based on student use. Enrollment in more than one class not permitted. May be repeated for credit. P/NP or letter grading.

141A. Chaucer: The Canterbury Tales. (5) Lecture, four hours. Requisites: courses 10A, 10B. Introduction to Chaucer's language, versification, and historical and literary background, including analysis and discussion of his long major poem, The Canterbury Tales. Satisfies department's Chaucer requirement. P/NP or letter grading.

141B. Chaucer: Trojanus and Criseyde and Selected Minor Works. (5) Lecture, four hours. Requisites: courses 10A, 10B. Introductory study of Chaucer's language, versification, and historical and literary background, including analysis and discussion of his major work, The Canterbury Tales. Satisfies department's Chaucer requirement. P/NP or letter grading.

142A. Shakespeare: Poems and Early Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Intensive study of selected poems and representative comedies, histories, and tragedies through Hamlet. P/NP or letter grading.

142B. Shakespeare: Later Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Intensive study of representative plays, major tragedies, Roman plays, and romances. P/NP or letter grading.

150A. Early Medieval Literature. (5) Lecture, four hours. Requisites: courses 10A, 10B. Reading knowledge of Old English not required. Major prose and poetry of Anglo-Saxon England (600 to 1100), including epic, romance, history, saints' lives, and travel literature. Texts and topics include Beowulf, Visions, poems on women, Bede, and King Alfred. P/NP or letter grading.

150B. Later Medieval Literature. (5) Lecture, four hours. Requisites: courses 10A, 10B. Reading and historical explication of major events of the 14th and 15th centuries (e.g., the Gawain-poet, Langland, Gower, Malory, miracle and morality plays, prose, and lyrics). The more difficult texts read in modernized form. P/NP or letter grading.


152A. Drama from Beginning to 1576. (5) Lecture, four hours. Requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

152B. Drama, 1567 to 1642. (5) Lecture, four hours. Requisites: courses 10A, 10B. Non-Shakespearean English drama from opening of first public playhouse to closing of the theaters. P/NP or letter grading.


154. Literature of Restoration and Early 18th Century, 1660 to 1730. (5) Lecture, four hours. Requisites: courses 10A, 10B. Study of major works as literary documents and as products of 18th-century thought. P/NP or letter grading.

156. Drama, 1660 to 1842. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Survey of works of major English novelists from Defoe through Scott. P/NP or letter grading.

157. The Novel to 1832. (5) Lecture, four hours. Requisites: courses 10A, 10B. Study of major works as literary documents and as products of 19th-century thought. P/NP or letter grading.

158. Literature of Later 18th Century, 1730 to 1798. (5) Lecture, four hours. Requisites: courses 10A, 10B. Study of major works as literary documents and as products of later 18th-century thought. P/NP or letter grading.

160. Earlier Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Study of major works as literary documents and as products of the Romantic and earlier 19th-century thought. P/NP or letter grading.

161. Later Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Study of major works as literary documents and as products of the Romantic and earlier 19th-century thought. P/NP or letter grading.

162. Earlier Victorian Poetry and Prose. (5) Lecture, four hours. Requisites: courses 10A, 10B. Study of poetry and prose of the Victorian age from passage of the first Reform Bill through the high Victorian period, including such authors as Tennyson, Browning, Arnold, Carlyle, Mill, and Newman. P/NP or letter grading.

163. Later Victorian Poetry and Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Study of poetry and prose of later Victorian age from Pre-Raphaelitism through aesthetic and decadent movements, along with other intellectual trends, including such authors as Ruskin, Swinburne, Pater, Hopkins, Hardy, Wilde, and Yeats. P/NP or letter grading.
137A. American Fiction from 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Study of American fiction since 1945. May be repeated for credit. P/NP or letter grading.

137B. American Fiction, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Study of American novels and short stories from the beginning of the 20th century to end of World War II. P/NP or letter grading.

137C. American Fiction since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Study of American novels and short stories since 1945. May be repeated for credit. P/NP or letter grading.

174A. American Poetry, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Study of American poetry from 1900 to 1945. May be repeated for credit. P/NP or letter grading.


175A. American Fictional Prose. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of American fictional prose (novels, short stories, and other) and the historical period in which it was written. May be repeated for credit. P/NP or letter grading.

176. American Drama, 1842 to 1945. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C (for Theater and Film and Television majors the 10A, 10B, 10C requisites are waived). Survey of American and British drama, with its principal continental influences, from 1842 through World War II. P/NP or letter grading.

176A. American Drama, 1945 to the Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Study of American drama, with its principal continental influences, since World War II. P/NP or letter grading.

177. Special Topics in American Literature. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of some aspect or theme in American literature. May be repeated for credit. P/NP or letter grading.


179A. American Literature, 1775 to 1832. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of American literature during the Revolutionary and early republic periods. P/NP or letter grading.

179B. American Literature, 1775 to 1832. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. Study of American literature during the Revolutionary and early republic periods. P/NP or letter grading.

179C. American Literature, 1832 to 1865. (5) Lecture, four hours. Requisites: courses 10A, 10B, 10C. American literature from Jacksonian era to end of Civil War. P/NP or letter grading.

179D. American Literature, 1866 to 1912. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, 10C. Historical survey of American literature during the Gilded Age and the Progressive Era. P/NP or letter grading.

180. Specialized Studies in Literature. (5) Formerly numbered 180X.) Seminar, three courses. 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. P/NP or letter grading.

181A. Specialized Studies in Medieval Literature. (5) Formerly numbered 180.) Seminar, three or four hours. 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. P/NP or letter grading.

181B. Specialized Studies in Renaissance Literature. (5) Formerly numbered 181.) Seminar, three or four hours. 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. P/NP or letter grading.

181C. Specialized Studies in 17th-Century Literature. (5) Formerly numbered 182.) Seminar, three or four hours. 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. P/NP or letter grading.

181D. Specialized Studies in 18th-Century Literature. (5) Formerly numbered 183.) Seminar, three or four hours. 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. P/NP or letter grading.

181E. Specialized Studies in Romantic Literature. (5) Formerly numbered 184.) Seminar, three or four hours. 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. P/NP or letter grading.

181F Specialized Studies in Victorian Literature. (5) Formerly numbered 185.) Seminar, three or four hours. 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. P/NP or letter grading.

181G. Specialized Studies in 20th-Century British Literature. (5) Formerly numbered 186.) Seminar, three or four hours. 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. P/NP or letter grading.

182A. Specialized Studies in Colonial American Literature. (5) Formerly numbered 187.) Seminar, three or four hours. 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. P/NP or letter grading.

182B. Specialized Studies in 19th-Century American Literature. (5) Formerly numbered 188.) Seminar, three or four hours. 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. P/NP or letter grading.

182C. Specialized Studies in 20th-Century American Literature. (5) Formerly numbered 189.) Seminar, three or four hours. 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. P/NP or letter grading.
190H. Honors Research Colloquia in English. (1) Seminar; one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students under-taking supervised tutorial research for departmental honors in seminar setting with one or more faculty members to discuss their own work in progress and critical readings related to honors projects. Led by one supervising faculty member. P/NP grading.

191H. Honors Seminar: English. (5) Formerly numbered 199HA.) Seminar, three hours. Enforced requisite: course 140A or 140B. Open only to stu-dents who are eligible and apply for honors program in English. Introduction to research techniques and study of various approaches and applications of criti-cal methodology as it relates to interpretation and evaluation of texts. Development and presentation of proposals for honors projects. Consult undergraduate adviser. Letter grading.

192. Undergraduate Practicum in English. (4) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced under-graduate students. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course set-tings. P/NP or letter grading.

193. Colloquia and Speakers’ Series Undergraduate Seminars: English. (1) Seminar, one hour. Limit-ed to undergraduate students. Discussion of current critical literature and/or creative readings by writers, artists, and the scholarly community. Exploration in greater depth of literature and critical topics and creative work presented through sponsored forums, speakers’ series, and colloquia. P/NP grading.

195. Community or Corporate Internships in En-glish. (4) (Formerly numbered 199J.) Tutorial, to be arranged. Limited to juniors/seniors. Individual internship in supervised setting in community agency, edu-cation, museum, or arts venue, or business. Students meet on regular basis with instructor and provide periodic written reports of their experience. May require analytic essay, as determined by supervising faculty member. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in English. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual in-tensive study, with scheduled meetings to be ar-ranged between faculty member and student. As-signed reading and tangible evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.

198A-198B. Honors Research in English. (5-5) (Formerly numbered 199HB-199HC.) Tutorial, to be arranged. Requisite: course 191H. Limited to juniors/ seniors. Tutorial in which students write theses under direct supervision of faculty member. Individual contract required. In Progress (198A) and letter (198B) grading.

199. Directed Research or Senior Project in En-glish. (2 to 8) Tutorial, to be arranged. Limited to jun-iors/seniors. Supervised individual literary research and creative projects under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.

201B. Aesthetics and Criticism from the Enlight-enment to Decadence. (4) Lecture, three hours. Continuation of course 201A, proceeding from neoclassical and Enlightenment critical theory through Victorian and decadent aesthetic and literary criti-cism. Readings may include texts by Rousseau, Dry-den, Pope, Hume, Kant, Stendhal, the Schlegels, Col-eridge, Heine, Schelling, Arnold, Palmer, Wilde, and Nietzsche. S/U or letter grading.

201C. Developments and Issues in Modern Criti-cal Thought. (4) Lecture, three hours. Study of major figures and movements in contemporary critical theory. Readings vary from year to year but may in-clude such figures as Freud, Durkheim, Saussure, Heidegger, Shklovskii, Benjamin, Adorno, Levi-Strass, Lacan, Barthes, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, and Bhabha. S/U or letter grading.

202. Enumerative and Descriptive Bibliography. (4) Problems in bibliography, texts, and editions, with practical application in compiling bibliographies, edit-ing texts, and approaching literature through textual criticism.

203. Computers and Literary Research. (4) Prior knowledge in this area not required. Practice in writ-ing and using computer programs for analysis of liter-ary style, content, and authorship.

204. History of Rhetoric. (4) Reading of basic texts in history of rhetoric and selection from standard contemporary sources on the medieval and medi-eval-to-modern period in alternate years.

M205A. Study of Oral Tradition: History and Meth-ods. (4) (Formerly numbered 205A.) Same as Scan-dinavian M271.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, ana-lyze, promote, and/or appropriate oral traditions, from Homer and ancient Greece to origins of vernacular lit-eratures, European romantic (re)discovery of oral tra-ditions, and modern-day popular and folk traditions, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

M205B. Collecting Oral Tradition. (4) (Formerly numbered 205B.) Same as Scandinavian M272.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and doc-umenting oral tradition as text, performance, and socio-cultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

M205C. Studies in Oral Traditional Genres. (4) (Formerly numbered 205C.) Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, a particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or of closely related oral traditional genres. S/U or letter grading.

210. History of the English Language. (4) Detailed study of history, characteristics, and changing forms of the language from its origin until about 1900.

211. Old English. (4) Study of Old English grammar, lexicography, phonology, and pronunciation to enable stu-dents to read the literature silently and aloud. Read-ing of as much of the more interesting Old English prose and poetry as can be read in a term.

212. Middle English. (4) Requisite: course 211. De-tailed study of linguistic aspects of Middle English and of representative examples of the better prose and poetry.


218. Celtic Linguistics. (4) Survey of salient fea-tures of Celtic linguistic stock in its Gaelic and British branches, with reference to position of Celtic within Indo-European languages.

230. Workshop: Creative Writing. (2 to 4) Prepara-tion: submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but not more than four times. Specific courses re-quired for first qualifying examination or any of the five courses required for second qualifying examina-tion.

240. Studies in History of the English Language. (4) Individual seminars dealing with any single historical period from Old English period to the present or development of a particular linguistic characteristic (phonology, syntax, semantics, dialectology) through various periods. May be repeated for credit.

241. Studies in Structure of the English Lan-guage. (4) Topics in various aspects of structure of modern English, especially syntax and semantics. May be repeated for credit.

242. Language and Literature. (4) Application of lin-guistics to literary analysis. Individual seminars dealing with a historical period (medieval and Renais-sance, neoclassical, or 19th century and modern), specific authors, or contributions of specific groups of linguists to literary analysis. May be repeated for credit.

244. Old and Medieval English Literature. (4) Studies in poetry and prose of Old and medieval En-glish literature; limits of investigation set by individual instructor. May be repeated for credit.

247. Chaucer. (4) May be repeated for credit.


252. Victorian Literature. (4) Studies in poetry and prose of 19th-century English literature up to the Restoration; limits of investigation set by indi-vidual instructor. May be repeated for credit.

254. American Literature to 1900. (4) Studies in Colonial and 19th-century American literature; limits of investigation set by individual instructor. May be re-petited for credit.

255. Contemporary American Literature. (4) Stud-ies in contemporary American poetry and prose; limit of investigation set by individual instructor. May be repeated for credit.

258. Studies in the Drama. (4) Studies in drama as a genre for its own right, the present limits of in-vestigation set by individual instructor. May be repeat-ed for credit.

259. Shakespeare. (4) May be repeated for credit.

260. Restoration and 18th-Century Literature. (4) Studies in English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit.

261. Romantic Writers. (4) May be repeated for credit.

262. Victorian Literature. (4) Studies in English po-etry and prose of the Victorian period; limits of investi-gation set by individual instructor. May be repeated for credit.

263. Contemporary British Literature. (4) May be repeated for credit.

264. American Literature to 1900. (4) Studies in Colonial and 19th-century American literature; limits of investigation set by individual instructor. May be re-petited for credit.

265. American Literature to 1900. (4) Studies in American literature; limits of investigation set by individual instructor. May be repeated for credit.

266. Studies in the Drama. (4) Studies in drama as a genre for its own right, the present limits of in-vestigation set by individual instructor. May be repeat-ed for credit.

267. Studies in Poetry. (4) Studies in various themes and forms of poetry from Old English to the present, limits of investigation set by individual in-structor. May be repeated for credit.
258. Studies in the Novel. (4) Studies in evolution of the genre from its beginning to the present; limits of investigation set by individual instructor. May be repeated for credit.

259. Studies in Criticism. (4) May be repeated for credit.

260. Studies in Literature and Its Relationship to the Arts and Sciences. (4) Studies in interrelationships of literature, arts, and sciences; limits of investigation set by individual instructor. May be repeated for credit.

M260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260.) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

261. Studies in Chicana/Chicano Literature. (4) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural context that emerged in Chicana/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

M262. Studies in Afro-American Literature. (4) (Same as Afro-American Studies M260.) Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit.

263. Celtic Literary. (4) Lecture, three hours. Preparation for knowledge of one of the ancient or modern Celtic languages. 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.

264. Studies in Rhetoric. (4) Discussion, three hours. Special topics in classical and modern rhetoric, including substantial practice in rhetorical analysis of literary texts. May be repeated for credit.

265. Postcolonial Literatures. (4) Seminar, three hours. Study of aesthetic, historical, and social backgrounds to literatures of former British colonies that became independent after 1947. General issues related to way imperialism, colonialism, and postcolonialism have helped to shape and have been shaped in English. May be repeated for credit. S/U or letter grading.

M256. Cultural World Views of Native America. (4) (Same as American Indian Studies M256.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms — dance, art, song, religious and medicinal ritual — in selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodologies that approaches taken from literary analysis, structural anthropology, folklore, linguistics, and ethnomusicology. May be repeated for credit with instructor and/or topic change.

M270. Literary Theory. (5) (Same as Asian M251, Comparative Literature M294, French M270, German M270, Italian M270, Scandinavian M270, and Spanish M294.) Seminar, three hours. Advanced intensive 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.

272. Current Issues in Teaching English. (4) Focus on one or two topics of special current interest. May be repeated for credit.

M298. Interdisciplinary Studies in the 17th and 18th Centuries. (4) (Same as History M298.) Topics vary according to participating faculty. May be repeated for credit.

M299. Interdisciplinary American Studies. (6) (Same as History M299.) Discussion, four hours. Readings, discussion, and papers on a common theme, team-taught by faculty from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.

495E. Teaching with Technology. (2 or 4) Seminar, two hours. Enables graduate student instructors to approach challenges of teaching with technology on two fronts: by familiarizing them with range of possible applications and by carrying out a research project on a technology topic of their choice. S/U grading.

496. Publishing the Academic Literary Article. (4) Discussion, four hours. Structured as a writing workshop and divided into two parts: (1) determination of what a publishable article looks like while students revise work independently and (2) circulation of student papers to class in advance with the writing discussed in seminar room by whole class. 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. Limited to junior/seniors. Readings in 20th-century Yiddish poetry. P/NP or letter grading.


596. Directed Individual Study or Research in Yiddish. (4) Tutorial. To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated for credit. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs the study (see department for I.D. number). S/U grading.

Graduate Courses

596. Directed Individual Study or Research in Yiddish. (4) Tutorial. To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated for credit. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs the study (see department for I.D. number). S/U grading.

Yiddish 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.


102A-102B. Accelerated Elementary Yiddish (6-6). Lecture, five hours; laboratory, one hour. Covers material in courses 101A, 101B, 101C in two terms rather than three. P/NP or letter grading.


121C. Special Topics in Yiddish Literature in English Translation. (4) Lecture, three hours. Varying topics on importance and relevance to Yiddish literary study. Reading and analysis of a wide range of 19th- and 20th-century literature. P/NP or letter grading.


131C. Special Topics in Yiddish Literary Studies. (4) Lecture, three hours. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of a wide range of 19th- and 20th-century literature. P/NP or letter grading.

ENGLISH COMPOSITION (WRITING PROGRAMS)

College of Letters and Science

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300 / English Composition
Scope and Objectives

Students need writing proficiency at every stage of their university careers. Although UCLA does not have a composition major, this program offers a series of courses introducing the varieties of university discourse and providing instruction in basic to high-level skills. Besides courses that satisfy the University’s Entry-Level Writing and Writing I and II (English Composition) requirements, the program offers writing courses linked with courses in other departments, intermediate and advanced courses in exposition, and language and composition courses for teachers. Special programs include the Transfer Intensive Program (TIP).

Undergraduate Study

Entry-Level Writing

Every student who does not satisfy the Entry-Level Writing requirement by presenting transfer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition A or 2 (determined by performance on the Analytical Writing Placement Examination) or 21 (determined by performance on both the Analytical Writing Placement Examination and the English as a Second Language Placement Examination). For more information regarding Entry-Level Writing, see Undergraduate Degree Requirements in the Undergraduate Study section of this catalog.

English Composition

Lower Division Courses

A. Introduction to University Discourse. (No credit) Lecture, five hours. Enforced requisite: appropriate score on Analytical Writing Placement Examination. Displaces 4 units on student's Study List but yields no credit toward a degree. First course in reading university-level texts and framing written responses that employ a range of rhetorical strategies from paraphrase to analysis. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Completion of course with a grade of C or better or demonstration of minimum competence on Analytical Writing Placement Examination is requisite to course 2.

2. Approaches to University Writing. (5) Lecture, four hours. Enforced requisite: course A with a 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 a grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

21. 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. Completion of course with a 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 requisite: satisfaction of Entry-Level Writing requirement, course 2 or English as a Second Language 35 (C or better). Review of terminology of academic writing, 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 a grade of C or better satisfies Writing I requirement. Letter grading.

3H. English Composition, Rhetoric, and Language (Honors). (5) Lecture, three hours. Enforced requisite: 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 a grade of C or better satisfies Writing I requirement. Letter grading.

30W. Intermediate Academic Writing: Various Topics. (5) Lecture, four hours; discussion, one hour. Enforced requisite; course 3 or 3H. Theme-based interdisciplinary writing course. Assignments involve students in critical reading, application, and integration of sources. Minimum of 20 pages of revised text required. Satisfies Writing II requirement. Letter grading.

Upper Division Courses

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3 or 3H. Designed for sophomores/juniors/seniors. Course in academic writing suitable for both lower and upper division students that helps them develop academic papers with a range of complexity and length. Focus on conventions of academic prose and genres across the disciplines. Writing 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. Requisites: satisfaction of Entry-Level Writing requirement, course 3 or 3H. Students must be concurrently enrolled in a course offered in conjunction with course 110 (consult Schedule of Classes for courses so designated). Writing assignments use materials from adjacent course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Survey of topics in English linguistics of special interest to elementary school teachers. Subjects include approaches to English grammar; language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature.


123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing I requirement. Designed to help students become information literate, so they know how to identify, locate, critically evaluate, and use print and electronic information effectively and ethically. Closely interwoven with Writing Programs courses that have information/research-related assignments. P/NP or letter grading.

129A-129D. Academic Writing in the 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 discursive forms, stylistic patterns, and research practices in the given discipline. Each course may be taken independently for credit. P/NP or letter grading. 129A. Literature; 129B. Social Sciences. Lecture, three hours; discussion, one hour; 129C. Physical and Life Sciences; 129D. Fine Arts.


131A-131D. Specialized Writing. (4 each) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Advanced writing course designed to help students develop style, form, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading. 131A. Law and Politics; 131B. Business and Social Policy; 131C. Medicine and Public Health; 131D. Media and Communications.

132A-132D. Topics in Rhetoric and Writing. (4 each) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for a letter grade. 132A. Gender and Writing; 132B. Autobiographical Writing; 132C. Cultural Studies; 132D. Variable Topics.

136A-136B-136C. Practical Writing and Editing. (4-4-4) Lecture, three hours. Preparation: one course from 131 series. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Sequence in practical writing and editing ability specifically designed to prepare students for careers. Analysis of prose and literary styles necessary to variety of writing in professions, nonacademic fields combined whenever possible with practical experience in variety of writing internships and training in wide range of editorial skills. In Progress (136A) and P/NP or letter (136B, 136C) grading.

185. Community or Corporate Internships in English Composition. (4) Formerly numbered 991.) Tutorial, to be arranged. Requisite: courses 3 or 3H, satisfaction of Writing II requirement. Limited to junior/senior interns in an approved setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty advisor and department head. P/NP or letter grading.

199. Independent Studies in Writing. (2 to 4) Tutorial, to be arranged. Requisites: satisfaction of Entry-Level Writing requirement, course 3 or 3H. Independent studies course supervised by faculty member. Field of study and/or individual focus should be supervised by Center for Community Learning or organization offering internship. 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.

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.

495B. Supervised Teaching Preparation. (2) Seminar, two 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, to be arranged. Requisites: courses 495A, 495B. Required of all teaching assistants in their initial quarter of teaching English Composition 3 or English 4W. Mentoring and group teaching assistant/mentor conferences. S/U grading.

Environmental Health Sciences

School of Public Health

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Adjunct Professor
Steve D. Colome, S.D.

Adjunct Assistant Professors
Pablo Ciceri-Fernandez, D.Env.
Nola Kennedy, Ph.D.
Wen Chen Victor Liu, Ph.D., in Residence

Field Program Supervisor
Paul E. Rosenfeld, 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 highly trained scientists and professionals 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 which offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental chemistry, environmental management, environmental toxicology, industrial hygiene, and water quality. Graduates of the department pursue careers in the private or public sector as researchers, educators, managers, policymakers, and/or practitioners.

The department offers M.S. and Ph.D. degrees in Environmental Health Sciences and, through the School of Public Health, the M.P.H. and Dr.P.H. degrees with a specialization in environmental health sciences (see Public Health Schoolwide Programs). In addition, a unique doctoral degree (Doctor of Environmental Science and Engineering — D.Env.) is offered by the interdepartmental Environmental Science and Engineering Program which is administered through the department.

Graduate Course

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.divnet.ucla.edu. 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 Environmental Health Sciences offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Environmental Health Sciences.

Environmental Health Sciences

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.

M166. Environmental Microbiology. (4) (Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Civil Engineering 153. Microbial cell and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses


200C. Environmental Health Sciences for Nursing Students. (3) Lecture, three hours. Preparation: one year of undergraduate biology, calculus, chemistry, physics, and physiology. Limited to nursing students. Introduction to physical agents, including noise, thermal environment, ionizing radiation, and nonionizing radiation. Exploration of exposure assessment of air pollution in urban areas, occupational exposure assessment for epidemiological inferences, exposure characteristics, air pollution and excess mortality, assessment of exposure to mixture chemicals, multimedia and ecological exposure assessment. Letter grading.


203. Seminar: Ecotoxicology. (2) Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

204. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary from term to term and include aspects of population activity, microenvironments, types of monitoring (outdoor, indoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U grading.


211. Science and Politics of Environmental Regulation. (4) Lecture, one hour; laboratory, two hours; discussion, one hour. Introduction to core methods of environmental economics, policy analysis, basic econometrics, and survey design. Application of concepts to environmental policy and regulatory issues. S/U grading.


234. Critical Readings in Environmental Policy for Scientists and Engineers. (4) Lecture, one hour; discussion, three hours. Requisite: course 230. Focus on critical readings in environmental policy and regulation. S/U or letter grading.

235. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Preparation: bachelor's degree in science, engineering, public health, social sciences, or environmental sciences. Introduction to core methods of environmental economics, policy analysis, basic econometrics, and survey design. Application of case-study approach with considerable memo writing and review. Emphasis on critical thinking about normative and positive aspects of environmental policies. Requisite: one year of calculus. S/U or letter grading.


245. Laboratory in Toxicological Methods. (2) (Same as Molecular Toxicology M245 and Pharmacology M234C.) Lecture, one hour; laboratory, four to five hours. Preparation: one year of biology and/or chemistry. Students are involved in the design and execution of research projects in toxicology. S/U grading.


252A. Identification and Measurement of Gases and Vapors. (4) Lecture, three hours; discussion, one hour. Preparation: one year of chemistry, physics, and calculus. Focus on the identification and measurement of gases and vapors in the workplace. S/U or letter grading.

252B. Industrial Hygiene Measurements Laboratory. (3) Laboratory, three hours. Focus on the measurement and analysis of gases and vapors in the workplace. S/U or letter grading.

252C. Environmental Health Sciences / 303

252G. Environmental and Industrial Hygiene Assessment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; discussion, four hours. Requisites: courses 200A, 200B, 252D, 252E, 252F. Focus on the assessment and management of environmental hazards. S/U or letter grading.


253B. Physical Agents Laboratory. (2) Laboratory, two hours. Preparation: course 253A. Focus on the hands-on exposure to physical agents in the workplace. S/U or letter grading.

255. Control of Airborne Contaminants. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Focus on the control of airborne contaminants in the workplace. S/U or letter grading.

256. Biological and Health Surveillance Monitoring in Occupational/Environmental Health. (4) Lecture, three hours; discussion, one hour; assignment, three hours. Focus on the biological and health surveillance monitoring in the workplace. S/U or letter grading.


258. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour; field trip, one day. Focus on the identification and analysis of hazardous wastes. S/U or letter grading.

259A. Occupational Safety and Ergonomics. (4) (Seminar) Laboratory, four hours. Focus on the study of safety and ergonomics in the workplace. S/U or letter grading.

259B. Occupational Ergonomics Laboratory. (4) Laboratory, four hours. Requisite or corequisite: course 259A. Focus on the laboratory study of safety and ergonomics in the workplace. S/U or letter grading.

296E. Occupational Safety and Health Program Management. (4) Lecture, four hours. Designed for graduate students. Introduction to application of management principles and techniques for management of safety and health and loss control programs. Letter grading.

296F. Toxicology and Exposure Assessment of Toxic Chemicals. (2) Lecture, two hours; laboratory, four hours. Requisites: courses 200A, 200B. Study of mechanisms moving organic chemicals between phases, 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. Letter grading.


296H. Occupational Safety and Ergonomics. (2) Lecture, one hour; laboratory, four hours. Requisites: courses 200A, 200B. Basics of transport of pollutants in urban runoff, analysis of urban activities as sources of pollutants, assessment of quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and vibration. Letter grading.

296M. Experimental and Modeling Studies of Atmospheric Pollution. (2) Lecture, two hours; laboratory, four hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

296N. Genetic Toxicology. (2) Lecture, one hour; laboratory, four hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 200A, 200B, Chemistry 20A, 30AL. Introduction to laboratory and field applications to assessment of quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and radiation. Letter grading.

410A. Instrumental Methods in Environmental Sciences. (4) Lecture, four hours; discussion, two hours; other, two hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Environmental Health Sciences. (4) Lecture, one hour; discussion, one hour; laboratory, four hours; other, two hours. Preparation: one year each of physics, chemistry, and mathematics. Requisites: courses 200A, 200B. Laboratory techniques and instrumentation used in preparation and analysis of biological, environmental, and occupational samples. Letter grading.

M411. Environmental Health Sciences Seminar. (2) Same as Environmental Science M411.) Seminar, two hours. Preparation: consent of UCLA graduate advisor. May be repeated for credit. S/U grading.

412. Effective Technical Writing. (2) Same as Environmental Science and Engineering M412.) Lecture, one hour. Essentials of grammar, punctuation, syntax, organization, and format needed to produce written journal articles, research reports, memos, papers, randa, letters, and résumés. Emphasis on accuracy, clarity, conciseness, and avoidance of common errors in advanced technical writing, using critique, exercises, and examples. S/U grading.

454. Health Hazards of Industrial Processes. (4) Formerly numbered 254.) Lecture, two hours; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B. Introduction to water quality, with emphasis on problems raised by poorly equipped urban watersheds. 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, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with LISC. 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. S/U or letter grading.

597. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 10) Tutorial, four hours. Only 4 units may be applied toward 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 10) Tutorial, four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

ENVIRONMENTAL SCIENCE AND ENGINEERING
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Arthur M. Winer, Ph.D. (Environmental Health Sciences)
Scope and Objectives

The UCLA Environmental Science and Engineering (ESE) Program was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional Ph.D. programs. As the program enters its third decade, Dr. Libby's vision has in fact been realized with the evolution of the program from an experimental approach into a key component of the overall effort to train environmental professionals at UCLA.

To date the program has awarded the Doctor of Environmental Science and Engineering (D.Env.) degree to over 200 students, and UCLA remains unique in the country in awarding such a degree. Many graduates have gone on to occupy critical positions in environmental research, remediation, and policy throughout the major environmental agencies in California and the nation. Other graduates have risen to senior positions in private sector companies conducting environmental research and remediation. Still other graduates are applying scientific solutions to environmental problems at national laboratories such as Oak Ridge and Lawrence Livermore Laboratories and at research institutes such as the RAND Corporation.

Although many participating interdepartmental faculty members are from the College of Letters and Science and the Henry Samueli School of Engineering and Applied Science, the program is administered through the School of Public Health where a core faculty is based in the Department of Environmental Health Sciences.

No undergraduate major or master's degree is offered. The program is designed to train multidisciplinary professionals 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. Because the D.Env. degree is not a specialized research degree in the manner of a Ph.D., the usual extended research training period in residence at UCLA associated with a Ph.D. is replaced by an 18- to 36-month internship in an appropriate government agency, national laboratory, or private industry, during which in-depth study of an environmental problem leads to a dissertation.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Environmental Science and Engineering Program offers the Doctor of Environmental Science and Engineering (D.Env.) degree.

Environmental Science and Engineering

Graduate Courses

M255. Introduction to Statistical Analysis of Environmental Data. (4) (Same as Statistics CM255.) Lecture, three hours. Designed for graduate students. Routine intermediate applied statistics course, with emphasis on applications to environmental data and statistical computing with the language R. Statistical analysis and scientific report from real data required. S/U or letter grading.

M266. Nonpoint Pollutant Sources and Transport Phenomena. (2) (Same as Environmental Health Sciences M266.) Seminar, two hours. Critical analysis course with focus on advanced topics in origins, transport, and fate of nonpoint source pollutants, especially in runoff from urban watersheds. Basics of transport of humic substances, methods to identify sources of pollutants in urban runoff, analysis of urban activities as potential sources, and methods to estimate loadings from particular urban watersheds. S/U grading.

400A. Environmental Science and Engineering Problems Course. (8) Discussion, eight hours. Primarily designed for environmental science and engineering doctoral students. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. In Progress grading (credit to be given only on completion of courses 400B and 400C). S/U grading.

400B. Environmental Science and Engineering Problems Course. (8) Discussion, eight hours. Requirements: course 400A. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. In Progress grading (credit to be given only on completion of course 400C). S/U grading.

400C. Environmental Science and Engineering Problems Course. (8) Discussion, eight hours. REQUIREMENTS: successful completion of internship approved by doctoral committee and program director. Requirements: course 400C. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. S/U or letter grading.

410A-410B-410C. Environmental Science and Engineering Workshops. (2-2-2) Discussion, two hours. Primarily designed for environmental science and engineering doctoral students who are conducting problems courses. Development of multidisciplinary skills essential to solution of environmental problems studied within courses 400A through 400D. Development of presentation skills. S/U grading.

M411. Environmental Health Sciences Seminar. (2) (Same as Environmental Health Sciences M411.) Seminar, two hours. Required of graduate environmental health sciences students for one term each year. Current topics in environmental health sciences and environmental science and engineering. May be repeated for credit. S/U grading.

M412. Effective Technical Writing. (2) (Same as Environmental Health Sciences M412.) Lecture, one hour. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memoranda, letters, and résumés. Emphasis on accuracy, clarity, conciseness, and avoidance of common errors in advanced technical writing, using critique, exercises, and examples. 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.


Epidemiology

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Scott P. Layne, M.D.
Beate R. Ritz, M.D., Ph.D.

Assistant Professors

Gloria E. Mao, Ph.D., in Residence
Anne W. Rimon, Ph.D., in Residence

Lecturer

Anne H. Coulsin, Senior Lecturer Emerita

Adjunct Professors

O. George W. Berlin, Ph.D.
James R. Greenwood, Ph.D., M.P.H.
Scott Haldeman, M.D., Ph.D., F.R.C.P.
John M. Peters, M.D., M.P.H., Sc.D.
Marc A. Strassburg, Dr.P.H.
Nathan D. Wong, Ph.D.

Adjunct Associate Professors

Deborah L. Ackerman, Ph.D.
Sydney Maureen Harvey, Ph.D.
Michael A. Kelsh, Ph.D., M.P.H.
Peter R. Kerndt, M.D., M.P.H.
David McArthur, Ph.D.
Paul A. Simon, M.D., M.P.H.
Huiying Yang, M.D., Ph.D., in Residence
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 in 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. 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, available at the Graduate Division website, https://www.gdnl.ucla.edu. 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 200. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. Letter grading.

Graduate Courses
200. Epidemiology I. (4) Lecture, two hours; laboratory, four hours. Preparation: one full biological sciences course. Requisite: Biostatistics 100A (may be taken concurrently). Not open for credit to students with credit for course 100. Introduction to epidemiology, including factors governing health and disease in populations. Letter grading.

201A-201B. Epidemiologic Methods I, II. (6-6) Lecture, four hours; discussion, two hours; outside study, 12 hours. Preparation: at least two upper division biology or social sciences courses. Recommended preparation: course 100 or 200. Requisites: Biostatistics 100A, 100B. Comprehensive coverage of concepts, principles, and methods in epidemiology, with emphasis on study design, statistical analysis, and causal inference. Theoretical and quantitative emphasis, focusing on investigation of disease etiology and other causal relationships in public health. Letter grading.

202A. Epidemiology: Theory and Methodology. (4) Lecture, four hours. Requisite: course 201B. Advanced principles and methods of epidemiologic analysis. Topics include relating prevalence and incidence, analysis of clustering and seasonality; measures of effect, sources of bias, regression to the mean, estimation and hypothesis testing in epidemiology; models for risk and rates; cohort analysis. S/U or 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 consent of instructor. S/U grading.


211. Statistical Methods for Epidemiology. (4) (Same as Biostatistics M211 and Statistics M250.) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Recommended: course M204 or M211. Principles of modeling, including definitions of models, a priori model specification, translation of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.

212. Statistical Modeling in Epidemiology. (4) (Same as Biostatistics M209.) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Recommended: course M204 or M211. Principles of modeling, including definitions of models, a priori model specification, translation of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling. S/U or letter grading.

218. Questionnaire Design and Administration. (4) (Same as Community Health Sciences M218.) Lecture, four hours. Requisites: courses 201A and 201B or Community Health Sciences 211A and 211B. Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.


221. Prevalent and Emerging Infectious Diseases in the World. (4) Lecture, four hours. Requisites: course 100 or Biostatistics 100A, 100B. Design for graduate students and medical doctors seeking broad knowledge and detail on prevalent and emerging infectious diseases, including influenza, acute respiratory infections, cholera/diarrheal disease, tuberculosis, hepatitis B, malaria, measles, neonatal tetanus, HIV/AIDS, pertussis (whooping cough). S/U or letter grading.

222. Arthropods as Vectors of Human Diseases. (4) Lecture, four hours. Requisites: courses 100 or 200 and 220. Comprehensive overview of morphology, systematics, natural history, host/vector/pathogen relationships, and spectrum of diseases carried by arthropods for graduate students, public health professionals, and medical doctors seeking information on global prevalence of arthropod-borne diseases. 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 morphology, biology, means of diagnosis, and diseases they cause. From epidemiological perspective, special emphasis on way in which parasites maintain themselves in nature and manner in which organisms are transmitted to people. 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. Role of Public Health Laboratory in Disease Control. (2) Lecture, two hours. Requisite: course 100 or 200. Role of public health laboratory is to support testing needs of the programs. To successfully fulfill this role, laboratory must provide information based on most sensitive and specific technologies available. Coverage of common infectious disease agents of public health importance and definition of impact of molecular biology on disease detection and epidemiology in modern public health laboratory. S/U or letter grading.
226. Public Health Responses to Bioterrorism. (4)
Lecture, four hours. Requisite: course 220 or 221. Mitigation of terrorism 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.

Lecture, four hours. Requisites: course 100 or 200, Biostatistics 100A or 110A. Presentation of epidemiologic, biologic, psychological, and clinical characteristics of AIDS and HIV infection. Discussion of policy implications and intervention strategies. S/U or letter grading.

228. Biology of HIV. (4) (Formerly numbered M228.)
Lecture, three hours. Preparation: two biology courses. Requisites: course 100, Biostatistics 100A. Overview of virologic and immunologic aspects of HIV disease for epidemiology or other health disciplines. Brief discussion of clinical manifestations and biological safety in the laboratory. Letter grading.

229. Epidemiology of Foodborne Illnesses. (2)
Lecture, two hours. Requisites: course 100 or 200, Biostatistics 100A. Food poisoning is a significant cause of morbidity and mortality in both developing and developed countries. S/U or letter grading.

230. Principles of Control of Infectious Diseases. (4)
Lecture, four hours. Requisite: course 100 or 200. Sexually transmitted diseases; medical-biological aspects, epidemiology and control in developed and developing countries. S/U or letter grading.

231. Epidemiology of Sexually Transmitted Diseases. (4)
Lecture, two hours. Requisite: courses 100 or 200. Sexually transmitted diseases; medical-biological aspects, epidemiology and control in developed and developing countries. S/U or letter grading.

232. Methods in Reproductive Epidemiology. (2)
Lecture, two hours. Requisite: course 100 or 200. Introduction to range of current research topics on aging, with focus on conceptual and methodological issues related to each topic area. S/U or letter grading.

244. Research Methods in Cancer Epidemiology. (2)
Lecture, two hours. Requisites: courses 100 and/or 200, Biostatistics 100A. Biologic, quantitative, philosophical, and administrative considerations in epidemiologic cancer research. Hypothesis specification and choice of study design. Uses of descriptive epidemiology, cohort studies, case control studies. Clustering, screening, and cancer control. Means of identifying subjects and controls. Design of instruments. Sources of bias and confounding. S/U or letter grading.

245. Epidemiological and Clinical Issues in Research on Aging. (2)
Lecture, two hours. Overview of concepts and current epidemiological and clinical issues in research on aging. Presentations by current epidemiological and clinical researchers at UCLA and coverage of range of current research topics on aging.

246. Epidemiology of Aging. (2)

247. Epidemiology of Injuries in the Elderly. (2)
Lecture, two hours. Requisite: course 100. Description of frequency of, risk factors for, and possibilities of preventing injuries in the elderly populations. Comparison of injury outcomes (morbidity and mortality) in younger vs. older populations. Emphasis on methodologic issues of studying elderly people. S/U or letter grading.

248. Psychiatric Epidemiology. (2)
Lecture, two hours. Requisite: course 100 or 200. Introduction to basic concepts and research methods in psychiatric epidemiology. Topics include case definition, study design, instrumentation, and epidemiology of selected psychiatric disorders. Letter grading.

249. Genetic Epidemiology I. (2)
Lecture, two hours. Preparation: at least one course in epidemiology, biostatistics, and genetics. Basic concepts in emerging field of genetic epidemiology, with principal focus on genetic study of complex diseases, determining genetic contributions to disease, identifying genes, and characterizing their main effects and interactions with environmental factors. Letter grading.

250. Terrorism and Mass Destruction. (2)
Lecture, two hours. In wake of terrorist attacks in several American cities, public health students and practicing professionals need understanding and training to respond to disasters and acts of terrorism and mass destruction. Impacts of terrorism and disasters encompass health, psychological, social, political, and economic dimensions. Examination of terrorist attacks and disaster response and recovery. Letter grading.

251. Epidemiology of Nonintentional Injuries. (4)
Lecture, three hours; discussion, two hours. Requisites: course 100 or 200, Biostatistics 100A. Pertinent epidemiology methods for study of nonintentional trauma, including that from motor vehicle crashes, occupational exposures, falls, and other major external causes, which focus on research approaches, data sources, analytical techniques. Substantive findings on related subproblem areas presented for critical review. Letter grading.

252. Epidemiologic Methods in Violent Injury. (4)
Lecture, three hours; discussion, one hour. Requisite: course 100 or 200. Description and critical evaluation of epidemiologic methods in approaches to understanding incidence, location, and causes of violence and violence-related injury. Letter grading.

253. Acute Traumatic and Chronic Repetitive Injuries from Work-Related Exposures. (2)
Lecture, two hours; discussion, one hour. Requisites: course 100, Biostatistics 100A. Lectures and discussions on specific epidemiologic features and methodology for work-related acute traumatic and chronic repetitive (musculoskeletal) injuries. Emphasis on injury research methods for all external causes of injury, utilizing epidemiology for high-risk group and risk-factor identification and injury prevention. S/U or letter grading.

254. Research Methods in Cancer Epidemiology. (2)
Lecture, two hours. Requisites: courses 100 and/or 200, Biostatistics 100A. Biologic, quantitative, philosophical, and administrative considerations in epidemiologic cancer research. Hypothesis specification and choice of study design. Uses of descriptive epidemiology, cohort studies, case control studies. Clustering, screening, and cancer control. Means of identifying subjects and controls. Design of instruments. Sources of bias and confounding. S/U or letter grading.

255. Keeping Children Safe: Causes and Prevention of Pediatric Injuries. (2) (Same as Community Health Sciences M255.)
Lecture, two hours. Injuries have been leading killer of children in the U.S. for decades. 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. Issues in Nutritional Epidemiology. (2)
Lecture, three hours. Preparation: at least one introductory epidemiology course. Introduction to study of foods and nutrients in causation or prevention of diseases. Discussion of methods for collecting data on diet, study components and designs, and analysis. Comprehensive study of range of current research topics on aging, with focus on conceptual and methodological issues related to each topic area. S/U or letter grading.

258. Environmental Epidemiology. (2 or 4)
Seminar, two hours. Requisite: course 100 or 200. Methodological considerations, approaches, and limitations in epidemiological studies of occupational and environmental hazards. Lectures on GIA, risk assessment and meta-analysis, and wide range of case studies, including air pollution, environmental tobacco smoke, cell phones, and radiation. Focus on techniques to critically evaluate and interpret current literature. S/U or letter grading.

259. Disaster Epidemiology. (2)
Lecture, two hours. Requisites: course 100 and/or Environmental Health Sciences 295. Introduction to epidemiologic methodology to study disasters and their health outcomes, including surveillance, loss estimation, risk factor assessment, intervention, and evaluation. Letter grading.

260. Environmental Epidemiology. (2 or 4)
Lecture, two hours; discussion, two hours. Requisite: course 100 or 200. Epidemiologic methods applied to evaluation of human health effects of environ- mental hazards. Lectures on GIA, risk assessment and meta-analysis, and wide range of case studies, including air pollution, environmental tobacco smoke, cell phones, and radiation. Focus on techniques to critically evaluate and interpret current literature. S/U or letter grading.

261. Occupational Epidemiology. (4)
Lecture, two hours; discussion, two hours. Requisite: course 100 or 200. Methodological considerations, approaches, and limitations in epidemiological studies of occupational and environmental hazards. S/U or letter grading.

262. Seminar: Environmental and Occupational Cancer Epidemiology. (2)
Seminar, two hours. Requisites: course 100 or 200. Examination of examples of recent epidemiologic studies, with focus on environmental and occupational exposures, especially in areas where controversies have arisen such as for electromagnetic fields and occupational exposures to bladder cancer and trihalomethanes levels of drinking water. S/U or letter grading.
402. Advanced Data Analysis in Occupational and Environmental Epidemiology. (4) Lecture, two hours; laboratory, two hours. Preparation: one data management course. Review of contemorary roles of pharmacoeconomics in development and public health, with historical background of its evolution and projections of future prospects. S/U or letter grading.

M403. Computer Management and Analysis of Health Data Using SAS. (4) Formerly numbered M403B. (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Requisites: Biostatistics 100A, 100B (100B may be taken concurrently). Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used through to illustrate principles of data management and analysis for addressing biomedicine and health-related hypotheses. Letter grading.

M406. Preparing for Smallpox or Other Bioterrorist Events. (2) Formerly numbered 410B. Lecture, two hours. Data management for various epidemiologic study designs, confidentiality concerns; data management systems; introduction to mainframe computer. S/U or letter grading.

411. Research Resources in Epidemiology. (2) Lecture, one hour; discussion, one hour. Introduction and practical experience in use of varied bibliographic aids and sources of information, building of reference files, and presentation of research findings for publication. Letter grading.

412. Public Health Surveillance. (2) Lecture, two hours. Requisites: course 100 or 200, Biostatistics 100A. Overview of public health surveillance methodology, including (1) design, implementation, and evaluation of surveillance systems, (2) data analysis and presentation of surveillance data, and (3) application of surveillance methods to specific health-related outcomes. Letter grading.

413. Methods of Scientific Communication. (2) Lecture, four hours. Requisite: course 100 or 200. Principles of scientific writing and communication. Approaches to developing effective written, oral, and visual presentations of epidemiologic research findings. Over issues arising in the conduct of research, including informed consent process. S/U or letter grading.

414. Practical Epidemiologic Investigations. (2 or 4) Lecture, one or two hours; laboratory, one or two hours. Requisite: course 100 or 200. Practical approaches to epidemiologic investigations presented through problem sets based on actual outbreaks. Data collection, analysis, and written presentation of findings. Letter grading.

415. Epidemiology for Developing Countries. (4) Lecture, four hours. Requisites: courses 100 and/or 200, Biostatistics 100A. Practical use of epidemiological, microcomputer, 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 100 and 200, 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.

419. Applications in Musculoskeletal Epidemiology. (2) Lecture, two hours; laboratory, two hours. Requisites: course 100 or 200 (may be taken concurrently). Biostatistics 100A. Introduction to principles and practical issues of epidemiologic data analysis for addressing musculoskeletal-related hypotheses. Use of data sets from relevant components of National Health Interview Survey and from musculoskeletal-related epidemiologic studies. Use of SAS programming language, with applications in both UNIX and Windows. Letter grading.

495. Teacher Preparation in Epidemiology. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit toward minimum graduate course requirement. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

506. 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.

507. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirement. May be repeated for credit. S/U grading.

508. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. May not 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.

559. Doctoral Dissertation Research. (2 to 8) Tutorial, to be arranged. May not be applied toward any degree course requirement. May be repeated for credit. S/U grading.

ETHNOIMUSICOLGY

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Daniel M. Neuman, Ph.D.
A. Jihad Racy, Ph.D.
Hiromi Lorraine Sakata, Ph.D.

Field Studies in Epidemiology. (2 or 4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward master’s degree requirement; 4 units may be applied toward 44-unit minimum total required for M.P.H. degree. Letter grading.
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 ensemble courses in jazz and 10 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 required or required.

The undergraduate major in Ethnomusicology is offered with two concentrations—one in the field of ethnomusicology with emphasis on world and American music and one in jazz studies. Admission requires an audition/interview. The major provides students with a wide-ranging liberal arts education in music. At its core, this includes (1) comprehensive knowledge of music cultures of the world, (2) understanding of the interrelationship of music, society, and culture, (3) grounding in the basics of Western music theory and musicianship, and (4) the experience of playing in one or several musical ensembles from various traditions around the world. Beyond the core students may, through elective courses, prepare for a variety of career goals, including 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-12 music teacher.

The concentration in jazz studies seeks to produce students who will 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.

At the graduate level, the department offers M.A. and Ph.D. degrees in Ethnomusicology, with specializations in systematic musicology and in ethnomusicology. Both 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

Ethnomusicology B.A.

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 video-tape of musical performance, following departmental guidelines.

Preparation for the Major

Required: Ethnomusicology 10A, 10B, 10C, 20A-20B-20C. Musical Cultures of the World. (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 oral and written notation, vocal and instrumental skills, melodic and rhythmic dictation, improvisation, and composition. Letter grading.

15. American Life in Music. (4) Lecture, three hours. Impact of ethnicity, race, gender, and other social processes on American music in the 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 the World. (5-5-5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Traditional and popular musics from many different countries, with introduction to basic ethnomusicological concepts and development of listening and analytical skills. P/NP or 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 to people by industry, technologies, and corporations. Survey of leading theorists of media and exploration of case studies. P/NP or letter grading.

Jazz Studies Concentration

Required: Ethnomusicology CM110A, M111, 120A or 120B, 127, 129A, 129B, 129C, 180 or 181, 186, 12 units of course 171, 12 units of course 177, Music History 150, and three elective courses from Ethnomusicology 105 through 121, M131 through 174, C176, C178, C179, C182, 196 through 197S.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Ethnomusicology.

Ethnomusicology

Lower Division Courses

5. Music Around World. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Overview of world's musical traditions by selecting one or two case studies from each of nine musical world regions: Pacific, East Asia, Southeast Asia, South Asia, Middle East, Africa, Europe, Latin America, and the U.S. and Canada. P/NP or letter grading.

10A-10B-10C. World Music Theory and Musician-ship. (5-5-5) Lecture, two hours; discussion, four hours; laboratory, two hours; 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 oral and written notation, vocal and instrumental skills, melodic and rhythmic dictation, improvisation, and composition. Letter grading.

120. History of Jazz. (5) Lecture, four hours; discussion, one hour. Overview of jazz history from 1890 to the late 20th century. Discussion of African roots, urban context, and forms of jazz from ragtime to bebop.

127. American Popular Music. (5) Lecture, four hours; discussion, one hour. Overview of the development of American popular music from 1900 to the present, with an emphasis on the 20th century. Classical, jazz, blues, country, rock, and popular music are studied in relation to social and historical context.

129A. Classical Music. (5) Lecture, four hours; discussion, one hour. Overview of Western art music from the Renaissance to the present, with an emphasis on the 20th century. Classical, romantic, impressionist, and post-schola
310 / Ethnomusicology

91A-91Z. World Music Performance Organiza-
tions. (2 each) Activity, three hours. Group perfor-
mance of additional instrumental music of word cultures. May be repeated for credit without lim-
itation. P/NP or letter grading. 91A. Music and Dance of the American Indians; 91B. Music of Bali; 91C. Mu-
sic and Dance of the Balinese; 91D. Music of China; 91E. Music and Dance of Ghana; 91F. Music of India; 91G. Music of Japan; 91H. Music of Java; 91J. Music of Korea; 91K. Music of Mexico; 91L. Music of Persia; 91M. Music of the Philippines; 91N. Music of the Pacific Americans; 91T. Jazz Orchestra. Preparation: audi-
tion. Large group jazz ensemble that performs big band jazz repertoire. Emphasis on improvisational and solo performance techniques in traditional big band, Latin jazz, and contemporary jazz genres. Letter grading; 91Z. Open Ensemble.

92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semiprivate music instruction with a distinguished community-based teacher, which must be arranged by students and approved by course instructor. May be repeated for credit without limitation.

Upper-Division Courses

105. Music, Musicians, and Music Industry. (4) Lecture, four hours; outside study, eight hours. De-
signed for music industry majors from wide array of backgrounds and interests. How music industry functions and how products are created, marketed, and consumed. Basic information on production of record; legal concerns faced by musicians, students, and scholars who use music in their work. Let-
ter grading.

106A. Traditional North American Indian Music. (4) Lecture, four hours. Native North American tradi-
tional music and its role in tribal societies. California, Southwest, Pacific Northwest, Northern and Southern Plains, Great Lakes/Eastern Woodlands, and South-
estern culture areas included. P/NP or letter grad-
ing.

106B. Contemporary North American Indian Mu-
sic. (4) Lecture, three hours; discussion, one hour. Contem-
orary Native North American musical expression, including popular styles (folk, country, rock), in-
tertribal 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 traditional music and its role in indigenous societies. Topics include relationship between speech and song, use of music by shamans, musical struc-
tures, and use of indigenous music in creating nation-
alist and popular music styles. Letter grading.

M108A-108B. Music of Latin America. (4-4) Lecture, four hours; discussion, one hour. Course M108A is not requisite to M108B. Survey of traditional and con-
temporary musical culture. M108A. Mexico, Central America, and the Caribbean Isles. (Same as Chicana and Chicano Studies M108A); 108B. Latin South America.

M109. Women in Jazz. (4) (Same as Afro-American Studies M109 and Women’s Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from the 1880s to the present. Survey of women vocalists, instrumentalis-
ters, instrumentalists, composers/arrangers, and produc-
ters and their impact on development of jazz. P/NP or letter grading.

CM110A-CM110B. African American Musical Heri-
tage. (4-4) (Formerly numbered M110A-M110B.) Lecture, four hours; discussion, one hour. Study of Afri-
can music and its impact on America; survey of de-
velopment of various African American musical genres from slave era to the present, including tradi-
tions in West Indies and Central and South America. Concurrently scheduled with courses CM210A-
CM210B. P/NP or letter grading.

CM111. Ellingtonia. (4) (Same as Afro-American Studies M1145.) Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s musical, known as “Ellingtonia,” is one of the largest and per-
haps most important bodies of music ever produced in the U.S. Covers the many contributions of other art-
ist who worked with Ellington, such as composer Bil-
ly Strayhorn and musicians Johnny Hodges, Coolies Williams, and Mercer Ellington.

CM112. African American Music in California. (4) (Same as Afro-American Studies CM112A.) Lecture, four hours. Historical and analytical examination of Af-
rican American music in California, including history, migration patterns, and urbanism to determine their impact on development of American music in California. Concurrently scheduled with course CM212. P/NP or letter grading.

113. Music of Brazil. (4) Lecture, three hours. Histo-
ry of chicano music in Brazil, with some refer-
ce to Portuguese antecedents.

M115. Musical Aesthetics of Los Angeles. (4) (Same as Chicana and Chicano Studies M115.) Let-
ture, three hours. Confronting aesthetics from classi-
cal perspective of art as intuition, examination on a cross-cultural basis of diverse musical contexts within the vast multicultural megapolises of Los Angeles, and their focus on various musical networks and specific expe-
riences of the Chicano/Latino, African American, American Indian, Asian, rock culture, Western art mu-
sic tradition, and jazz industry.

M116. Chicano/Latino Music in the U.S. (4) (Same as Chicana and Chicano Studies M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of the U.S.

117. American Popular Music. (4) Lecture, four hours; discussion, one hour. Survey of history and characteristics of American popular music and its re-
lationship to American culture, with emphasis on 20th-century popular music and its major composers, including comparison between traditional pre-1950 popular music and trends in post-1950 popular music. P/NP or letter grading.

118. Development of Rock. (5) Lecture, four hours. Examination of historical and stylistic development of rock from the 1950s to the present, with attention to its sociocultural and political impact on American so-
ciety and beyond. P/NP or letter grading.

M119. Cultural History of Rap. (4) (Same as Afro-
American Studies M119.) Lecture, four hours; discus-
sion, one hour. Development of rap music and allied forms, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

120A-120B. Development of Jazz. (4-4) Lecture, four hours; discussion, one hour. Introduction to jazz; its historical background and its development in the U.S.

121. Cross-Cultural Perspectives in Jazz. (4) Ex-
ploration of assimilation and retention of jazz from the U.S. in various countries, with particular emphasis on cultural and social features which form the basis for new jazz-ethnic music blends.

C122A-C122B-C122C. Jazz Styles and Analysis. (4-4-4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology, Music, and Music His-
tory majors. In-depth analysis of jazz styles and rep-
tatoire intended for students with music backgrounds. Concurrently scheduled with courses C222A-C222B-
C222C. Letter grading.

C122A. Early Jazz to Swing Era; C122B. Bebop to Avant-garde; C122C. Jazz since the Sixties.

123. Music of Bebop. (4) Lecture, three hours. Study of jazz bebop tradition, including analysis of com-
positional forms and song styles, improvisations, and developments from 1940 to the present.

125A-125B-125C. Jazz Composition and Arrang-
ing. (2-2-2) Lecture, two hours; outside study, four hours. Examination of various aspects of jazz compo-
sition. Differentiation between improvisation and no-
tated composition, as well as between composition and arranging, and introduction to basic arranging con-
cept. Letter grading. 125A. Early Jazz to Swing Era. 125B. Bebop to Avant-garde; 125C. Jazz since the Sixties.

127. Jazz Keyboard Harmony. (1) (Formerly num-
bere dM127.) Laboratory, two hours. Study of jazz
harmony through use of piano keyboard. Develop-
ment of basic keyboard skills in order to manipulate essential chord voicings and harmonic passages in jazz music. Instruction in basic jazz theory. Letter grading.

128A-128B-128C. Jazz Theory and Improvisation. (2-2-2) (Formerly numbered M129A-M129B-M129C.) Lecture, four hours; outside study, eight hours. Ele-
ments of jazz theory and improvisation. Letter grad-
ing. 128A. Basic jazz harmonic constructions, as well as melodic, rhythmic, and harmonic concepts, and how to apply those elements to personal efforts in im-
provisations. 128B. Requisite: course 128A with a grade of C or better. Mediation of jazz harmonic con-
structions. 128C. Requisite: course 128B with a grade of C or better. Advanced-level jazz harmonic con-
structions.

133. Music of Latin Jazz. (4) (Same as Music M133.) 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. Jazz and African Musics: Politics, Identities, National-
isms. (5) Lecture, four hours; outside study, 12 hours. Limited to Ethnomusicology, Music, Musicolo-
gy, Music History, and European Studies majors. Eu-
ropean 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.

C136A-C136B. Music of Africa. (4-4) Lecture, four hours; outside study, eight hours. Concurrently scheduled with courses C235A-C235B. Letter grad-
ing. C136A. Introduction to music of Africa through general discussion of select topics such as continent and its peoples, function, musician, instruments, mu-
structural and related arts, and contemporary music. C136B. Introduction to music of various Afri-
can cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cogni-

zant of contributions that people of Africa have made to world music.

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.

147. Survey of Classical Music in India. (4) Exami-
nation of melodic, metric, and formal structures of In-
dian classical music in context of religious, sociocul-
tural, and historical background of the country.

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 im-
peratives have long had a direct and often explicit im-
pact on music sound and context in East Asia. Exam-
ination of interplay of interaction and musical practice in modern and contemporary Korea and in contemporary Japan, Taiwan, and China. Concurrently scheduled with course C250. Letter grading.
170. Acoustics. (4) Lecture, four hours; discussion, one hour. Interrelationship of acoustical and musical phenomena. Tuning systems, consonance and dissonance, ideas concerning pitch, and perception of pitch. Limited to 12 units.

172A. Cognitive Psychology of Music. (4) Lecture, four hours; discussion, one hour. Designed for nonmajors. Introduction to psychology of music; historical background and the broad field of study, including use of music as a stimulus, tests and measurements, and related modes of musical behavior. P/NP or letter grading.


176. Psychology of Film Music. (4) Lecture, four hours; outside study, eight hours. Exploration of music in film, animation, and dance through lenses of cognitive psychology, with a focus on interpretation of music relative to modes of musical meaning. Concurrently scheduled with course C276. Letter grading.

177. Jazz Combo. (2) (Formerly numbered M177.) Activity; two hours; laboratory, four hours. Small group performance of various styles in ensembles of three to 10 musicians. Minimum of 12 units required for jazz studies concentration students. May be repeated for a maximum of 18 units. Letter grading.


180. Analysis of Traditional Music. (4) (Formerly numbered M180.) Lecture, four hours. Designed for Ethnomusicology, Music History, and Folklore majors. Advanced study of methods and techniques necessary to understand traditional music. P/NP or letter grading.

181. Anthropology of Music. (4) Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of social behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, political, religious, and social structure.
203. European Musics: Politics, Identities, Nationalisms. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. European classical, popular, and traditional musics, with particular attention to the Roman Catholic Church, modes of representation of centuries, and the effect of religious and political events on musical style and content. Concurrently scheduled with course C202. S/U or letter grading.

233A-233B-233C. European Traditional and Popular Music. (0-0-4) Discussion, one hour. Review of literature on European traditional and popular music, with special attention to musical and historical processes. May be repeated for credit. In Progress (233A, 233B) and letter (233C) grading.

236A-236B. Music of Africa. (4-4) Lecture, four hours; outside study, eight hours. Concurrently scheduled with courses C136A-C136B. Letter grading.

236A. Designated for graduate students. Introduction to music of Africa through general discussion of select topics such as continent and its function, musician, instruments, musical style and related arts, and contemporary music. C236B. 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 found on African continent and become more cognizant of contributions that people of Africa have made to world music.


241. Music of Iran and Other Non-Arabic-Speaking Communities. (4) Lecture, three hours. Requisite: course 282 or course in ear training, analysis, and theory. Comparative study of music of Iran and other related areas, including Iran, 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) required.

248. Classical Music of India. (4) Formerly numbered 248A-248B.) Lecture, three hours; outside study, nine hours. Study of history, theory, and practice of north and south Indian classical music. During first term, emphasis on music history and traditional theory; second term, analysis of modern systems, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. S/U or letter grading.

250. Music and Politics in East Asia. (4) Lecture, four hours; outside study, seven hours. For graduate students. Political imperatives have long had a direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.

251. Music of Indonesia. (4) Formerly numbered 250A-250B.) Lecture, three hours; outside study, nine hours. Requisite: course 20C. During first term, emphasis on music and related performing arts of Java. Focus on music and performing arts of Bali and other Indonesian islands during second term. Concurrent participation in one Indonesian performance group (course 91B or 91H) required. S/U or letter grading.

252. Seminar: Music of Mainland Southeast Asia. (4) Seminar, three hours. Requisite: course 20C. Presentation of musical and performance traditions of Laos, Cambodia, Vietnam, Thailand, and Burma, both in mainland Southeast Asia and in the American context, with perspectives from archaeology, history, performance theory, applied anthropology, and ethnomusicology.


259. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Ethnomusicology, Music, Ethnomusicology, 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, Tibet, Tibet-Burmans, peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C159. S/U or letter grading.

261. Gender and Music in Cross-Cultural Perspective. (4) Same as Women’s Studies M261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnography of gender and sexuality, (de)coding of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

262. Perspectives in Popular Music Research. (4) Seminar, three hours. Investigation of theoretical paradigms, issues, and research methods of popular music, with emphasis on world music genres, local/global markets, mass mediation, appropriation and aesthetics of style, ethnographic methods, and impact of popular music studies on ethnomusicology. Letter grading.

264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Theoretical and methodological issues in study of the city as cultural entity that affects and is affected by music making. S/U or letter grading.

265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression as spiritual/religious and as artistic expression in world's religions. S/U or letter grading.


267. Music and Ecstasy. (4) Seminar, three hours; outside study, nine hours. Relationship between musical and traditional society, (de)codification of messages of resistance, and political/religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, 10 hours. Limited to graduate students. Examination of possibilities for subject-centered musical ethnography to account for fragmented musical experience in modern world. Consideration of local and “world” music in relation to modernity, postmodernism, globalization, notions of self and subject, power, and media images. Letter grading.

269. Music, Science, and Technology. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for Ethnomusicology, Music, and Ethnomusicology majors. Application of science and technology for both creation and representation of music. Introduction to tools and techniques such as CD mastering, digital sampling, recording, and music synthesis, as well as scientific principles underlying such technologies. Concurrently scheduled with course C169. Letter grading.
271. Seminar: Acoustics of Music. (6) Seminar, three hours. Requisite: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western instruments, tuning systems, psychoacoustics, and methods of spectral analysis. May be repeated once for credit.

273. Seminar: Psychology of Music. (6) Seminar, three hours. Requisite: course 173. Selected topics in psychology of music, including recent findings in brain research, musical perception, learning, cognition, memory, therapy, affect, meaning, and measurement. May be repeated once for credit.

273. Seminar: Aesthetics of Music. (6) Seminar, three hours. Requisite: course 176. 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.

C276. Psychology of Film Music. (4) Lecture, four hours; outside study, eight hours. Exploration of music in film, animation, and dance through lenses 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: Ethnomusicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, aesthetics, perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit.

280. Teaching World Music and Music Appreciation. (4) Seminar, three hours. Preparation: two ethnomusicology courses or concurrent enrollment in course 20A, 20B, or 20C. Designed for ethnomusicology and musicology graduate students. Practical overview of current pedagogical philosophies and texts used in elementary and secondary school teaching. May not be applied toward degree requirements.

281A-281B. Fieldwork Concepts and Methods Using Interactive Technologies. (6) Seminar, three hours; laboratory, two hours. Requisites: courses 201A-201B. Musical instruments studied in performance, recording, and interpretation. Topics include 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.


283. Seminar: Study of Musical Instruments (Organology). (6-6) Seminar, three hours. Requisites: courses 201A-201B. Fieldwork concepts and methods using technical equipment, conducting interviews, dealing with ethical issues, and designing research projects.

283. Seminar: Study of Musical Instruments (Organology). (6) Seminar, three hours. Requisite: course 180 or graduate ethnomusicology student. Intensive discussion of techniques used in ethnomusicological analysis, including transcription and notation, with emphasis on analysis of musical performance and music events.


288. Research Design and Grant Writing in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Design of dissertation research proposal, locating and applying for dissertation fieldwork grants, organizing and presenting advanced academic proposals with sophisticated methods and professional writing skills. Concurrently scheduled with course 297B.


292A-292Z. Seminars: Special Topics in Ethnomusicology. (4 each) Designed for graduate students. Utilization of specific expertise of regular and visiting faculty; topics of current interest presently offered in ethnomusicology program.

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 the University. May be repeated for credit. S/U grading.

405A. Teaching Apprenticeship. (2) Eight-week to two-hour seminar sessions; intensive training during Fall Quarter registration week.

495A. Teaching Apprentice Practicum. (2) Two-week to two-hour seminar sessions; intensive training session during Fall Quarter registration week.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limitated to graduate ethnomusicology students. Training in presentation, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of an electronic teaching portfolio. S/U grading.

596. Directed Individual Studies. (2, 4, or 6) On precept. Only 4 units may be applied toward M.A. minimum course requirements.

597. Preparation for Master’s Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) May be repeated for credit. S/U grading.

598. Guidance of M.A. Thesis. (4, 8, or 12) May be repeated for credit. S/U grading.


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European Studies

Undergraduate Study

European Studies B.A.

The B.A. degree in European Studies is based on four principles: (1) students acquire proficiency in a modern European language other than English, (2) students examine European societies and civilization in depth from a pan-European and regional perspective, in addition...
to the traditional national focus that language instruction typically provides, (3) they do so from an interdisciplinary point of view, taking courses in at least five different academic departments/programs, and (4) they take lower division courses to acquire a broad introduction to European heritage and upper division courses to study modern Europe in greater detail from the 19th century on.

**Admission**

Interested students should meet with the academic counselor to discuss the program requirements. To enter the major, students (1) must be in good academic standing (minimum 2.5 grade-point average), (2) have completed the foreign language requirements and six preparation for the major courses, (3) are expected to declare the major no later than the end of their sophomore year, and (4) should apply for the major in the academic counselor’s office.

**Preparation for the Major**

The preparation for the major consists of 24 to 30 units of foreign language, 8 units of humanities and arts courses, and 16 units of social sciences courses as follows:

**Foreign Language (24 to 30 units):** Students prepare for the major by studying one modern European language other than English — the declared foreign language — through the intermediate level. Students must fulfill the specific requirements of their selected language department. The relevant language departments are French and Francophone Studies (French), Germanic Languages (Dutch and German), Italian, Scandinavian Section (Danish, Finnish, Norwegian, and Swedish), Slavic Languages and Literatures (Czeoch, Hungarian, Lithuanian, Polish, Romanian, Russian, Serbian/Croatian, and Ukrainian), Spanish and Portuguese and, in the English Department, Yiddish.

In most cases, courses 1, 2, 3, 4, 5, 6, or the equivalent fulfill the requirement. The total number of units may vary according to the selected language. Students should complete the lower division foreign language requirement by the end of their sophomore year. If students wish to study a modern European language not taught in full by any UCLA department, they should consult with the academic counselor about how to fulfill the language requirement.

**Humanities and Arts (8 units):** (1) One course in literature or civilization taught in a language department to be selected from Dutch 100, English 90, French 12, 14, 14W, 41, 60, German 50A, 50B, 56, 58, 59, 60, 60W, 61A through 61D, 62W, Italian 42A, 42B, 46, 50A, 50B, Old Norse Studies 40, Portuguese M35, M42, Romanian 90, Russian 25, 25W, 30, 90A, 90B, 90BW, Scandinavian 50, 50W, Slavic 88, 90, Spanish M35, M42, 60A, 60C, 61A, 62A, or Yiddish 121A; (2) one course from Art History 54, Classics 10, 20, 30, 42, 51A, 51B, Comparative Literature 1A, 1B, 1C, Music History 3, 4, 66, Philosophy 1, 5, 6, or 8.

**Social Sciences (16 units):** (1) Two courses from two different departments selected from Economics 1, 2, 5, Geography 4, Information Studies 10, 20, Political Science 10, 20, 50, Sociology 1, 10, Statistics 10, M12; (2) two courses from one of the following series: History 1A, 1B, and 1C, or 2B, 2C, and 2D, or 3A, 3B, and 3C. Variable topics courses such as History 97C may also be applied toward the history requirement after consultation with the academic counselor.

**Transfer Students**

Transfer applicants to the European Studies major with 90 or more units should complete as many as the following introductory courses as possible prior to admission to UCLA: two years of a modern European foreign language other than English, one language department course in European literature or civilization or one course in a European country’s literature or civilization, one course in a humanities and arts department with focus on Europe, two courses from two different social sciences departments that must have a distinct methodological or European content, and two European history courses.

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**

The major consists of European Studies 101 and 11 additional upper division courses with substantial modern European content in at least five different departments/programs, with no more than four courses in any one department/program, as follows:

**Humanities and Arts (16 units):** (1) One course taught in a modern European language other than English, with instruction and reading assignments in that language, to be selected from Dutch 131, French 109, 114A through 120, German 132, 140A through 148, 152 through 162, Italian 103A, 103B, 103C, 113 through 120, Portuguese 120A, 120B, C124, C126 through C129, Russian 108, 130A, 130B, 130C, 140A through 140D, 150, Spanish 119A through 120A, 122 through 133, Yiddish 131A, or 131B; (2) two courses with a pan-European or regional focus from Art History 110C, M110D, Philosophy 118, Scandinavian 142, 143, C144 through C147, C180, C182, 184, CM186, 187 (one course from the list of European history courses).

**European Studies Courses**

101. **Introduction to European Studies.** (4) Seminar, three hours. Designed for European Studies majors. Interdisciplinary seminar that introduces students to central topics, themes, and concepts of European studies, including the individual and the state, cultural life, economic relations, nationalism, and international relations. Letter grading.

191. **Variable Topics in European Studies.** (4) For-merly numbered 102.) Seminar, three hours. Re-search seminar on selected topics in European stud-ies. Reading, discussion, and development of culmi-nating paper. May be repeated for credit with topic change. Letter grading.

199. **Directed Research in European Studies.** (4) Tutorial, to be arranged. Limited to senior European Studies majors. Independent research under guidance of faculty member. Culminating paper required. Individual contract required. Letter grading.

**Course List**

All courses are not offered every academic year. Students should contact the individual departments for information about the avail-
ability of specific courses. Other appropriate courses may be taken by petition.

**Art History**
54. Modern Art
110A. European Art of the 19th Century
110B. European Art of the 19th Century: Realism and Impressionism
110C. European Art of the 19th and 20th Centuries: Postimpressionism to Surrealism

**Classics**
10. Discovering the Greeks
20. Discovering the Romans
30. Classical Mythology
42. Cinema and the Ancient World
51A. Art and Archaeology of Ancient Greece
51B. Art and Archaeology of Ancient Rome

**Comparative Literature**
1A. World Literature: Antiquity to Middle Ages
1B. World Literature: Middle Ages to the 17th Century
1C. World Literature: Age of Enlightenment to the 20th Century

**Dutch (Germanic Languages)**
100. Modern Dutch Culture and Society
113. Modern Dutch and Flemish Literature in Translation
131. Introduction to Modern Dutch Literature

**Economics**
1. 2. Principles of Economics
5. Introductory Economics
181B. Development of Economic Institutions in Western Europe

**English**
90. Shakespeare
115B. British Popular Literature

**French (French and Francophone Studies)**
12. Introduction to Study of French and Francophone Literature
14. 14W. Introduction to French Culture and Civilization, in English
41. French Cinema and Culture
60. French and Francophone Novel
114A-114B-114C. Survey of French Literature
115. Medieval French Literature
116. Renaissance French Literature
117. 17th-Century French Literature
118. 18th-Century French Literature
119. 19th-Century French Literature
120. 20th-Century French Literature
137. French and Francophone Intellectual History

**Geography**
4. Globalization: Regional Development and World Economy
152. Cities of Europe
183. Europe

**German (Germanic Languages)**
50A-50B. Great Works of German Literature in Translation
56. Figures Who Changed the World
58. Knights and Ladies, Sex and Power at Medieval Court
59. Holocaust in Film and Literature
60W. War
61A-61D. Transatlantic Culture: Modern City in Central Europe
62W. Technoscience and German Culture
100C. War, Politics, Art
102A-102B. German Film in Cultural Context
132. Business German
140A. Introduction to German Poetry
140B. Introduction to German Drama
140C. Introduction to German Narrative Prose
142. Introduction to 18th-Century Studies
144. Introduction to 19th-Century Studies
146. Introduction to Modern Literature
148. Introduction to Contemporary Literature
152. Studies in German Literature before 1750
154. Goethe
156. Goethe's Faust
158. Romanticism
160. Advanced Study of Modern Literature
162. Advanced Study of Contemporary Literature and Culture

**History**
1A-1B-1C. Introduction to Western Civilization
2B. Social Knowledge and Social Power
2C-2D. Religion, the Occult, and Science
3A-3B-3C. Introduction to History of Science
120A-120B. East-Central Europe
120C. East-Central Europe in Transition, 1888 to 1993
120D. Film and History; Central and Eastern Europe, 1945 to 1989
121D-121F. History of Modern Europe
122F. Cultural and Intellectual History of Modern Europe, 20th Century
123B-123C. War and Diplomacy in Europe
124C. History of France
125C. 20th-Century Germany
125D. History of Low Countries
127C-127D. History of Russia
129B. Social History of Spain and Portugal
131A. Marxian Theory and History
134B-134C. Economic History of Europe
135C. Europe and World

**Information Studies**
10. Fundamentals of Information Search and Evolution
20. Introduction to Information Studies

**Italian**
42A-42B. Italy through the Ages in English
46. Italian Cinema and Culture
50A-50B. Masterpieces of Italian Literature in English
103A-103B-103C. Introduction to Italian Literature and Literary Analysis
113. Dante's La Divina Commedia
114A-114B. Middle Ages
116A-116B. Italian Renaissance
118. Age of Enlightenment
119. Italian Ottocento

**Music History (Musicology)**
120. Literature in the 20th Century

**Old Norse Studies**
40. Heroic Journey in Northern Myth, Legend, and Epic

**Philosophy**
1. Beginnings of Western Philosophy
2. Philosophy of Language
6. Introduction to Political Philosophy
8. Introduction to Philosophy of Science
118. Kierkegaard

**Political Science**
10. Introduction to Political Theory
20. World Politics
50. Introduction to Comparative Politics
111C. History of Political Thought
127A. Atlantic Area in World Politics
128B. International Relations of Post-Communist Russia
152A-152B-152C. Government and Politics of West European Countries
153A-153B. Comparative Government and Politics of Western Europe
156A-156B. Government and Politics of Post-Communist States

**Portuguese (Spanish and Portuguese)**
M35. Spanish, Portuguese, and Nature of Language
M42. Civilization of Spain and Portugal
120A-120B. Portuguese Literature
C124. Early Portuguese Literature
C126. Baroque and Neoclassical Portuguese Literature
C127. 19th-Century Portuguese Literature
C128. Post-Romanticism and Naturalism in Portuguese Literature
C129. 20th-Century Portuguese Literature

**Romanian (Slavic Languages)**
90. Introduction to Romanian Civilization

**Russian (Slavic Languages)**
25, 25W. Russian Novel in Translation
30. Russian Literature and World Cinema
90A. Introduction to Russian Civilization
90B, 90BW. Russian Civilization in the 20th Century
108. Russian for Business: Language and Culture
120. Literature and Revolution
124C. Studies in Russian Literature: Chekhov
124D. Studies in Russian Literature: Dostoevsky
124G. Studies in Russian Literature: Gogol
C124N. Studies in Russian Literature: Nabokov
124P Studies in Russian Literature: Pushkin
124T. Studies in Russian Literature: Tolstoy
125. Russian Novel in Its European Setting
126. Survey of Russian Drama
M127. Women in Russian Literature
128. Russian Science Fiction
130A-130B-130C. Russian Poetry
140A-140D. Russian Prose Fiction
150. Russian Folk Literature

**Scandinavian**
50, 50W. Introduction to Scandinavian Literatures and Cultures
142. Scandinavian Literature of the 19th Century
143. Scandinavian Literature of the 20th Century
C144. Henrik Ibsen on World Stage
C145. Getting Married: Strindberg and Battle of Sexes
C146. Kierkegaard and Foundations of Existentialism
C147. Pan's Prophets: Knut Hamsun and Other Interpreters of Nature as Modern Idyll
C180. Literature and Scandinavian Society
181. Contemporary Swedish Literature
C182. Theory of Scandinavian Novel
184. Hans Christian Andersen
CM186. Voices of Women in Scandinavian Literature
187. Scandinavian Film: Bergman and Others

**Slavic (Slavic Languages)**
B8. Seminar: Literature and Culture
90. Introduction to Slavic Civilization

Sociology
1. Introductory Sociology
FAMILY MEDICINE
David Geffen School of Medicine
UCLA
50-071 Center for the Health Sciences
Box 951683
Los Angeles, CA 90095-1683
(310) 825-8234
http://fm.mednet.ucla.edu

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Directors
Daniel Castro, M.D., Harbor-UCLA
Gregory Daquist, M.D., Pomona Valley
Thomas Dunlop, M.D., Ventura County
Pamela Davis, M.D., Acting Director, Northridge Hospital
James H. Hara, M.D., Kaiser-Sunset
Denise K.C. Sur, M.D., UCLA-Santa Monica

Scope and Objectives
The Department of Family Medicine seeks to provide 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. 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 health care 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 active both in leadership roles in the teaching curriculum and in the new 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 and a listing of the courses offered, see http://fm.mednet.ucla.edu.

FILM, TELEVISION, AND DIGITAL MEDIA
School of Theater, Film, and Television
UCLA
103 East Melnitz Building
Box 951622
Los Angeles, CA 90095-1622
(310) 825-5761
e-mail: info@tf.gov
http://www.filmtv.ucla.edu/filmtv/home.htm

Barbara Boyle, J.D., Chair

Professors
Barbara Boyle, J.D.
Nicholas K. Browne, Ed.D.
John T. Caldwell, Ph.D.
Gilbert Cates, M.A.
Thomas F. Denove
Teshome H. Gabriel, Ph.D.
Gyula Gazdag, M.F.A.
Marina Goldovskaya, Ph.D.
A.P. Gonzalez
Stephen D. Mamber, Ph.D.
Dan F. McLaughlin, B.A.
Chon A. Noriega, Ph.D.
Robert Rosen, M.A., Dean
Delia N. Salvi, Ph.D.
Becky J. Smith, M.A.
Vivian Slobach, Ph.D.
Richard Walter, M.A.
Peter Wollen, B.A.

Professors Emeriti
William B. Adams, M.A.
Jerzy Antczak, M.A.

John D. Boehm, M.A.
William Froug, B.J.
Hugh M. Grauel, M.A.
Richard C. Hawkins, M.A.
Lewis R. Hunter, M.A.
Walter K. Kingson, Ed.D.
Barbara Markes
Mark McCarty, M.A.
William H. Menger, M.A.
Jorge R. Poloron, B.A.
Darrell E. Ross, M.F.A.
Ruth E. Schwartz, Ph.D.
Howard Suber, Ph.D.
Robert Trachinger
John W. Young, M.A.

Associate Professors
Janet L. Bergstrom, Ph.D.
William McDonald, M.F.A.
Kathleen A. McHugh, Ph.D.
Celia L. Mercer, M.F.A.
Nancy Richardson, M.F.A.
C. Fabian Wagnister, M.F.A.

Assistant Professors
Denise R. Mann, M.F.A., Ph.D.
Steven Ricci, M.F.A., Ph.D.

Lecturers
Harold Ackerman, M.A.
Steve D. Albrezzi
Brian Boyl
Scott M. Brownlee
Rory M. Kelly
Lisa D. Kernan
Eric Marin
Douglas A. Ward
Billy Woodberry

Adjunct Professor
Myrl A. Schreibman, M.F.A.

Adjunct Assistant Professors
Dee Caruso, M.A.
John Simmons, M.F.A.
Belinda S. Starke, M.F.A.

Visiting Professors
Elizabeth Cohen, Ph.D.
Peter Guber, L.M.
Cecelia Hall
Jan-Christopher Horak, Ph.D.
Jerome Katzman
Emanuel Levy
Robert Vianello

Visiting Associate Professor
Jonathan Kuntz, Ph.D.

Visiting Assistant Professors
Bill Barinski
Deborah Baron
Neema Barnette
Eric Baum
Sanford Berman
Lisa Buono
Jeffery A. Burke
Michael Collieary (Lew and Pamela Hunter/Janice Zakin Professor of Screenwriting)
Maria Elena de las Carreras
Duane Dell/Amico, M.F.A.
Richard Edwards
Steve Payne
Michael Friend
Alan Fri
Tom Garvin
George Gary
Geoffrey Gilmore
Julie Golden
Sheila Hanahan
Felicia Henderson, M.F.A. (Lew and Pamela Hunter/Janice Zakin Professor of Screenwriting)

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Alan Fri
Tom Garvin
George Gary
Geoffrey Gilmore
Julie Golden
Sheila Hanahan
Felicia Henderson, M.F.A. (Lew and Pamela Hunter/Janice Zakin Professor of Screenwriting)
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.

**Preparation for the Major**

*Required:* Film and Television 106A, 106B or 106C; 110A, and one theater course (history, literature, or production).

**The Major**


Students should be mindful of the exigencies inherent in filmmaking and be prepared to meet the additional demands of time and costs.

Students are required to perform assignments on each other's projects. In addition, the department reserves the right to hold for its own purposes examples of any work done in classes and to retain for distribution such examples as may be selected.

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://www.gdnet.ucla.edu. 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 Film, Television, and Digital Media offers Master of Arts (M.A.), Master of Fine Arts (M.F.A.), and Doctor of Philosophy (Ph.D.) degrees in Film and Television.

**Film and Television**

**Lower Division Course**

M50. *Introduction to Visual Culture.* (5) (Same as English M50.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Critical study of cinema as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change.

**Upper Division Courses**

100. Undergraduate Symposium. (1 or 2) Labo- ratory, three hours. Limited to Film and Television ma- jors. Structured forum in which undergraduate majors meet on a regular basis to discuss curricular issues, meet with faculty, and have exposure to an array of guest speakers from within the film industry. May be repeated for a maximum of 4 units. Letter grading.

106A. *History of the American Motion Picture.* (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106B. *History of the European Motion Picture.* (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

106C. *History of African, Asian, and Latin Ameri- can Film.* (6) Lecture/screenings, eight hours; discus- sion, one hour. Historical and critical survey, with examples, of European motion picture both as a developing art form and as a medium of mass communication. May be repeated once for credit with consent of department and topic change. Letter grading.

107. Experimental Film. (6) Lecture/screenings, eight hours; discussion, one hour. Study and analysis of unconventional developments in the motion picture.


110A. *American Television History.* (8) Lecture/ screenings, eight hours; discussion, one hour. Critical survey of history of American television from 1940s to the present, with examination of interrelationships between forms, industry, social trends, and culture. Let- ter grading.

110C. *World Media Systems.* (4) Lecture/viewing, four hours; discussion, one hour. Requisite: course 110A. Designed for 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.

M111. *Women and Film.* (6) (Same as Women's Studies M111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, star- dom, female genres, and images of women in Holly- wood cinema, alternative cinema, and independent cinema from silent era to the present. Letter grading.

112. *Film and Social Change.* (6) Lecture/screen- ings, eight hours; discussion, one hour. Development of documentary and dramatic films in relation to and as a force in social development. Letter grading.

113. *Film Authors.* (6) Lecture/screenings, eight hours; discussion, one hour. In-depth study of a spe- cific film author (director or writer). May be repeated once for credit with consent of department and topic change.

114. *Film Genres.* (6) Lecture/screenings, eight hours; discussion, one hour. Study of a 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.
115. Stylistic Studies for the Moving Image: Theo-
ry and Practice. (4) Lecture, four hours; screenings, four to eight hours. Daily study on a wide array of historical
examples, and using laser disc technologies,
examination of many expressive strategies potentially
usable in creation of moving image art forms: iconog-
raphy, editing, composition, kinesthetics, sound, nar-
rative, discourse, and genre.
116. Film Criticism. (4) Lecture, four hours; labora-
tory, to be arranged. Study of and practice in film criti-
cism.
M117. Chicanoas in Film/Video. (6) Same as Chica-
no and Chicana Studies M114.) Lecture/screening,
eight hours; discussion, one hour. Examination of
representation of Mexican Americans and Chicanos
in four Hollywood genres—silent “greaser” films,
social problem films, the Western, and the gang film —
which are major genres that account for films “about” or
“with” Mexican Americans produced between 1908
and 1980. Examination of recent Chicano-produced
films that subvert or “signify” on these Hollywood
genres, including Zoot Suit, The Ballad of Gregorio

tory, to be arranged. Study of and practice in film criti-
craphy, editing, composition, kinesthetics, sound, narrative,
discourse, and genre.
140. Interactive Expression. (4) Lecture, six hours.
Introduction to history and practice of interactive me-
dia, with emphasis on uniqueness of computer-mediated
expression. Letter grading.
C142. Digital Imagery and Visualization. (4) Lectu-
re, three hours; laboratory, three hours. Introductory
hands-on investigation of techniques of digital still im-
ageing and aesthetics of digital image, in context of ex-
amining 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 differ-
ent ways of creating and manipulating linear moving
images (digital video) on desktop computers, explor-
ing both creative and theoretical aspects of this pro-
duction environment. Concurrently scheduled with
a number of short projects. Concurrently scheduled with
course C243. Letter grading.
C144. Interactive MultiMedia Authoring. (4) Lectu-
re, three hours; laboratory, three hours. Introduction
and application 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
C244. Letter grading.
Lecture, three hours; laboratory, three hours. Explora-
tion of creative aspects of World Wide Web as medi-
um for personal/collective expression. Students pro-
duce Web works and serve them online. Contextual-
ization of medium by looking at its history, embedded
ideology, and sociopolitical consequences. May be
repeated once for credit. Concurrently scheduled with
course C245. Letter grading.
C147. Planning Independent Feature Production. (4)
Lecture, three hours. Analysis of procedure, prob-
lems, and budgets in planning feature-length script for
film and television production, with emphasis on role of
producer and producer’s technical roles in producing.
Concurrently scheduled with course C247. Letter
grading.
C148. Advanced Digital Media Workshop. (4) Dis-
ussion, 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
C248. Letter grading.
150. Motion Picture Lighting. (4) Lecture, three
hours; laboratory, three hours. Requisite: course 150.
Limited to Film and Television majors. Introduction to
principles and tools of lighting in visual storytell-
ing through lectures, discussions, and screenings.
Creative lighting techniques covering topics such as
people, environment, spatial relationships, move-
ment, and special effects.
154. Film Editing. (4) Lecture, three hours; laborato-
ry, to be arranged. Limited to Film and Television ma-
jors. Introduction to artistic and technical problems of
film editing, with practical experience in editing of im-
age and synchronous sound.
C154B. Advanced Film Editing. (4) Lecture, three
hours; laboratory, one hour. Preparation: submission
of rough cut of existing project or proposal to edit
work of another director. Requisite: course 154. Limit-
ed to film and television majors in postproduction
phase with advanced knowledge of organization and
operation of postproduction process. Students may also
propose to edit significant scene given to them by
instructor. Concurrently scheduled with course
C454B. Letter grading.
155. Introduction to Digital Media and Tools. (4)
Lecture, six hours; laboratory, to be arranged. Limited to
Film and Television majors. Examination of tech-
iques in basic concepts and software of virtual produc-

denial American experience, experience of impact and uses of
media on contemporary American ethnic commun-
ities. Role and contributions of media influence besides
community utilization and production.
CM129. Contemporary Topics in Theater, Film, and
Television. (2) (Same as Theater CM129.) Lectu-
re, two hours; screenings, two hours. Limited to jun-
or/senior and graduate theater/film and television stu-
dents. Examination of creative process in theater,
film, and television, with consideration of writing, dire-
ction, production, and performance. Overview of in-
dividual contributions in the collaborative effort; exam-
ination of distinctiveness and interrelations among
these arts. Individual units include participation of
leading members of theater, film, and television pro-
fessions. May be repeated with consent of credit.
CM130B. Screenwriting Fundamentals. (2) Lecture,
one hour. Corequisite for graduate students enrolled in
course 230B. Examination of screenwriting funda-
mentals: structure, character and scene develop-
ment, conflict, locale, theme, history of drama. Re-
view of authors such as Aristotle, Egri.
CM130B. Screenwriting Fundamentals Workshop. (4)
Discussion, three hours. Problems in film and televi-
sion writing.
131. Nontheatrical Screenwriting for Film and
Television. (4 or 8) Discussion, three hours. Re-
search and writing of documentary, technical, educa-
tional, industrial, and propaganda scripts. May be re-
peated for a maximum of 12 units.
135A-135B-135C. Advanced Screenwriting Work-
shops. (8-8-8) Laboratory, three hours. Requisite:
course 130B. Course 135A is requisite to 135B, which
is requisite to 135C. Courses in television screen-
writing. First act of original screenplay to be de-
veloped in course 135A, followed by second act in
course 135B, and third act in course 135C. Letter
grading.
175A-175B. Undergraduate Film Production. (8-4
to 8) Limited to Film and Television majors. 175A.
Lecture, four hours; laboratory, eight hours. Writing,
preproduction, and production for a short film non-
sound film. 175B. Lecture, three hours; laboratory,
eight hours. Completion of postproduction (editing,
creation of sound sync) for short film begun in
course 175A. 176A-176B. Advanced Undergraduate
Video Production (8-4 to 8). Discussion, three hours; labora-
tory, to be arranged. Requisite: course 185. Limited to
Film and Television majors. Preparation: film production
(no more than 20 minutes), including its writing, produc-
tion, and editing. Letter grading.
181A. Animation Design in Film and Television. (4) Lecture, three hours; laboratory, three hours. History and use of creative arts used in animation to form effective communication on film.

181B. Writing for Animation. (4 to 6) Lecture, six hours; laboratory to be arranged. Requisite: course 181A. Research and practice in creative writing and planning for animated film. May be repeated for a maximum of 16 units.

181C. Animation Workshop. (4 or 8) Lecture, six hours; laboratory, 0-4-4. Production: storyboard board at first class meeting. Requisite: course 181A. Organization and integration of various creative arts used in animation to form a complete study of a selected topic. May be repeated for a maximum of 16 units.

184. Overview of Contemporary Film and Television Industries. (4) Formerly numbered 189B.) Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood film and television industries, with emphasis on operations of studios and networks, their marketing and distribution systems, and their relationship to independent producers, talent, and agencies. Letter grading.

185. Undergraduate Television and Video Production. (6) Laboratory, six hours. Limited to Film and Television majors. Instruction and exercises in basic techniques of television and video production. Letter grading.

186. Introduction to Documentary Video Production. (4) Lecture, three hours; laboratory, three hours; fieldwork, 12 hours. Limited to Film and Television majors. Viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of a series of exercises from conceptualization through postproduction, culminating in production of short documentary.

187A-187B-187C. Producing and Directing Remote Multicamera Production. (4-6) Lecture/laboratory, three hours (additional hours to be arranged). Letter grading. 187A. Professionally oriented lecture/laboratory/field workshop course designed to provide disciplined planning, responsible leadership, and organizational and problem-solving skills required in deadline remote production. Emphasis on clarity of vision, storytelling, effective execution of pitch, preproduction, shoot, and editorial. 187B-187C. Instruction and supervised productions of the remote experience, with focus on development and execution of concept. Experience closely patterned after professional experiences in working with talent, production venues, and production logistics of remote on-location video programs.

193A. Film 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 acquisition, cataloging, storage, and retrieval systems. Special attention to promotion of new technology, equipment, and program materials to television archival-library design for research and teaching.

193B. Television Curatorship. (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, cataloging, storage, and retrieval systems. Special attention to application of new technology, equipment, and program materials to television archival-library design for research and teaching.

194. Internship Seminars: Film, Television, and Digital Media. (2) Seminar, two hours. Corequisite: course 195. Limited to juniors/seniors who are interning at film/television industry. Nonmajors must complete application in Center for Community Learning, A233 Murphy Hall, to be considered. Discussion of contemporary industry issues and practices. Letter grading.

195. Corporate Internship in Film, Television, and Digital Media. (2 or 6) Formerly numbered 192.) Tutorial, two hours; fieldwork, 14 or 20 hours. Corequisite: course 194. Limited to juniors/seniors. Nonmajors must complete application in Center for Community Learning, A233 Murphy Hall, to be considered. Corporate internship in supervised setting in business related to film and television industries. Student meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. Letter grading.

199. Special Studies in Film and Television. (2 to 8) Preparation: 3.0 grade-point average in major. Limited to seniors. May be taken for a maximum of 8 units.

Graduate Courses

200. Bibliography and Methods of Research in Film and Television. (6) Discussion, three hours; laboratory, four to six hours (additional screenings and/or video laboratory work as required). Designed for graduate students. Examination and study of research methods, techniques, and resources related to film and television research, including development of computer skills for preparation of bibliographies, on-line database searching and retrieval and, when appropriate, use of computer/videodisc technology for research.

201. Media Industries and Content Production. (6) Seminar, three hours; film screenings, three hours. Theory and method in study of media industries, with focus on cultures of production (production world as cultural form). Investigation of ways production practice itself supports and constrains, institutional, cultural, and critical practice. Letter grading.

202. Media Audiences and Cultures of Consumption. (6) Seminar, three hours; film screenings, three hours. Critical study of reception and use of television and electronic media and examination of theoretical approaches to culture and audience research. Consideration of issues of cultural taste, consumerism, style/lifestyle, identity, and relationships between audience, industry, and mass-marketed images commodities. Letter grading.

203. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in interrelationships between film and fine arts, or performing arts, or literature, with emphasis on ways these other arts have influenced film. May be repeated twice for credit.

206A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in selected historical movements such as expressionism, socialist realism, surrealism, neo-realism, New Wave, etc. May be repeated twice for credit.

206B. Selected Topics in American Film History. (6) Seminar, three hours; film screenings, four hours. Recommended preparation: course 106A or 209A. Advanced focus on specific topic or period in U.S. film history. Letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four hours. Introduction to industrial, social, and aesthetic history of the American film. Letter grading.

207. Seminar: Experimental Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of form, style, politics, and history of experimental, innovative, avant-garde, and minority film and video.

208A. Seminar: Film Structure. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of various film conventions, both fictional and nonfictional, and of role of structure in motion picture. S/U or letter grading.

208B. Seminar: Classical Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Study of principal topics and lines of inquiry that characterize theoretical writings of Arnheim, Eisenstein, Bazin, Kracauer, etc. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Requisite: course 208B. Designed for graduate students. Study of redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

209A. Seminar: Documentary Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Nonfictional film and its relation to contemporary culture.

209B. Seminar: Fictional Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Film as fiction and its relation to contemporary culture. May be repeated once for credit.

209D. Seminar: Animated Film. (4) Seminar, three hours. Laboratory, to be arranged. Designed for graduate students. Critical study of animated film: its historical development, structure, style, use, and relation to contemporary culture.

210. Seminar: Contemporary Broadcast Media. (6) 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, associated with innovations in satellite, cable, and cartridge systems.

211A. Seminar: Historiography. (6) Seminar, three hours. Limited to Film and Television M.A. candidates. Beginning examination of function and methods of writing film and television history as seen in works of key historians in the U.S. and Europe.

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 the media.

215. Seminar: Theory and Method. (4) Seminar, three hours. Limited to Film and Television Ph.D. candidates. Examination of major modes of theoretical reflection that bear on film and television through study of central texts of such traditions as phenomenology, auteurism, semiotics, psychoanalysis, sociology, etc.

217A. Seminar: American Television History. (6) Seminar, three hours; screenings, four hours. Critical survey of U.S. television industry from its inception to the present. Examination of programming and changes within the industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television History. (6) Seminar, three hours; screenings, three hours. Advanced critical seminar, with focus on specific topic or area (historical period, industry, programming, genre, or social formation) in domestic or international television. Letter grading.
218. Seminar: Culture, Media, and Society. (6) Seminar, four hours; screenings/discussion, three hours. Enrollment limited to junior or senior students. Examination of the relationship between mass culture and the economy. Studies such as the cultural industries, the mass media, and popular culture. Enrolled students are expected to participate in the discourse of the other. The maturation of the other is concerned with theories of "difference" rather than similarity or identity — with how other cultures enter into politics of representation and representation of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness without ethnocentrism. Examination of how women, national minorities, and Third World have been rendered others; place of the cinematic apparatus in this process and how academization of others is positioned vis-à-vis mainstream 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.

220. Seminar: Television and Society. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief, and value systems; study of technological and economic aspects of the medium. May be repeated once for credit. S/U or letter grading.

221. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Intensive examination of works of outstanding creators of films. May be repeated twice for credit.

222. Seminar: Visual Perception. (4) Seminar, three hours; film screenings, two hours. Aesthetic, psychological, and phenomenological approaches to vision as they relate to ways in which viewers experience and "see" film, television, and digital media. Letter grading.

223. Computer Applications for Film Study. (4) Survey of computer applications relevant to film study, principally computer-vidoeicdisc systems and image capture technology.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM229.) Lecture, two hours; seminar, four to six hours. Limited to junior or senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in the collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM129.

C242. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on experience with software tools for digital image and video processing, with an emphasis on the creation and manipulation of image and video data. Topics include digital image capture, image processing, computer animation, and computer graphics. Written and verbal communication skills will be emphasized. Credit will be granted for either course C242 or CM242.

C244. Interactive Multimedia Authoring. (4-4-4) Lecture, four hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its role as a structure for analysis and synthesis of media. Students develop a project that utilizes tools and techniques of interactive multimedia to address a social, political, or cultural issue. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


246. Issues in Electronic Culture. (6) Discussion, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores impact of new digital technologies on contemporary culture and aesthetics. Students do laboratory work and create new digital media works with advanced software tools and techniques in process-oriented, creative workshop environment. May be repeated once for credit. Concurrently scheduled with course C148. Letter grading.

249. Digital Revolution. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. Comprehensive survey to introduce students to emerging digital technologies, resulting new media, and their artistic, economic, and social implications. Topics include digital editing, digital previsualization, multimedia, World Wide Web, interactive television, and virtual reality.

268. Seminar: Short Film. (4) Seminar, two hours; discussion, two hours. Designed for graduate students. Study of the craft of short film from its conception to production. Emphasis on theoretical and technical issues of the medium. Students complete a short film project under the supervision of a faculty advisor. Credit will be granted for either course C268 or CM268.

270. Seminar: Narrative Studies. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of narratives and narrative structure and the role of narrative in analysis of film forms. S/U or letter grading.

274A. Feature Film Development I, II, III. (4-4-4) Lecture, three hours. Course 274A is required for all students. Course 274B is required for students who have completed course 274A. Course 274C is required for students who have completed course 274A and 274B. Students are expected to contribute to the development of an original film project. Concurrently scheduled with course 274A. Letter grading.


278A-278B-278C. Feature Film Development I, II, III. (4-4-4) Lecture, three hours. Course 278A is required for students who have completed course 278A. Course 278B is required for students who have completed course 278A and 278B. Course 278C is required for students who have completed course 278A, 278B, and 278C. Students are expected to contribute to the development of an original film project. Concurrently scheduled with course 278A. Letter grading.

279B. Strategy. (4) Lecture, three hours. Course 279B is not required for 279C. Key insights into financing and distribution of independent or "specialty" films. Topics include film finance, production, marketing, distribution, agents, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.

280A. Current Business Practices in Film and Television. (4) Discussion, three hours. Requires prerequisite course C247. Designed for graduate students. Examination of current status of financing/production/distribution agreements, union agreements, music, copyright, etc., necessary to understand the independent film and television industry. S/U or letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is not required to 289B. Examination of business realities of industry, with focus on techniques for analyzing financing, production, marketing, distribution, and overcoming obstacles to achieving results as producer, writer, or director. Assignments designed to assist students in articulating and achieving their goals and to help them effectively transition from classroom to their careers in entertainment industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not required to 289C. Key insights into financing and distribution of independent or "specialty" films. Topics include film finance, production, marketing, distribution, agents, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.

290A. Research and Development I. (9) Seminar, three hours. Forum for brainstorming, strategy sessions and mock story meetings with instructor, students, and various industry guests. Development of one story idea for thesis project. S/U or letter grading.

290B. Research and Development II. (4) Seminar, three hours. Forum for research and development of mock story meetings. Students must make concrete weekly progress on thesis project and adapt strategy based on feedback received. Development of marketing and business strategies for story idea set up in course 290A. S/U or letter grading.

290C. Research and Development III. (4) Seminar, three hours. Final stage of thesis preparation for evaluation. Guidance provided by instructor on how to effectively present selected project. Requirements include industry-related book reports, script analysis, pitching selected concept, weekly research to understand marketplace, accumulation and updating of data, and justification for potential "buyers" comprised of industry professionals. S/U or letter grading.

291A. Studies versus Independents: Navigation Process. (4) Lecture, three hours. Tools necessary for producer to navigate Hollywood entertainment industry. Topics discussed through lectures and guest speakers include impact of difficulty to navigate relationship between art and commerce in craft of filmmaking, rapid advance of new technologies, diverse new means of building finance capital for emerging producing entities, and what future may hold for truly independent filmmaker. S/U or letter grading.
C416. Intermediate Cinematography. (4) (Formerly numbered 416.) Lecture, two hours; laboratory, four hours. Requisite: 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 a stage or in an exterior, screenings of scenes, and discussion at learning to master the lighting to create an appropriate mood or atmosphere of a premeditated scene recorded on a film or through an 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; discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. Concurrently scheduled with course C120. Letter grading.

C420. Digital Cinematography. (4) Formerly numbered 420.) Lecture, three hours; laboratory, two hours. Advanced study of principles of digital cinematography, with emphasis on electronic exposure control, lighting, formats, cameras, and lenses. Concurrently scheduled with course C120. Letter grading.

423A. Direction of Actors for Film and Television. (4) Lecture, four hours; workshop. Preparation: first film project. Limited to graduate film and television students. Required of all production majors desiring to be actors and directors. Emphasis on understanding the roles of various acting and directing skills in the total production process. Concurrently scheduled with course C168. Letter grading.

423B. Advanced Direction of Actors for Film and Television. (4) Studio workshop, six hours. Requisite: course 423A. Limited to graduate film and television students. Advanced study and practice of directing actors in the performance of original and learned material. Emphasis on eliciting best possible performance from the actor. May be repeated twice for credit.

429A. Design for Film and Television. (4) Lecture, three hours; laboratory, four hours. Requisite: course 429A. Limited to graduate film and television students. Advanced study and practice of design and visual organization in film and television. Emphasis on a clear understanding of the interrelated disciplines in a professional production process. Concurrently scheduled with course C120. Letter grading.

451. Advanced Design for Film and Television. (4) Laboratory, to be arranged. Limited to graduate film and television students. Advanced study and practice of design and visual organization in film and television. Emphasis on a clear understanding of the interrelated disciplines in a professional production process. Concurrently scheduled with course C120. Letter grading.

458. Technical Seminar. (4) Discussion, three hours; laboratory, four hours. Limited to graduate film and television students. Advanced problems in the field of documentary and special feature programs, with emphasis on research and preparation. May be repeated for a maximum of 16 units.

465. Narrative Television Workshop. (8) Lecture, eight hours. Laboratory, four hours. May be repeated for a maximum of 16 units.

478. Video II. (8) Lecture, eight hours; laboratory, to be arranged. Limited to graduate film and television students. Study of basic techniques of video production, including completion of one or more projects. Letter grading.

482A-482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; laboratory, to be arranged. Limited to graduate film and television students. Advanced study and practice of directing actors in the performance of an original script. Concurrently scheduled with course C168. Letter grading.

485A-485B. Advanced Writing for Short Film and Television. (4) Lecture, three hours; laboratory, four hours. Limited to graduate film and television students. Advanced study and practice of writing original scripts for film and television. Concurrently scheduled with course C118. Letter grading.


488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisites: courses 181A, 181B, 181C. Organization and integration of various creative arts used in animation and interactive media to form complete study of a selected interactive project. May be repeated for a maximum of 16 units.

489A-489B. Advanced Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: course 488A. Organization and integration of various creative arts used in animation and interactive media to form complete study of a selected interactive project. May be repeated for a maximum of 16 units.

496. Practice of Teaching Film and Television. (2) Lecture, three hours; laboratory, four hours. Limited to M.F.A. production program students. Preparation for the teaching of film and television, including selection of course content, preparing course assignments, and evaluation of student work. Concurrently scheduled with course C168. Letter grading.

C470A. Introduction to Digital Effects. (4) Lecture, three hours; laboratory, to be arranged. Introduction to digital effects production, with specific focus on motion graphics, compositing, effects processing, and title sequences. Concurrently scheduled with course C170A. 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 planning and production of a group short film. Letter grading.

476. Video I. (8) Discussion, three hours; laboratory, to be arranged. Designed for graduate students. Study of basic techniques of television and video production, including completion of one or more projects. Letter grading.

482A-482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; laboratory, to be arranged. Requisites: courses 181A, 181B, 181C. Advanced study and practice of directing actors in the performance of an original script. Concurrently scheduled with course C168. Letter grading.

485A-485B. Advanced Writing for Short Film and Television. (4) Lecture, three hours; laboratory, four hours. Limited to graduate film and television students. Advanced study and practice of writing original scripts for film and television. Concurrently scheduled with course C118. Letter grading.


488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisites: courses 181A, 181B, 181C. Organization and integration of various creative arts used in animation and interactive media to form complete study of a selective interactive animation project. May be repeated for a maximum of 16 units.

489A-489B. Advanced Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: course 488A. Organization and integration of various creative arts used in animation and interactive media to form complete study of a selected interactive topic. May be repeated for a maximum of 16 units.

489A. Computer Animation in Film and Video. (4 to 8) Lecture, six hours; laboratory, four hours; other, to be arranged. Preparation: a completed animated film. Requisites: courses 181A, 181C. Use of computer animation. In and supervised production of computer animation. May be repeated for a maximum of 16 units.

489B. Production in Computer Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours. Requisite: course 489A. Instruction in creation, preparation, and production of a complete and original computer animation film or tape. May be repeated for a maximum of 16 units.

496. Practice of Teaching Film and Television. (2) Discussion. Required once of all teaching assistants or associates in department. Preparation and presentation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to the teaching experience. May not be applied toward M.A., M.F.A., or Ph.D. May be repeated. S/U 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.

Course List

Afrikaans (Germanic Languages)
40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Prepartheid to Postapartheid Era, in English Translation

Ancient Near East (Near Eastern Languages)
150A. Survey of Ancient Near Eastern Literatures in English: Mesopotamia
150B. Survey of Ancient Near Eastern Literatures in English: Egypt

Arabic (Near Eastern Languages)
150. Classical Arabic Literature in English
151. Modern Arabic Literature in English

Armenian (Near Eastern Languages)
150A-150B. Survey of Armenian Literature in English

Asian (Asian Languages)
161. Buddhist Literature in Translation

Bulgarian (Slavic Languages)
154. Survey of Bulgarian Literature

Chinese (Asian Languages)
C150A. Lyrical Traditions

Comparative Literature

All undergraduate courses

Czech (Slavic Languages)
155. Survey of Czech Literature from Middle Ages to the Present

Dutch (Germanic Languages)
113. Modern Dutch and Flemish Literature in Translation

English
108A-108B. English Bible as Literature
108C. English Bible as Literature: Special Topics

French (French and Francophone Studies)
164. French and Francophone Novel
165. Topics in French Literature in Translation

German (Germanic Languages)
50A. Great Works of German Literature in Translation: Medieval Period through Classicism
50B. Great Works of German Literature in Translation: Romanticism to the Present
106. The Faust Tradition from the Renaissance to the Modern Age

FOREIGN LITERATURE IN TRANSLATION

Related Courses

Communication Studies
187. Ethical and Policy Issues in Institutions of Mass Communication

Design I Media Arts
153A. Design for Video

English
118. Film and Literature

Italian
46. Italian Cinema and Culture in English
121. Literature and Film

M108. Love and Sex in German Literary Tradition
112. Jewish Writing and Thought in German Culture from 1755 to the Present
116. Special Topics in Modern Literature and Culture

Hungarian (Slavic Languages)
121. Survey of Hungarian Literature in Translation

Irish (Near Eastern Languages)
150A-150B. Survey of Persian Literature in English

Italian
42A-42B. Italy through the Ages in English
50A-50B. Masterpieces of Italian Literature in English
102A-102B-102C. Italian Cultural Experience in English
110. Dante in English
121. Literature and Film

Italian Theater
140. Italian Novella from Boccaccio to Basile
150. Modern Fiction in Translation

Jewish Studies (Near Eastern Languages)
M150A-150B. Hebrew Literature in English
M151A-151B. Modern Jewish Literature in English

Korean (Asian Languages)
150. Korean Literature in Translation: Classical
151. Korean Literature in Translation: Modern

Old Norse Studies (Germanic Languages)
40. Heroic Journey in Northern Myth, Legend, and Epic

Polish (Slavic Languages)
152A-152B-152C. Survey of Polish Literature

Portuguese (Spanish and Portuguese)
40A-40B. Portuguese, Brazilian, and African Literature in Translation

Romanian (Slavic Languages)
152. Survey of Romanian Literature

Russian (Slavic Languages)
25. Russian Novel in Translation
25W. Russian Novel in Translation
118. Russian Literature of Middle Ages and Enlightenment
119. Golden Age and the Great Realists
120. Literature and Revolution
124C-124T. Studies in Russian Literature
125. Russian Novel in Its European Setting
126. Survey of Russian Drama
127. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore

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Scandinavian
50. Introduction to Scandinavian Literatures and Cultures
50W. Introduction to Scandinavian Literatures and Cultures
141. Backgrounds of Scandinavian Literature
142. Scandinavian Literature of the 19th Century
143. Scandinavian Literature of the 20th Century
C144. Henrik Ibsen on World Stage
Scope and Objectives

The UCLA French and Francophone Studies Department 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 Francophone literature and culture. All three plans lead to the Bachelor of Arts degree and subsequently to graduate studies in French.

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 major 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.

Transfer Students

Transfer applicants to the French majors with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course. Students in Plan III must also complete an introduction to linguistics course.

The Majors

Three plans are offered by the department:

Plan I: French/ Francophone Studies in Literature and Culture

Plan II: Interdisciplinary French/ Francophone Studies

Plan III: French and Linguistics

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No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

French B.A./ French and Linguistics B.A.

Preparation for the Majors

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. Students in Plan III must also take Linguistics 20.

Transfer Students

Transfer applicants to the French majors with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course. Students in Plan III must also complete an 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 Majors

Three plans are offered by the department:

Plan I: French/ Francophone Studies in Literature and Culture

Plan II: Interdisciplinary French/ Francophone Studies

Plan III: French and Linguistics

In addition to the normal preparation for the major, students are required to complete the sixth term of work in one other foreign language or the third term in each of two other foreign languages. Linguistics 20 is required as preparation for the major. Required: Twelve upper division courses, including French 100, 101, 102; two courses from 114A, 114B, 114C; at least six courses in French and Francophone literature and/or culture selected from upper division offerings in the department in language, civilization, literature, or the arts. Two upper division elective courses from outside the department may be substituted in the major program with consent of the undergraduate adviser.

Plan II: Interdisciplinary French/ Francophone Studies

Plan II, with emphasis on French and Francophone culture, leads to the Bachelor of Arts in French and is a core program in French allowing for individual selection of relevant courses in related fields such as humanities, social sciences, women’s studies, and linguistics. Required: Thirteen upper division courses, including French 100, 101, 102; two courses from 114A, 114B, 114C; at least two courses in French and Francophone literature; one additional elective course normally selected from upper division offerings in the department in language, civilization, literature, or the arts; five upper division elective courses in fields relevant to French and Francophone studies to be selected in or outside the department in consultation with the undergraduate adviser.

Plan III: French and Linguistics

Plan III leads to the Bachelor of Arts in French and Linguistics. In addition to the normal preparation for the major, students are required to complete the sixth term of work in one other foreign language or the third term in each of two other foreign languages. Linguistics 20 is required as preparation for the major. Required: Twelve upper division courses, including French 100, 101, 102; two courses from 105, 107, 108A, 108B, 109; two courses from 114A, 114B, 114C; Linguistics 103, 110, 120A, 120B, and 165A or 165B.

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 prepar-
ing for the major and if they demonstrate the requisite attainment in French 100, 101, or 102, 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 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 any of the French majors. 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.

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 (8 units): French 6 or equivalent and one course from 12, 14, or 15.

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. All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in French and Francophone Studies.

French Lower Division Courses

1. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with a grade of C– or better.
2. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with a grade of C– or better.
3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 2 with a grade of C– or better.


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108A-108B. Advanced Practical Translation. (4-4) Lecture, three hours. P/NP or letter grading:

108B. Lecture, three hours. Requisite: course 102 or 108A. Translation of literary and sociocultural texts, including editorial, colloquial, film subtexts, Comparative stylistics of translation. P/NP or letter grading.


110. Culture of Business in France. (4) Lecture, three hours. Requisite: course 100 or 109. Cultural issues in business French, including mentalities, practices and customs, marketing, and advertising strategies. P/NP or letter grading.

112. Medieval Foundations of European Civilization. (4) Lecture, three hours; discussion/film screenings, two hours. Medieval texts, culture, social structure, and political history as they lay bases of European modernity. P/NP or letter grading.

114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including examples of epic (La Chanson de Roland), romance (Châtel de Troyes' Yvain), and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Balbais, Marguerite de Navarre, and Montaigne). 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 the Enlightenment, including those by Racine, Pascal, La Fayette, La Fontaine, Lillo, Diderot, Voltaire, and Rousseau. P/NP or letter grading.


115. Medieval French Literature. (4) (Formerly numbered 115A.) Lecture, three hours. Study of medieval French literature, including lyric poetry and narrative romance, history of medieval warfare, comedy, and class structures. May be repeated for credit with topic change. P/NP or letter grading.

116. Renaissance French Literature. (4) (Formerly numbered 116A.) Lecture, three hours. Study of Renaissance French literature, including la Pêlade and 16th-century poetry, linguistic and poetic revolution, novel and early prose, and late humanism. May be repeated for credit with topic change. P/NP or letter grading.

117. 17th-Century French Literature. (4) (Formerly numbered 117A.) Lecture, three hours. Study of 17th-century French literature, including theater, philosophers, modern politics, culture, economic, social, religious, and courtly aspects. May be repeated for credit with topic change. P/NP or letter grading.

118. 18th-Century French Literature. (4) (Formerly numbered 118A.) Lecture, three hours. Study of 18th-century French literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.

119. 19th-Century French Literature. (4) (Formerly numbered 119A.) Lecture, three hours. Study of 19th-century French literature, including Romanticism, genre, love, symbolism, and genres and trends from 1885 through World War I. May be repeated for credit with topic change. P/NP or letter grading.

120. 20th-Century French Literature. (4) (Formerly numbered 120A.) Lecture, three hours. Study of 20th-century French literature, including early 20th-century writers, surrealism, literature from 1915 to 1945, post-World War II literature, existentialism, new novel, theater, and poetry. May be repeated for credit with topic change. P/NP or letter grading.

121. Francophone Literatures and Cultures. (4) (Formerly numbered 121A.) Lecture, three hours. Study of Francophone literatures and cultures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, and sub-Saharan Africa, immigrant narratives, and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.

130. Contemporary French and Francophone Cultures. (4) Lecture, three hours. Requisites: courses 6, 12. Study of contemporary France and Francophone world (Africa, Caribbean, Quebec), government, institutions, and cultural, economic, social, and political issues. May be repeated for credit with topic change. Letter grading.


137. French and Francophone Intellectual History. (4) (Formerly numbered 157.) Lecture, three hours. 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) (Formerly numbered 157.) Lecture, three hours. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major concepts in contemporary French thought, with attention to its influence on and application to literary and nonliterary contexts. May be repeated for credit with topic change. P/NP or letter grading.

140. Women's Studies in French Literature. (4) (Formerly numbered 260A.) Lecture, three hours. Exploration of women in French literature as author, character, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

141. French Cinema. (4) Lecture, three hours. Study of French cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

142. Francophone Cinema. (4) Lecture, three hours. Study of Francophone (Africa, Caribbean, postcolonial communities in France) cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

155. Studies in 20th-Century Literature. (4) May be repeated once for credit with consent of major advisor. P/NP or letter grading.

160. Francophone Cultures, in English. (4) Lecture, three hours. Study of Francophone Africa, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, postcolonialism, and the theories such as sociology and structuralism, the city, revolution, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Themes include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Ross, Rey Chow, Virilio. S/U or letter grading.

199. Directed Research or Senior Project in French. (2 to 4) Tutorial, three hours. Limited to juniors or seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Techniques of Literary Analysis. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics may include European and non-European disciplines and theories such as sociology and structuralism, the city, revolution, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Themes include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Ross, Rey Chow, Virilio. S/U or letter grading.

203. Contemporary Francophone Literature. (4) (Formerly numbered C203.) Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, postcolonialism, and the theories such as sociology and structuralism, the city, revolution, avant-garde strategies, media, diaspora during postwar modernization, Algerian War, May 68, and beyond. Themes include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Ross, Rey Chow, Virilio. S/U or letter grading.

204. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to genre of autobiography in literatures in French across centuries. Topics include early modern approaches to self-writing, Rousseau and emergence of modern self, women's autobiography in France and Francophone world. Themes may include Georges Gudser, Philippe Lejeune, Paul de Man, Jacques Derrida, Helene Cixous, Michel Foucault, Pierre Bourdieu, Toril Moi. S/U or letter grading.

205A-205B. Studies in Cinema and Literature. (4-4) Lecture, three hours. Exploration of selected topics in French and Francophone cinema and literature. S/U or letter grading.

206A-206B. Studies in Generative Anthropology. (4-4) 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.

207. Studies in History of Ideas. (4) (Formerly numbered 260A-260B.) Seminar, three hours. Particular problems in French literature and ideas. May be repeated for credit. S/U or letter grading.

208. Studies in Literary Criticism. (4) Seminar, three hours. Readings in literary criticism, theory, and literature from any period of French literature. May be repeated for credit. S/U or letter grading.
209. Studies in Literary Genre. (4) Seminar, three hours. Advanced research and study of literary genres such as poetry, drama, fiction, autobiography, or performance and of theory of these genres. S/U or letter grading.


215A-215B. Medieval Literature. (4-4) Lecture, three hours. Requisite: course 214. Development of a vernacular culture in the Middle Ages. Exploration of social functions of texts designated as "literary" by modernity as part of social, economic, and political evolutions in which those texts played key roles. Letter grading. 215A. Medieval Subject; 215B. Narrative Types.


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.

225. 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.

M299. Research Resources for European Studies. (2) (Same as German M299, Information Studies M299, Italian M299, Slavic M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

370. Teaching French in Secondary School. (4) Lecture, three hours; discussion, one hour. Required of all candidates for general secondary instructional credential in French.

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 the University. May be repeated for credit. S/U grading.

495. Teaching French at College Level. (4) Seminar, three hours; discussion, one hour. Designed for graduate students. Theory and practice of language teaching. S/U grading.

598. Research for and Preparation of M.A. Thesis. (2 to 4) Maximum of 4 units may be applied toward M.A. degree requirements. S/U grading.


FRESHMAN GENERAL EDUCATION CLUSTERS
College of Letters and Science
UCLA
A265 Murphy Hall
Box 951571
Los Angeles, CA 90095-1571
(310) 794-5040
http://www.college.ucla.edu/ge/clusters/

Scope and Objectives
Available to entering freshmen only, cluster courses are an option for satisfying general education requirements. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or intercultural 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 nearly a third of their general education course requirements, satisfy their general education seminar requirement, and fulfill the Writing II requirement. Cluster students enjoy priority enrollment in an English Composition 3 class during Fall or Winter Quarter of their cluster year. They are eligible for three quarters of honors credit, with the Spring Quarter seminar providing Honors Collegium credit.

For the current cluster course offerings and general education credit, refer to http://www.college.ucla.edu/ge/clusters/

General Education Clusters
Lower Division Courses
M1A-M1B-M1CW. Global Environment. (5-5-5) (Same as Environment M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Letter grading. M1A-M1B. Multi-disciplinary Perspective I, II, 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. (Formerly numbered M1C.) Seminar, three hours. Advanced research and study of literary as well as current issues in literary and cultural category among two or more groups and exploration of ways in which race has shaped understanding of American civilization. S/U or letter grading.

20A-20B-20CW. Intercultural Dynamics in American Culture and Society. (5-5-5) Course 20A is enforced requisite to 20B, which is enforced requisite to 20CW. 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 civilization. 20CW. Special Topics. (Formerly numbered 20C.) Seminar, three hours. Enforced requisites: course 20B, and English Composition 3 or 3H. Not open for credit to students with credit for former course M1C. Examination of specialized environmental topics such as air and water, global warming, and feeding Earth’s population. Satisfies Writing II requirement.

21A-21B-21CW. History of Social Thought. (5-5-5) Course 21A is enforced requisite to 21B, which is enforced requisite to 21CW. Letter grading. 21A-21B. Lecture, three hours; discussion, two hours. Introduction to key issues in humanities and social sciences through reading of prominent social theories of past four centuries. Consideration of writers from Rousseau and Wollstonecraft to Foucault and Beauvoir in historical context and from perspectives of academic specialties for which their work is fundamental. 21CW. Special Topics. (Formerly numbered 21C.) Seminar, three hours. Enforced requisites: course 21B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 20C. Consideration of how experience, debates, and issues of race are represented and understood in historical, legal, cinematic, and literary contexts. Satisfies Writing II requirement.

22A-22B-22CW. Toward a World Economy: Perils and Promise of Globalization. (5-5-5) Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Letter grading. 22A-22B. Lecture, three hours; discussion, two hours. Exploration of causes and mechanisms of globalization as well as its consequences. Critical examination of globalization theories, international institutions of trade, finance, governance, and overall impact of globalization on human society. 22CW. Special Topics. (Formerly numbered 22C.) Seminar, three hours. Enforced requisites: course 22B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 22C. Topics may include global governance, development, and health. Satisfies Writing II requirement.
23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5-5-5) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Open only 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. (Formerly numbered 23D) Seminar, three hours. Enforced requisites: course 23B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 23C. 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 the U.S. (5-5-5) (Formerly numbered 24A-24B-24CW.) (Same as Labor and Workplace Studies 24B-24CW.) (Same as Labor and Workplace Studies 24B-24CW.) (Same as Labor and Workplace Studies 24B-24CW.) (Same as Labor and Workplace Studies 24B-24CW.) Lecture, three hours; discussion, two hours. Enforced requisites: course 24B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 24C. Topics include labor history, gender, race, and workplace. Satisfies Writing II requirement.

M25A-M25B-M25CW. Politics, Society, and Urban Culture in East Asia. (5-5-5) Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Comprehensive exploration of historical evolution of popular East Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminar, three hours. Enforced requisites: course 25B, and English Composition 3 or 3H. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

25A-25B-25CW. Politics, Society, and Urban Culture in East Asia. (5-5-5) Course 25A is enforced requisite to 25B, which is enforced requisite to 25CW. Letter grading. 25A-25B. Lecture, three hours; discussion, two hours. Comprehensive exploration of historical evolution of popular East Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminar, three hours. Enforced requisites: course 25B, and English Composition 3 or 3H. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

60A-60B-60CW. The U.S., 1963 to 1974: Politics, Society, and Culture. (5-5-5) Course 60A is enforced requisite to 60B, which is enforced requisite to 60CW. Letter grading. 60A. Lecture, three hours; discussion, two hours. Enforced requisites: course 60B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 60C. In-depth examination of political and cultural issues affecting U.S. society from 1963 to 1974. Satisfies Writing II requirement.

70A-70B. Evolution of Cosmos and Life. (5 each) Course 70A is required to 70B, which is enforced requisite to 70CW or 70DW. Letter grading. 70A-70B. Lecture, three hours; discussion, two hours. Use of concept of evolution, as it applies to biologial organisms. Earth, solar system, and the universe itself, to introduce students to both the life and physical sciences. Examination of evolution of the universe, galaxy, solar system, and Earth in course 70A; focus on evolution of life in course 70B. 70CW. Special Topics in Life Sciences. (Formerly numbered 70C.) Seminar, three hours. Enforced requisites: course 70B, and English Composition 3 or 3H. Not open for credit to students with credit for course 70CW or former course 70C. Examination in depth of various issues of evolution in cosmos from physical sciences perspective. Satisfies Writing II requirement.

71A-71B-71CW. Biotechnology and Society. (5-5-5) Course 71A is enforced requisite to 71B, which is enforced requisite to 71CW. Letter grading. 71A-71B. 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. 71CW. Special Topics. Seminar, three hours. Enforced requisites: course 71B, and English Composition 3 or 3H. Topics include in-depth examination of special topics and human genetics, biowarfare and biodefense, sex and biotechnology. Satisfies Writing II requirement.

80A-80B-80CW. Frontiers in Human Aging: Biomedical, Social, and Policy Perspectives. (5-5-5) Course 80A is required to 80B, which is enforced requisite to 80CW. Letter grading. 80A-80B. Lecture, three hours; discussion, two hours. Examination of aging process from vantage points of multiple disciplines, including biology, psychology, sociological, ethical, and public policy. Study of biomedical and biological aging and psychological, social, and ethical implications of phenomena. 80CW. Special Topics. (Formerly numbered 80D.) Seminar, three hours. Enforced requisites: course 80B, and English Composition 3 or 3H. Not open for credit to students with credit for former course 80C. In-depth examination of gender, anti-aging, aging, cancer, and aging of brain. Satisfies Writing II requirement.

97A-97Z. Cluster Colloquium. (1 each) Seminar, one hour; reading period, two hours. Designed for students who have completed a GE cluster. Study, through small group discussion, of selected topics related to a cluster theme or topic. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. PINP grading.

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 neighborhoods within Los Angeles. Others are regional, such as determining the best locations for nature reserves in California. Many are global, such as the study of greenhouse gases and how they affect climates, culture and resource issues in developing countries, and the impact of information technologies on people in different places.

The work of geographers often takes them out of the classroom into the field to collect information on topics that range from the settlement of new immigrants to the distribution of endangered species, the erosion of shorelines, and the location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as 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 archives, probing documentary sources on human interaction with the natural world and how that world is imagined.

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 government 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.

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 M40. All courses 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, one people and ecosystems 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: Twelve upper division geography courses taken for a letter grade which must be distributed as follows: (1) natural systems core — two courses from 100, 101, 103, 104, 105, 108, 111, 112; (2) Human systems core — two courses from 118, 133, 134, 140, 142, 148, 150, M153; (3) Environmental studies cluster — five courses from 106, M107, 109, 110, 113, M115, 116, 120, 121, 122, 123, 124, 125, 126, M128, 129, 131, 132, 135, 136, M137; (4) Procedures — two courses (8 units) from 100A (2 units), 105A (2 units), 162, 163, 167 (6 units), 168, 169, 170, M171, 172; and (5) Regions — one course from 122, 135, 136, M137, 152, 156, 180, 181, 182A, 183, 184, 185, 186, 187.

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 Geography 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 GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s). Contact the undergraduate advising office for further information.

Computing Specialization

 Majors in Geography and Geography/Environmental Studies 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, 30, 60, and Mathematics 61 with a minimum grade of C in each course (Mathematics 32A and 32B are also highly recommended), and (3) completing at least two courses from Geography 104, 167, 168, M171. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Geography Minor

The Geography minor is designed for students who wish to deepen and/or broaden their major program of study with a distinctive yet flexible program of courses encompassing the relationship between environment and society. The minor allows students to develop a coherent strategy for understanding and explaining the manner in which people and the Earth interact. Students have the opportunity to explore the origins, development, morphology, and processes of landscapes inherited from nature, as well as those institutions and cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

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. No more than 8 units may be applied toward both this minor and a major or minor in another department or program, 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. All minor courses must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geography/Environmental Studies Minor

The Geography/Environmental Studies minor is intended for students interested in environmental issues and emphasizes a systems approach to gaining a causal understanding of major environmental problems facing our society and the world at large. The uniqueness of the minor lies in its geographical perspective on the impact, at various geographical scales, of human activity on natural systems and on the implications of global environmental change on local, regional, and global human systems.

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): Geography 5 and one course from 1, 2, 3, 4, or 6. It is recommended that students take these courses before attempting upper division courses.

Required Upper Division Courses (20 units): Three courses from the environmental studies cluster specified within the major and two geography courses from outside the environmental studies cluster.

No more than 8 units may be applied toward both this minor and a major or minor in another department or program, 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.

All minor courses must be taken for a letter grade. 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://www.gdnet.ucla.edu. 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 Geography offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Geography.

Geography

Lower Division Courses

1. Earth’s Physical Environment. (5) Lecture, three hours; laboratory, two hours. Study of Earth’s physical environment, with particular reference to nature and distribution of landforms and climate and their significance to people. P/NP or letter grading.


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. Economic geography explores spatial distribution of all forms of human productive activity at number of geographical scales — local, regional, national, and global. Key theme is impact of increasingly powerful global economic forces on organization of production. P/NP or letter grading.

5. People and 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. Insights into global diversity through analysis of environmental, social, economic, and historical factors that define major world regions. Emphasis on contemporary issues that make these regions significant in current world affairs and on their histories and past and present connections with other regions. Examination of criteria used to construct regions and conflicts that occur over choices of how best to divide world into discrete and identifiable geographic areas. P/NP or letter grading.

M40. Introduction to Statistical Methods for Social Sciences. (5) (Same as Anthropology M80, Sociology M18, and Statistics M121.) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for Statistics 10, 11, or 13 (or former Economics M40, Organismic Biology M22, Statistics M11, or M13). Elements of statistical analysis for social sciences. Presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions, statistical inference including principles of estimation and tests of hypotheses, introduction to regression and correlation. 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

100. Principles of Geomorphology. (4) Lecture, three hours; reading period, one hour. Requisite: course 1. Recommended: course 100A. Study of processes that shape the world’s landforms, with emphasis on weathering, mass movement and fluvial erosion, transport, deposition, energy and material transfers; space and time considerations.

100A. Principles of Geomorphology: Field and Laboratory. (2) Laboratory/workshop, six hours. Corequisite: course 100. Field and laboratory investigations of weathering, mass movement, fluvial erosion, transport, deposition, related geomorphic phenomena. 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, emphasizing past and present changes, hydrodynamic processes, sediment transfers, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, seashells, and coral reefs, together with coastal zone management. P/NP or letter grading.

101A. Coastal Geomorphology: Field and Laboratory. (2) Laboratory/workshop, six hours. Corequisite: course 101. Field and laboratory investigations of coastal landforms, emphasizing past and present changes, hydrodynamic processes, sediment transfers, and such features as beaches, estuaries, lagoons, deltas, wetlands, dunes, and seashells, together with coastal zone management.

102. Tropical Climatology. (4) Lecture, three hours. In-depth exploration of development of tropical climate, with special reference to hurricanes, ENSO, and monsoons. Examination of human interaction with tropical climatic systems and human-induced climate changes. Use of climatological information to foster sound environmental management of climate-related resources in tropical areas. 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 the last three million years, including evidence for glacial and interglacial oscillations, historic changes, paleogeographic reconstruction, external and internal forcing mechanisms, and human implications. P/NP or letter grading.

104. Climatology. (4) Lecture, three hours; reading period, one hour. Recommended for juniors/seniors. Examination of the many relationships between climate and the world of man. Application of basic energy budget concepts to the microclimate of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.


105A. Hydrology: Field and Laboratory. (2) Laboratory/workshop, six hours. Corequisite: course 105. Field and laboratory investigations into role of water in geographic systems: hydrologic phenomena in relation to climate, landforms, soils, vegetation, and cultural processes and impacts on the landscape. Students solve applied hydrology problems in laboratory and make hydrologic measurements in the field.

106. Applied Climatology: Physical Principles and Practice. (4) Lecture, three hours; reading period, one hour. Recommended for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

M107. Soil and Water Conservation. (4) (Formerly numbered 107.) (Same as Environment 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 agriculture, forest engineering, mining, and other rural uses of land. P/NP or letter grading.

108. World Vegetation. (4) Lecture, three hours; reading period, one hour. Recommended for juniors/seniors. Characteristics, distribution, environmental and cultural relationships of world’s major vegetation patterns. P/NP or letter grading.

109. Human Impact on Biophysical Environment: What Science Has Learned. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

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 the planet to maintain a growing population. Introduction and evaluation of basic demographic processes in context of food production, energy use, and environmental degradation. Discussion of major debates about use of resources 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; reading period, one hour; field trips. Requisites: course 102. Study of complex relationships among organisms. Evaluation of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interactions, succession, disturbances, and long-term environmental change. P/NP or letter grading.

151. Cities and Social Difference. (4) Lecture; three hours; discussion, one hour. City landscapes embody best and worst of U.S. society: diversity and poverty, opportunity and violence. Study of urban spaces, social differences, inequality, and conflicts over uses and meanings of city space. Social urban geography. 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.

153. Logs of Page 1 and Their Lessons for Our Own Future. (5) (Same as Honors College M153.) Lecture, two hours; discussion, one hour. Examination of several sets of preindustrial societies that met varying fates (Polynesians on Pacific islands, seafarers of early U.S., and Vikings on North Atlantic islands), as background to examination of how some modern societies are coping or failing to cope with their environmental impacts. 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 the Los Angeles metropolitan area. P/NP or letter grading.


159A-159E. Fieldwork in Geography. (4 each) Discussion, three hours; reading period, one hour. Preparation: completion of three courses in a concentration. Limited to seniors. Seminar course in which 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.

163. Field Analysis in Biogeography. (4) Fieldwork, eight hours. Requisites: courses 2, 5, 108, 112. Examination of field procedures and intellectual concepts used in observation, measurement, analysis, and interpretation of phenomena pertinent to biogeography and interrelated human influences. P/NP or letter grading.

166. Images of Earth: The World from Above. (4) Lecture, three hours. Use of maps, charts, diagrams, and other images to show how Earth has been represented through the ages, how they have been influenced by current ideas and, in turn, how they have themselves influenced the course of events. P/NP or letter grading.


168. Introduction to Geographic Information Systems. (4) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Introduction to basic geographic information systems (GIS) concepts and spatial analysis. Data structures, topology, and attribute information. Laboratory exercises use database query, manipulation, and spatial analysis to address "real world" problems. P/NP or letter grading.

169. Satellite Remote Sensing and Imaging Geographic Information Systems. (4) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Introduction to remote-sensing-derived data and ground-truthing field of environmental monitoring from space. Application of Landsat, radar, Global Positioning System (GPS), and Earth Observation System satellites to land surface change, oceanography, meteorology, and environmental monitoring. Introduction to digital image-processing and imaging geographic information system (GIS) software. P/NP or letter grading.


172. Advanced Remote Sensing and Data Processing. (4) Lecture, three hours; laboratory, one hour. Requisite: course 169. Digital processing methods for manipulating and analyzing image data. Topics include spatial statistics, geometric and radiometric correction, classification, image enhancement and filtering, and change detection schemes. Reinforcement of procedures presented in lecture with laboratory exercises and student project. 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 the cultural and historical development of Middle America and the contemporary economic and cultural geography of Mexico and countries of Central America and the 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 the historical development of Spanish South America and the contemporary economic and cultural geography of the 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 the historical development of Portuguese South America and the 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) (Formerly numbered 191.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Regional synthesis with varying emphasis on the people of South or Southeast Asia in the physical, biotic, and cultural environment and its dynamic transformation. P/NP or letter grading.

185. South and Southeast Asia. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Regional synthesis with varying emphasis on the people of South or Southeast Asia in the physical, biotic, and cultural environment and its dynamic transformation. P/NP or letter grading.

186. Contemporary China. (4) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analytic study of economic, social, and political geography of the 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

194. Research Group Seminars: Geography. (2) Seminar, two hours; research group meeting, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

C194A. Research Group Seminars: Controversies in Earth System Science. (1) Seminar, two hours. Designed for undergraduate students who are part of research group. Biweekly seminar to discuss emerging issues and controversies in earth system science. Topics include oscillatory climate phenomena, biogeochemical cycling, biocomplexity, land/atmosphere interactions, paleoclimates, and human-induced environmental change. Concurrently scheduled with course C296A. P/NP grading.

195. Community or Corporate Internship in Geography. (4) (Formerly numbered 1991.) Tutorial, 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. Individual contract with supervising faculty member required. P/NP or letter grading.

198A-198B. Honors Research in Geography I, II. (4-4) (Formerly numbered 199A-199B.) Tutorial, to be arranged. Preparation: 3.25 grade-point average overall, at least five upper division geography courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of one or two faculty members. Individual contract required. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to juniors with a B average in the major or seniors.
Graduate Courses

200. History and Paradigms of Geomorphology. (4) Lecture, two hours; discussion, one hour; reading period, two hours. Preparation: two courses from 101, 103, 105, M107. Requisite: course 100. Analysis of geomorphic theories since the scientific revolution, with emphasis on catastrophism, uniformitarianism, glacial theory, isostasy, and eustasy; evolution and cyclicality, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporary milieu.

201. Coastal Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100, 101, 105, or Civil Engineering 150. Discussion of selected topics pertaining to action of running water shaping the coastal environment. May be repeated for credit.

202. Fluvial Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100 and 105, or Civil Engineering 150. Discussion of selected topics pertaining to action of snow and ice in arctic and alpine environments. May be repeated for credit.

203. Glacial Geomorphology Seminar. (4) Discussion, three hours; reading period, five hours; fieldwork. Requisites: courses 100, 103, 105. Discussion of selected topics pertaining to action of snow and ice in arctic and alpine environments. May be repeated for credit.

204A-204B-204C. Advanced Climatology. (4) Lecture, three hours; laboratory, one hour. Preparation: first year of calculus and acquaintance with Fortran IV. Requisite: course 104. Courses must be taken in sequence. Introduction to tools and concepts of environmental physics of relevance to natural and man-made landscapes. Such basic intellectual, mathematical, and computer programming tools are of special concern to physical geographers, ecologists, and architects.

205. Seminar: Climatology. (4) Discussion, three hours; reading period, one hour. Requisites: courses 204A, 204B, 204C. Selected topics. May be repeated for credit.

206. Introduction to Biophysical Modeling of Land Surface Processes. (4) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes, including ideal canopy model, radiation, heat and CO2 fluxes transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

207. Regional Climate and Terrestrial Surface Processes. (4) Seminar, three hours. Designed for graduate students. Physical concepts and basic principles of land-surface/remote-sensing 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 Biogeography: Plants. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisites: courses 108, and 110 or 116. Intensive review and analysis of biophysical and cultural factors influencing plant distributions.

212. Advanced Biogeography: Animals. (4) Lecture, two hours; discussion; one hour; reading period, one hour. Requisite: course 112. Intensive review and analysis of biophysical and cultural factors influencing animal distributions. S/U or letter grading.

213. Seminar: Biogeography. (4) Discussion, three hours; reading period, two hours. Requisite: course 208 or 212. Related research projects growing out of course 208 or 212. May be repeated for credit.

215. Quaternary Studies: Physical Aspects. (4) Discussion, 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 and space sciences. Analysis of changing physical environment of Quaternary period. May be repeated for credit.

217. Quaternary Studies: Ecological Aspects. (4) Discussion, three hours; reading period, two hours. Requisites: courses 202 or 204A, 204B, and 204C or 208 or 212 or one other appropriate graduate course in anthropology, botany, Earth and space sciences, or zoology. Analysis of ecological aspects of environmental change during Quaternary period. May be repeated for credit.

218. Advanced Medical Geography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisite: course 118. In-depth study of select-ed topics in medical geography and intense review of recent research.

223. Seminar: Humid Tropics. (4) Seminar, three hours; reading period, two hours. Designed for graduate students. Selected topics. Biophysical and cultural complexes of the humid tropics, with emphasis on problems related to human settlement and development. May be repeated for credit. S/U or letter grading.

M229. Resource-Based Development. (4) (Same as Urban Planning M234C.) Discussion, three hours. Recommended preparation: Urban Planning 234A. 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 the state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

Human Geography

230. Political Ecology. (4) Seminar, three hours; reading period, three hours. Designed for graduate students. Exploration of theoretical constructs and approaches to analyses of development and the environment associated with political ecology. Examination of relations between poverty, ecological degradation, and global restructuring. Case studies of changing production organization and ecology of land-use patterns within different and emergent economic and political contexts. S/U or letter grading.

231. Terminology and Theory in Political Econo-my: Deconstruction and Reconstruction of Approaches in Research, Writing, and Practice. (4) Discussion, three hours; reading period, three hours. Requisite for graduate students. Deconstruction of oft-used terms in intellectual discourse with goal of making assumptions more explicit, analysis more concise, and use of theory to inform practice (and vice versa) more successful. Attempt to reconstruct a more concise and useful terminology to inform theoretical inquiry and research practice. S/U or letter grading.

232. Advanced Cultural Geography. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific aspects of development of cultural landscape in different geographic environments.

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.

234. Environment and Subsistence in Indigenous Cultures. (4) Seminar, three hours. Discussion on resource management strategies and environmental issues in indigenous cultures. Topics vary from year to year.

235. Seminar: Social Geography. (4) Seminar, three hours; reading period, one hour. Process of doing social/cultural geography entails conceptualizing, designing, and reformulating critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social space and social research. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race sexuality, subjects and spatiality resistance and agency, and social difference and identity. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

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.

241. Seminar: Political Geography. (4) Discussion, three hours; reading period, two hours. Requisite: course 240. Related research projects growing out of course 240. May be repeated for credit.


244. Topics in Spatial Demography. (4) Discussion, three hours; reading period, two hours. Selected topics in migration and mobility, especially the nature of housing choice and neighborhood change. May be repeated for credit. S/U or letter grading.

246. Location and Space Economy. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Methods of locational analysis as applied to problems of regional growth and development. S/U or letter grading.

249. Seminar: Economic Geography. (4) Discussion, three hours; reading period, two hours. Requisite: course 248. Related research projects growing out of course 248. May be repeated for credit.

250. Urban Systems. (4) Lecture, 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) Discussion, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit.

254. Migration and Residential Mobility. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Description and modeling of national, regional, and intra-urban migration.

Procedures

260. Advanced Field and Laboratory Analysis in Geomorphology. (4) Laboratory/fieldwork, 10 hours. Preparation: two courses from 200, 201, 202, 203, 215. Designed for graduate students. Examination of advanced field and laboratory procedures used in contemporary geomorphic research, with emphasis on scientific design, instrumentation, and data evaluation.

262. Advanced Field Analysis: Biogeography. (8) Fieldwork, 10 hours. Observation, measurement, and analysis of biogeographic phenomena, including identification and evaluation of biotic populations and communities and their modifications resulting from the impact of human activity.
Core Courses

297A. History of Modern Geography. (4) (Formerly numbered 298B.) Lecture, three hours; reading period, one hour. Evolution of the field of geography in the 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as a 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 contemporaneous development of modern concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as academic discipline. S/U or letter grading.

298A. Epistemological Issues in Geographical Inquiry. (4) Lecture, three hours. Discussion of geographical research within context of philosophical debates concerning the nature of scientific inquiry. S/U or letter grading.

299A. Statistical Methods for Geographic Research. (4) (Formerly numbered 298C.) Lecture, three hours; laboratory, two hours. Requisite: course M171. Use of linear models, discriminant functions, and factor analysis to analyze problems in geography. S/U or letter grading.

299B. Geographic Data Visualization and Analysis. (4) Lecture, three hours; laboratory, two hours. Requisites: courses M40, 168. Development of broad base of knowledge and set of skills that foster conduct of high-quality geographic data analysis. 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 meth- odologies available to and implemented by geographers to enable students to evaluate geographic liter- ature critically. 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 the University. May be repeated for credit. S/U grading.

Undergraduate Study

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 Old Norse grammar and/or composition. Students with demonstrated preparation may be permitted to transfer to a more advanced course with consent of the instructor.

German B.A.

Preparation for the Major

Required: German 1, 2, 3, 4, 5, 6, or equivalent. Students who have completed one year of college-level German language courses should enroll in course 4. Students who are in doubt as to their level of language proficiency or who are native speakers should consult the language program supervisor. Students in Plan C must also take Linguistics 20.

Transfer Students

Transfer applicants to the German major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German.

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

Three plans are offered by the department:

Plan A: Literature and Culture

Plan A is designed for students who are interested in studying German language and thought by selecting courses in literature, film, folklore, and contemporary culture studies.

Required: German 130A, 130B, and 11 upper division German courses, at least three of which must be at the 150 level or above, and four upper division courses in a related field or fields selected in consultation with the undergraduate adviser. Students who enroll in any course taught in English translation in the department must sign a contract with the instructor that all texts authored in German are to be read in the original language. The contract must then be filed with the undergraduate adviser. Only two such contract courses may be applied toward the major. All courses must be taken for a letter grade.

Plan C: Germanic Languages/Linguistics

Plan C is intended for students interested in the study of languages and linguistics and allows students to study more than one Germanic language.

Required: German 130A, 130B, 150, 170, C172, and eight additional upper division courses as follows: three courses in one other Germanic language (Scandinavian languages taught in the Scandinavian Section may be applied by petition to the undergraduate adviser), three linguistics courses from outside the department (i.e., anthropology, applied linguistics, linguistics, sociology) selected in consultation with the undergraduate adviser, and two electives from department offerings (excluding German 100A, 100B, 100C, and courses taught in English translation). All courses must be taken for a letter grade.

Honors Program

To qualify for graduation with departmental honors, students must earn a cumulative grade-point average of 3.6 or better in upper division German courses and a 3.3 overall GPA, and complete German 199 with a grade of A. Contact the departmental honors adviser for procedures, special arrangements, possible exceptions, and other information.

German Minor

To enter the German minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Courses (8 units):
German 5 and 6 or equivalent.

Required Upper Division Courses (20 units):
Any five German courses (excluding German literature in translation).

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

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), Hungarian, Old Norse, Scandinavian languages, Yiddish.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) 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 Post-apartheid Era, in English Translation. (9) (Formerly numbered 114.) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Development of all literature in Afrikaans, with special attention to authors and poets who protested apartheid — Brink, Breynatenbach, Van Heerden, Jonker, Joubert, Krieger, Krog, Leroux, Rabie, Small, and Willemsen. Additional readings by Coetze, De Lange, Krog, and others on censorship, imprisonment, South African history, and postcolonial literary theory. P/NP or letter grading.

Upper Division Courses

105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to a sister language of modern Dutch and a national language of South Africa. Grammar, practice in listening, speaking, reading, and writing. P/NP or letter grading.

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 the Genootskap van Regte Afrikaners in 1875 to the present time, including novels by recent writers such as Leroux and Brink, as well as work of poets such as Eybers, Opperman, W.E.G. Louw, Van Wyk Louw, and Breynatenbach; P/NP or letter grading.

199. Special Studies in Afrikaans. (2 to 4) Tutorial, to be arranged. Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite. Letter grading.
German Courses

596. Directed Individual Study or Research in Afrikaans. (4) Tutorial, to be arranged with faculty mem-
ber who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. num-

597. Preparation for Ph.D. Qualifying Examina-
tions. (4) Tutorial, to be arranged with instructor (see department for I.D. number). S/U grading.

Lower Division Courses

1. Elementary German. (4) Lecture, five hours; labo-
ratory, one hour. P/NP or letter grading.
2. Elementary German for graduate students. (4) Preparation for Graduate Division foreign lan-
guage reading requirement. May not be applied to-
degree requirements. S/U grading.
3. Elementary German. (4) Lecture, five hours; labo-
ratory, one hour. Enforced requisite: course 1. P/NP
or letter grading.
4. Intermediate German. (4) Lecture, five hours; lab-
oratory, one hour. Enforced requisite: course 3. P/NP
or letter grading.
5. Intermediate German. (4) Lecture, four hours; lab-
oratory, one hour. Enforced requisite: course 4. P/NP
or letter grading.
6. Intermediate German. (4) Lecture, four hours; lab-
oratory, one hour. Enforced requisite: course 5. P/NP
or letter grading.
7. Elementary German: Intensive. (12) Lecture, 15
hours; laboratory, five hours. Enforced requisite:
course 3. Intensive intermediate course in German
equivalent to courses 1, 2, and 3. P/NP or letter grading.
8. Intermediate German: Intensive. (12) Lecture,
20 hours; laboratory, four hours. Enforced requisite:
course 4. Intensive intermediate course in German
equivalent to courses 4, 5, and 6. P/NP or letter grading.
9. German Conversation. (4) Discussion, three
hours. Enforced requisite: course 3. Conversation
course designed for intermediate and advanced stu-
dents who wish to improve their spoken command of
the language. Topics of current student interest to be
used as basis for conversation. P/NP or letter grading.
10. Advanced German Conversation. (4) Discussion,
three hours. Enforced requisite: course 3. Conversation
course designed for intermediate and advanced stu-
dents who wish to improve their spoken command of
the language. Topics of current student interest to be
used as basis for conversation. P/NP or letter grading.
11. Advanced German Composition. (4) Lecture,
three hours; discussion, two hours. Study and analysis of
selected masterworks in English translation, including works
from the earliest period, such as the heroic and court-
ly epic, to authors such as Grimmelshausen, Lessing,
Schiller, and Goethe. P/NP or letter grading.
12. Advanced German Literature. (4-5) Lecture,
five hours; discussion, two hours. Historical explo-
ation of major European cities and their cultures. P/NP or letter grading.
13. Advanced German History. (4-5) Lecture,
five hours; discussion, two hours. Historical explo-
ation of how, exactly, intellectual cur-
rents actually ferment change in the world. P/NP or letter grading.
14. Seminar on German Exile Culture in Los Angeles. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for M70. Reflection on history of German exile culture in Los Angeles (lit-
erature, film, music, architecture, philosophy) during the 1940s — on its significance from anthropological, philosophical, political, and historical perspectives. Satisfies Writing II requirement. Letter grading.
15. Figures Who Changed the World. (5) Lecture,
three hours; discussion, one hour. Introduction to strains of German philosophy and political thought that resonated internationally. Use of version of "great man" model of history to move beyond such models in its understanding of how, exactly, intellectual cur-
rents actually ferment change in the world. P/NP or letter grading.
16. Holocaust in Film and Literature. (5) Lecture/ screenings, five hours; discussion, one hour. History of Holocaust and its present memory through exami-
nation of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.
17. German in the 20th Century. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Reflection on cultural history of war — on its sign-
ificance from anthropological, cultural, and philo-
sophical perspectives rather than from perspective of political and historical gains and losses. Emphasis on World War I, a war in which political and military con-
frontation seemed particularly attuned to a sense of confrontationalism and scandal in cultural life. Satis-
fies Writing II requirement. Letter grading.
18. German Exile Culture in Los Angeles. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for M70. Reflection on history of German exile culture in Los Angeles (lit-
erature, film, music, architecture, philosophy) during the 1940s — on its significance from anthropological, philosophical, political, and historical perspectives. Satisfies Writing II requirement. Letter grading.
19. Preparation for Ph.D. Qualifying Examina-
tions. (4) Tutorial, to be arranged with faculty mem-
ber who directs the study (see department for I.D. num-

Graduate Courses

596. Directed Individual Study or Research in
Dutch. (4) Tutorial, to be arranged with faculty mem-
ber who directs the study or research (course section
to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. num-

597. Preparation for Ph.D. Qualifying Examina-
tions. (4) Tutorial, to be arranged with faculty mem-
ber who directs the study (see department for I.D. number). S/U grading.
Upper Division Courses

100A. German History and Culture before 1500. (4) Lecture, three hours; discussion, one hour. Lectures, discussions, and readings in English; knowledge of German not required. Study of German culture and society from the beginning to 1500 as represented in literature, art, and architecture. P/NP or letter grading.

100B. German History and Culture from 1500 to 1914. (4) Lecture, three hours; discussion, one hour. Lectures, discussions, and readings in English; knowledge of German not required. Study of German culture and society as represented in literature, art, music, and architecture from Reformations and invention of printing to start of World War I. P/NP or letter grading.

100C. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Analysis of interrelationship between politics, social conditions, and the arts with respect to war. World Wars I and II and German history to be used as model for principal questions of society and philosophical thinking. P/NP or letter grading.

102A. German Film in Cultural Context: Early German Film. (4) Lecture, two hours; discussion, one hour. Lectures and texts in English; additional readings in German for majors. 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.

102B. German Film in Cultural Context: New German Film. (4) Lecture, two hours; discussion, one hour. Lectures and texts in English; additional readings in German for majors. Survey of German film since 1960 in its thematic and stylistic diversity. Films authored by Werner Herzog, Fassbinder, and Margarethvon Trotta are juxtaposed with commercial comedies of the 1990s. Film discussions enhanced by interactive media. Letter grading.

M104. Tristan, Isolde, and History of Heterosexuality. (4) (Same as Women's Studies M119.) Lecture, three hours. German, French, and English versions of Tristan and Isolde story from Middle Ages to the 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.

106. The Faust Tradition from the Renaissance to the Modern Age. (4) Lecture, three hours. Readings and discussions in English of Faust's role in medieval literature and intellectual history, including chapbook of Doktor Faustus, Marlowe's and Goethe's dramas, and Thomas Mann's and Bulgakov's novels. Letter grading.

M108. Love and Sex in German Literary Tradition. (4) (Same as Women's Studies M108.) Lecture, three hours. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.

110. Nietzsche and Critique of Western Culture. (4) Lecture, two hours; discussion, one hour. Readings that focus on Nietzsche's critique of Christianity, master/slave dynamic, and reciprocal relation between poetry and philosophy. German majors required to complete all readings in German. Letter grading.

112. Jewish Writing and Thought in German Culture from 1755 to the Present. (4) Lecture, three hours. Analysis of works that represent process of Jewish assimilation, disenfranchisement, and extermination, including authors such as Mendelssohn, Heine, Kafka, Paul Celan, Nelly Sachs, Anne Frank, and others. Letter grading.

114. German Exile Culture in Los Angeles. (4) Lecture, three hours. Cultural and historical exploration of exiles as a 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.

116. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Content varies with instructor and may include works by authors such as Thomas Mann, Kafka, Rilke, Brecht, and others. May be repeated for credit. Letter grading.

118. Feminist Issues in German Literature and Culture. (4) Lecture, three hours. 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 didactic/Feminist literature). Letter grading.

120. German Folklore. (4) Lecture, three hours. Survey of various folklore genres in cultural context, including legends, proverbs, and cultural enactments such as carnival. Letter grading.

122. Fairy Tales and the Fantastic. (5) (Formerly numbered M122.) Lecture, three hours; discussion, one hour. 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.

130A-130B. Conversation and Composition on Contemporary Themes I and Social Context. (4-4) Lecture, three hours. Requisite: course 6. Course 130A is requisite to 130B. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

132. Business German. (4) Lecture, two hours; discussion, one hour. Advanced German language course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Readings may include selections from Luther, Heine, Freud, and current others. Students create their own interactive media presentations. Letter grading.

134. Advanced German Language through Cultural History and Current Affairs. (4) Lecture, three hours. Requisites: courses 130A, 130B. Advanced German language course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Readings may include selections from Luther, Heine, Freud, and current others. Students create their own interactive media presentations. Letter grading.


140A. Introduction to Modern Literature. (4) Lecture, three hours. Requisite: course 130A. Readings and analysis of major works from the Middle Ages to the baroque. Letter grading.

140C. Introduction to German Narrative Prose. (4) Lecture, three hours. Requisite: course 130A. Detailed interpretation of Goethe's major works, Parts I and II, together with general consideration of other treatments of the Faust theme in European literature. Letter grading.

150. Language and Linguistics. (4) Lecture, three hours. Requisite: course 130A. Theories and methods of linguistics, with emphasis on structure of modern standard German, its phonology, morphology, syntax, semantics, and pragmatics. Other topics include diachronic, spatial, and social variation of German (i.e., its historical development, dialectology, and sociolinguistic dimensions). Letter grading.

151. Studies in German Literature before 1750. (4) Lecture, three hours. Requisite: course 130A. Reading and analysis of major works from the Middle Ages to the baroque. Letter grading.


162. Advanced Study of Contemporary Literature and Culture. (4) Lecture, three hours. Requisite: course 130A. Literature and Culture after 1945 in German-speaking countries, including issues such as national borders, ethnic identity, gender relations, and commercialization of culture. Letter grading.

170. Current Topics in German Linguistics. (4) Lecture, three hours. Requisite: course 130A. In-depth investigation of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology, syntax, semantics, and pragmatic, social and spatial variation (i.e., sociolinguistics and dialectology) of German, or history of German. Letter grading.


187. Undergraduate Seminar. (4) (Formerly numbered 190.) Seminar, three hours. Required of all German majors who are candidates for general secondary instructional credential. Content varies by instructor and may include advanced work in folklore, film, and German studies. Letter grading.

197. Individual Studies in German. (2 to 4) Seminar, three hours. Required of German majors who are candidates for general secondary instructional credential. Content varies by instructor and may include advanced work in folklore, film, and German studies. Letter grading.
Graduate Courses

20A. Bibliography, Research Methods, and Scholarly Writing. (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 post-structuralism. 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 mediæval German literature and literary history and to use of contemporary theory in study of medieval texts. Continued practice in reading Middle High German, although most texts to be read in modern translation. Letter grading.

204. Early Modern German Literature. (4) Lecture, three hours. Selected readings from 1500 to 1700, with introduction to development of German as a modern literary language and to literary genres and cultural models. Impact of Thirty Years' War on German literary production and reception in German language. 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 theoreticians. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffmann, with attention to relationship between Romanticism and other periods. Letter grading.

209A. 19th-Century Lyrics. (4) Lecture, three hours. Discussion and analysis of lyric poetry from the classic/Romantic period through symbolism. Discussion of changes in genre, form, content, and social implication. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works (poetry, drama, prose) of early modernism from Hauptmann to Kafka. Discussion of sociological spectra and pluralism of styles and forms. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of the 20th century as a crisis of alienation, especially in crisis of individuality, 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 and the 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 the present. Study of media theory, feminist film theory, and interrelationships between film, literature, and social history. Letter grading.

217. History of the German Language. (4) Historical survey of development of the standard literary German language from the time of Indo-European unity through proto-Germanic, West Germanic, mediæval period, Reformation, baroque period, and Enlightenment until its final codification at the end of the 19th century.


232. Old High German. (4) 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.


252. Seminar: Historical and Comparative Germanic Languages. (4) Topics selected from the field of historical German phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of the Germanic languages, Germanic verbal and nominal morphology, proto-Germanic syntax). Letter grading.


259A. Seminar: 19th-Century Literature. (4) Lecture, three hours. In-depth analysis of a particular issue in pre-1945 German literature and culture. Letter grading.


262. Seminar: Germanic Folklore. (4) Seminar, three hours. Detailed investigation of individual aspects of Germanic folklore, with emphasis on problems of theory and method in analysis of folklore material. Letter grading.

263. Seminar: Literary Theory. (4) Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor.


26999. Research Resources for European Studies. (2) (Same as French M299, Information Studies M299, Italian M299, Slavic M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and database resources. 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 subject area. Total duration of apprenticeship responsibility for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Approaches to Foreign Language Pedagogy. (4) Seminar, one hour; discussion, two hours. Issues include development of current theories of second-language acquisition, effects of these theories on language teaching, psycholinguistics, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, and design of syllabi for basic foreign language courses. S/U grading.

595. Directed Individual Study or Research. (4) Tutorial, three hours. To be arranged with faculty member who directs study. May be repeated for credit. S/U grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (4 to 12) Tutorial, three hours. To be arranged with faculty member who directs study. Required research paper must be filed with department chair. S/U grading.

598. Research for and Preparation of M.A. Thesis. (4 to 12) Tutorial, three hours. To be arranged with faculty member who directs study. S/U grading.

Old Norse Studies

Lower Division Course

40. Heroic Journey in Northern Myth, Legend, and Epic. (4) Comparison of the journeys of heroes. Reading: mythological, legendary, folkloric, and epic, including Nibelungenlied, Volsunga saga, Eddas, and Beowulf. Cultural and historic backgrounds to the texts. All readings in English.

Upper Division Courses

135. 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 incursions. P/NP or letter grading.

C139. The Saga. (4) Seminar; three hours. The sagas are the largest extant medieval prose literature. Texts in English, with selections from the different types of Icelandic sagas. Consideration of the history and society that produced these narratives. Concurrently scheduled with course C268.

C140. Viking Civilization and Literature. (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 C241.

C145. Old Norse Literature and Society. (4) Seminar; three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C272.

151. Elementary Old Norse. (4) Introduction to grammar and pronunciation of Old Norse. Selected readings from the sagas and Prose Edda.

152. Intermediate Old Norse. (4) Requisite: course 151. Continued grammar, pronunciation, and readings from the Eddas and sagas of Icelanders, Norwegians, and legendary heroes.


199. Special Studies in Old Norse. (2 or 4) Independent studies course for students who desire more intensive research. May be repeated for credit. Concurrently scheduled with course C245.

C227. Old Norse Literature and Society. (4) Seminar; three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

C228. The Saga. (4) Seminar; three hours. The sagas are the largest extant medieval prose literature. Texts in English, with selections from the different types of Icelandic sagas. Consideration of the history and society that produced these narratives. Concurrently scheduled with course C139. Graduate students do additional readings and write more extensive research papers.

C272. Old Norse Literature and Society. (4) Seminar; three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C145. Graduate students do additional readings and write more extensive research papers.

596. Directed Individual Study or Research. (4) To be arranged with faculty member who directs the study or research (course section to be identified by two-letter code using initials of sponsoring instructor — see department for I.D. number). May be repeated once; however, only one course in the 500 series may be applied toward M.A. graduate course requirement. S/U grading.

597. Preparation for Ph.D. Qualifying Examinations. (4) To be arranged with faculty member who directs the study (see department for I.D. number). S/U grading.

GERONTOLOGY

Interdepartmental Minor
College of Letters and Science

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Larry L. Butcher, Ph.D., Chair

Faculty Advisory Committee
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Jaana H. Juvonen, Ph.D. (Psychology)
Kathleen M. McGarry, Ph.D. (Economics)
Arnold B. Scheibel, M.D. (Neurobiology, Psychiatry and Biobehavioral Sciences)

Scope and Objectives

The explosive expansion of the older population in this country and the world—the “Age Revolution”—insures that issues regarding aging will dominate our environmental, economic, social, political, psychological, and medical concerns and endeavors well into the twenty-first century. The undergraduate minor in Gerontology (1) introduces students to the field, (2) prepares them for advanced academic work, (3) lays the groundwork for careers involving a burgeoning aging population, (4) contributes to increased public awareness of issues regarding aging, and (5) helps students plan more effectively for their own futures as they and their families age.

Undergraduate Study

Gerontology Minor

To enter the Gerontology minor, students must have an overall grade-point average of 2.0 or better.

Required Upper Division Courses (28 units):
Gerontology M140 and six courses from M104C, M104D, M104E, M119O, M119X, M150, Community Health Sciences 90, Psychopharmacology M117J, 124G, 195A (only 8 units may be applied toward the minor; fieldwork placements must be approved by the chair of the minor), Women’s Studies 185 (only when the special topic is women, health, and aging).

All minor courses must be taken for a letter grade, with 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 Social Welfare M104C and Women’s Studies M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of the aging population and variability in aging processes in formation of gender and ethnicity within context of both physical and social aging. In multidisciplinary perspective utilizing faculty from a variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Social Welfare M104D.) Examination of theoretical models and concepts of the policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of history of contemporary aging policy. Exploration of current policy issues affecting the elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) (Same as Social Welfare M104E.) Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around a key aspect of social gerontology. P/NP or letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Requisite: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Psychology M119X.) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

120. Sex and Aging. (4) Lecture; three hours. Sexuality in aging from psychological, psychobiological, physical, and psychosocial perspectives, with emphasis on difference 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.

M140. Introduction to Study of Aging. (4) (Same as Psychology M140 and 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 the range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.
M141. Women, Health, and Aging: Policy Issues. (4) (Same as Health Services CM141 and Women’s Studies M141.) Lecture; three hours; discussion; one hour. Preparation: two upper division social sciences courses, two upper division biological sciences courses. Social and economic context of older women’s aging, major physical and psychological changes older women experience, delivery of health services to this population, and policies that respond to their health needs. 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 courses; interpersonal relations and social worlds of the aged; caregiving relations and institutions; professions concerned with the aged and aging.

GLOBAL STUDIES
Interdepartmental Program
College of Letters and Science

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Ali Behdad, Ph.D., Chair

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Andreas P. Wimmer, Ph.D., Acting (Sociology)
Amy B. Zegart, Ph.D. (Public Policy)

Scope and Objectives
The Global Studies major is designed to provide students with a rigorous interdisciplinary education in the major issues confronting today’s globalized world, as well as its historical antecedents (most notably in the late-nineteenth century). The major 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 (regional and global forms of governance) and below (autonomy and secessionist movements) and from security threats beyond interstate warfare (ethnic conflict, terrorism, civil wars). Markets 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. These themes are central to much scholarship in the humanities and social sciences, but the various disciplines study them from different theoretical starting points, use different modes of inquiry, and frequently talk past each other. It is impossible to come to grips with the multidimensional phenomenon that is globalization if one discipline or perspective is privileged over another. Instead, the Global Studies major uses a multidisciplinary base in the major humanities and social sciences disciplines, and the insights of these disciplines are integrated by a common interest in understanding the myriad and complex interconnections that characterize the contemporary world.

Undergraduate Study

Global Studies B.A.

Admission
To enter the Global Studies major, students must have a minimum grade-point average of 2.5 and must have completed all non-language preparation for the major courses and one modern foreign language equivalent to level 3 at UCLA. Interested students are strongly advised to meet with the academic counselor to discuss the requirements and must file a petition in the Undergraduate Advising Office, 10375 Bunche Hall, to declare the major.

Preparation for the Major

Required: Global Studies 1; one statistics course selected from Political Science 6, 6R, Statistics 10, 11, or M12; demonstrated proficiency equivalent to level 3 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 2CW, 1D or 2DW, Ethnomusicology 25, Geography 3, 6, History 2B, or World Arts and Cultures 20, (2) one governance and conflict course selected from History 22, Political Science 10, 20, 30, 50, 50R, or Sociology 1, and (3) one markets course selected from Economics 1, 2, or Geography 4.

The remaining two courses, taken from two separate categories, may be selected from the three lists above. One course from the following list may be applied toward the culture and society category: Asian 70C, French 14, 14W, Italian 42A, 42B, Near Eastern Languages 50C, Portuguese M42, M44, Russian 90B, 90BW, Spanish M42, M44.

Transfer Students
Transfer applicants to the Global Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one modern world history course, one major world region languages and cultures course, one international politics course, one macroeconomics or microeconomics course, one statistics course, and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language.

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: Global Studies 100A, 100B, 110A, 110B, and seven elective courses, with at least two from each of the following categories and at least three in one category: (1) culture and society — Anthropology M154Q, Art History C180A, Chicana and Chicano Studies M147, Communication Studies 122, Comparative Literature 100, C173, English 114, Film and Television 110C, French 142, Geography 133, 138, Sociology 151, 154, M162, 191F, Women’s Studies M147C, M154Q, M162, World Arts and Cultures 102; (2) governance and conflict — Asian American Studies 171A, Geography 140, History 121E, 121F, 135C, Political Science 122A, 138B, 166, Public Policy C117, Sociology 182; (3) markets — Anthropology 153P, Chicana and Chicano Studies 125, Economics 110, 120, 121, 122, 181B, Geography 148, History 131A, International Development Studies M100B, Political Science 124, 1467C, Sociology 183.

During their senior year, students must also take Global Studies 190, 191, 199A, and 199B.

Global Learning Institutes
After successful completion of Global Studies 100A and 100B, majors 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. Transfer applicants to the Global Studies major who cannot attend the summer travel study program must instead take two upper division courses in the globalization of one of the world’s regions, subject to approval by the program chair.

At the end of the institute, students may stay in the foreign country to pursue internships in local government, corporate, or nonprofit organizations.

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, Comparative Literature 1C or 2CW, 1D or 2DW, Ethnomusical-
Global Studies

Scope and Objectives

The field of health services examines the organization and financing of various activities to prevent and treat disease. This includes programs in both the public and private sectors at all levels — local, state, and federal. Faculty members come from such diverse fields as economics, management, law, statistics, operations research, planning, medicine, history, sociology, and political science. These diverse backgrounds are harmonized by their devotion to the analysis of problems in the financing and delivery of health services, with focus on populations rather than individual patients.

The Department of Health Services offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public Health (M.P.H.), includes training in various aspects of health administration such as policy formulation, health planning, organization, and management. For more advanced professional work, the Dr.P.H. degree offers education in the full scope of public health services and prepares candidates for leadership in community health work at all jurisdictional levels. For information on the M.P.H. and Dr.P.H., see Public Health Schoolwide Programs.
Graduate Degrees, available at the Graduate
needs. Concurrently scheduled with course CM241.

women experience, delivery of health services to this
courses, two upper division biological sciences cours-
hour. Preparation: two upper division social sciences
(4)
235. Law, Social Change, and Health Service Poli-
cy. (4) Lecture, four hours. Preparation: two upper di-
vision political science or sociology courses. Requi-
site: course 100. Legal issues affecting policy formu-
lation for environmental, preventive, and curative health service programs. Letter grading.

M236. Microeconomic Theory of Health Sector. (Same as Public Policy M236A.) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of health care system, includ-

199. Special Studies. (2 to 4) Tutorial, to be ar-
ranged. Preparation: submission of written proposal
teaching, the department offers M.S. and Ph.D.
degrees in Health Services. These programs
maintain close ties with related activities in the
Schools of Dentistry and Medicine, including the
Robert Wood Johnson Clinical Scholars Program,
the Program in Prevention, and the
Cancer Control Division. The RAND/UCLA
Center for Health Policy Study and the RAND/
UCLA Center for Health Care Financing Re-
search afford opportunities for joint activities
with the RAND Health Sciences Program.
Graduates of the academic degree programs
pursue careers in universities, as well as in
public and private agencies involved in health
services research and health policy analysis.

Graduate Study
Official, specific degree requirements are de-
tailed in Program Requirements for UCLA
Graduate Degrees, available at the Graduate
Division website, http://www.gdsnet.ucla.edu. 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 Health Services offers
Master of Science (M.S.) and Doctor of Philos-
ophy (Ph.D.) degrees in Health Services.

Health Services
Upper Division Courses
100. Health Services Organization. (4) Lecture,
four hours; discussion, one hour. Preparation: 4 units of social sciences. Structure and function of American
health care system; issues and forces shaping its fu-
ture. P/NP or letter grading.
M110. Ethnic, Cultural, and Gender Issues in
America’s Health Care Systems. (4) (Same as
Asian American Studies M161.) Lecture, three hours.
Preparation: for juniors and seniors. Introduction to study of
gender, ethnicity, and cultural diversity related to
health status and health care delivery in the U.S. Let-
ter grading.
C121. Tobacco: Prevention, Use, and Public Poli-
cy. (4) Lecture, four hours. Designed for juniors/se-
niors. Study of tobacco use and its health conse-
quences, including interplay of historical, biological,
sociocultural, political, and economic forces with
knowledge, attitudes, and behavior choices of indi-
viduals. Introduction to prevention interventions, cessa-
tion interventions, anti-tobacco efforts in the U.S., and
international trends in tobacco use. Concurrently
scheduled with course CM221. Letter grading.
(4) (Same as Gerontology M141 and Women’s Stud-
ies M141.) Lecture, three hours; discussion, one hour.
Preparation: two upper division social sciences
courses, two upper division biological sciences cour-
es. Social and economic context of older women’s ag-
ing, major physical and psychological changes older
women experience, delivery of health services to this
population, and policies that respond to their health
needs. Concurrently scheduled with course CM241.
Letter grading.

199. Special Studies. (2 to 4) Tutorial, to be ar-
ranged. Preparation: submission of written proposal

204. Pharmaceutical Policy. (4) Lecture, three
hours. Policy issues pertaining to pharmaceutical
sector. Topics include determination of expenditures on
drug price setting in industry, health insurance
coverage for pharmaceuticals, and research and de-
velopment process. Letter grading.

206. Latino Health Policy: Theory, Method, and
Data. (4) Lecture, three hours. Theory, method, and
data pertaining to Latino health policy issues. Topics
include minority health disparity model, theories on
Latin American culture, issues on communicable dis-
imination, assimilation, and physician supply. Letter
grading.

207A-207B-207C. Current Health Services Topics.
(3-3-3) Seminar, two hours per month. Designed for
graduate students. Examination and discussion of
current health services topics in various practice sec-
tors, with focus on organizational leadership and
direction in addressing these issues. In Progress
(207A, 207B) and S/U or letter (207C) grading.
214. Measurements of Effectiveness and Out-
comes of Health Care. (4) Lecture, three hours.
Preparation: courses 200A, 200B, 422, Biostatistics
100A. Historical perspective for development of
health status measures and their utilization in assess-
ment of outcomes in medical care. Review of current
methods in context of current re-
search and practice. Letter grading.

220. Seminar: Cost Containment. (4) Seminar,
three hours. For juniors and seniors. Discussion and dis-

100A. Lecture, two hours per month. Designed for
juniors and seniors. Examination and discussion of
current health services topics in various practice sec-
tors, with focus on organizational leadership and
direction in addressing these issues. In Progress
(207A, 207B) and S/U or letter (207C) grading.
214. Measurements of Effectiveness and Out-
comes of Health Care. (4) Lecture, three hours.
Preparation: courses 200A, 200B, 422, Biostatistics
100A. Historical perspective for development of
health status measures and their utilization in assess-
ment of outcomes in medical care. Review of current
methods in context of current re-
search and practice. Letter grading.

220. Seminar: Cost Containment. (4) Seminar,
three hours. For juniors and seniors. Discussion and dis-

100A. Four-hour seminar. Preparation: one
year of business courses. Topics include
time-series analysis, regression analysis, and
mixture models. Letter grading.

231. History of Public Health. (4) Discussion,
three hours. For doctoral students. Emphasis on
topics which illuminate current issues in public health
policy. Discussion of historical perspectives on health
care providers, health care institutions, health care re-
form movements, public health activities, childbirth,
and AIDS. S/U or letter grading.

232. Governmental Health Services and Trends.
(4) Lecture, four hours. Preparation: two upper divi-
sion social or behavioral sciences courses. Requisite:
course 100. Systematic analysis of interface between
organized programs of personal health services and
governmental agencies at all jurisdictional levels.
Study of changing relationships between traditional
public health and newer medical and health quality
control functions. S/U or letter grading.
M233. Health Policy Analysis. (4) (Same as Com-
munity Health Sciences M232.) Lecture, three hours.
Preparation: courses 100, 200B or 201. Conmo-
ceptual and procedural tools for analysis of health
policy, emphasizing role of analysis during various
phases of the life cycle of public policy. Letter grading.

M234. Health Services Organization and Manage-
ment Theory. (4) Lecture, four hours. Preparation:
two upper division social sciences courses. Requisite:
course 100. Application of contemporary organization
and management theory to systems that provide per-
sonal health care services. Environmental character-
istics, missions/goals, structure, and processes of
health services organizations. S/U or letter grading.

235. Law, Social Change, and Health Service Poli-
cy. (4) Lecture, four hours. Preparation: two upper di-
vision political science or sociology courses. Requi-
site: course 100. Legal issues affecting policy formu-
lation for environmental, preventive, and curative health service programs. Letter grading.

M236. Microeconomic Theory of Health Sector. (Same as Public Policy M236A.) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of health care system, includ-
in health manpower substitution, choice of efficient modes of treatment, market efficiency, and competi-

237A. Special Topics in Health Services Research
Methodology. (4) Lecture, four hours. Preparation: Biostatistics 200A. Approaches to conceptualization,
modeling, design, literature reviews, sampling, data
collection, and research. Development of health ser-

237B. Special Topics in Health Services Research
Methodology. (4) Lecture, four hours. Preparation: Biostatistics 200A and 200B or 201. Introduction to multivariate analysis techniques in health services re-
search. Model specification and estimation, regres-
sion diagnostics, variable transformations, instrumen-
tal variables. Application of statistical software using
large-scale national database. Letter grading.

237C. Issues in Health Services Methodologies. (4) Lecture, four hours. Preparation: courses 237A,
237B, Biostatistics 200A, 200B or 201. Designed for
dothoral students. Intended to train students in statis-
tical and economic methods used in health services
research, with focus on practical application of ad-
vanced regression models. Letter grading.

238. Politics of Health Care. (4) Lecture, four hours.
Preparation: course 100. Concepts and procedures for
political analysis; national, state, and local politics
in health care; examination of selected case studies.
S/U or letter grading.

239. Aging and Long-Term Care. (4) Lecture, four hours. Preparation: courses 238, 258, Community
Health Sciences 270A, 270B. Lecture and clinical care of the chronically ill elderly examined from perspective of
political and sociodemographic trends, including pop-
ulations at risk, policy options, and alternative forms of care such as nursing home and home care by informal support systems. Letter grading.

240. Health Care Issues in International Perspec-
tive. (4) Lecture, four hours. Preparation: two upper division courses, two upper division social sci-
ces courses. Analysis of crucial issues in health care;
manpower policy, economic support, health fa-
cilities, patterns of health service delivery, regulation,
planning, and other aspects of health care systems
explored in settings of European welfare states, devel-
oping nations, and socialist countries. S/U or letter grading.
CM241. Women, Health, and Aging: Policy Issues. (4) (Same as Social Welfare M290D.) Lecture, three hours; discussion, one hour. Preparation: upper-division social sciences course, two upper-division biological sciences courses. Social and economic context of older women's aging, major physical and psychological changes older women experience, and implications for health services to this population, and policies that respond to their health needs. Concurrently scheduled with course CM141. Letter grading.

M242. Determinants of Health. (4) (Same as Community Health Sciences 2323.) 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.


249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Requisites for each offering announced in advance by department. Advanced seminar or graduate seminar focusing on topics in health policy, health financing, and organization and administration of health services. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change.

249D. Principles of Organization Leadership: Applications in Public Health and Welfare. (4) Lecture, three hours; discussion, three hours. Designed for graduate students. Examination of principles and models of organization leadership, including presentation by current leaders in the fields of health and welfare. Theories and empirical investigations of leadership qualities. Letter grading.

M249E. Advanced Topics in Health Economics. (4) (Same as Public Policy M266.) Seminar, four hours. Requisites: courses 200A, 200B, M236. Advanced treatment of number of topics in health economics, including mental health economics, pharmaceutical economics, and relationship between labor supply, welfare, and health. Letter grading.

249F. Quality Assessment and Assurance. (4) Seminar, four hours. Preparation: one health service or epidemiology course. Course 100, Biostatistics 100A, Epidemiology 100. Fundamental issues in quality assessment, quality assurance, and measurement of health status. S/U or letter grading.

249G. Health Policy and Organizational Analysis. (4) Seminar, three hours. Requisites: courses 200A, 200B. Doctoral-level seminar focusing on techniques to assess a broad spectrum of medical technologies, in vitro diagnostics, and procedures, clinical practice patterns, public health interventions, and pharmaceuticals. Demonstration of how decision analysis provides basic framework for conducting various economic evaluations. Letter grading.

249H. Current Research Issues. (2 to 4) Discussion, two hours. Designed for doctoral students. Review of articles in health services journals nominated as the best published during 1980. Analysis of articles to determine contribution to theory, methods, and implications for management or policy in health services organizations or health services as a field. S/U or letter grading.

249I. Seminar Series. (2 to 4) Seminar, two hours. Designed for doctoral students. Presentation of proposed or ongoing research projects by faculty and students, with discussion to determine relevant methodological and policy issues, as well as to offer constructive criticism. S/U or letter grading.

M249J. Mental Health Services. (4) (Same as Psychiatry M252.) Lecture, three hours. Requisites: courses 200A, 200B. Designed for doctoral students. Survey of mental health services, including mental health services to emotionally and mentally ill and retarded. Analysis of characteristics of such services, with historical background of their evolution and projections of their future prospects. Letter grading.

249K. Health Care Practice Guidelines, Variations in Care, and Patient Outcomes. (4) Lecture, three hours. Requisites: courses 200A, 200B, M422, Biostatistics 100A. Designed for students to participate in review of critical examination of selected papers dealing with course topics, including small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for health policy. Letter grading.

M249L. Ethical Issues in Public Health. (4) (Same as Community Health Sciences M249L.) Lecture, four hours. Requisites: courses 200A, 200B. Case conferences, based on real-life experience, focus on ethical issues in health services organization and management, including ethical issues related to conflict of interests, termination of patient relationships, determination of choice of drugs, reproductive rights, AIDS, and resource allocation. Letter grading.

249M. Review of Current Health Services Management Literature: (2) Lecture, two hours. Designed to help students review current developments in health services management and to place these current developments in proper context of academic research and theory. Letter grading.

249N. Accessing, Analyzing, and Presenting Health Care Management Data. (2) Lecture, two hours. Designed to provide first-year M.P.H. health professional students with basic skills, and acquisition and quantitative analysis of data for health care management, as well as written and oral presentation of those results. Letter grading.

249O. Tobacco and Public Policy. (4) Lecture, four hours. Information and analysis of principal issues in tobacco control. As administrators, researchers, and activists in field of tobacco control, professionals in all specialties of public health should be fully informed on strategies to combat worldwide tobacco epidemic. Letter grading.

249P. Ethical Issues and Health Care Executive. (2) Lecture, two hours. Introduction to ethical issues facing managers in health care organizations today. Understanding and resolving these issues within a framework of ethical principles, and discussion of organizational ethics, decision making, and ethical responsibilities. Letter grading.

250. Evolution of Health Professions in the 20th Century. (4) Lecture, two hours; discussion, two hours. During the 20th century there have been dramatic changes in composition of "helping" professions. Review of forces responsible for these changes and description of processes by which lay persons are educated/socialized into major subgroups of health professions. Review of major social forces external to health care system that affect its composition. Letter grading.

250A. Principles of Organization Leadership: Applications in Public Health and Welfare. (4) Lecture, two hours. Introduction to ethical issues facing managers in health care organizations today. Understanding and resolving these issues within a framework of ethical principles, and discussion of organizational ethics, decision making, and ethical responsibilities. Letter grading.

250B. World Health. (2-2) Lecture, two hours. Designed for graduate students. Overview of world health, with emphasis on health care outside the U.S. Key areas include burden of infectious diseases, health economics, and impact of health care policy on health care delivery. In Progress (260A) and letter (260B) grading.

256. Challenges in Clinical Health Services Research. (4) Lecture, four hours. Requisites: courses 200A, 200B. Designed to prepare students for challenges involved in conducting health services research on clinical topics and populations. Topics include formulating appropriate questions, identifying sources, mechanism of conducting field studies, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

M269. Health Care Policy and Finance. (4) (Same as Public Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of public policy on health and costs, consumer protection movement, and rise of competitive health care markets. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Psychology M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in the U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

286. American Political Institutions and Health Policy. (4) Lecture, three hours; discussion, one hour. To effectively participate in policy process as analyst, policymaker, advocate, or citizen, it is necessary to understand institutional and political context within which policy is made. Introduction to federal and state policy-making, with focus on health policy. Discussion of federalism and constitutionalism. Examination of stakeholders, public, interest groups, and nature of issue space for health policy. Structure and process of political institutions at federal level. Congress, Presidents, Executive agencies, courts, and administrative law. State responsibilities and federal/state relations. How analysis enters policy process with examination of roles of federal agencies and private research and advocacy groups. Letter grading.
288. Role and Impact of Technology on Health Services. (4) Lecture, four hours. Examination of role and impact of health services technologies 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.


401. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and understanding of basic health information technologies. Recommended requisite: course 251. Introduction to field of public health informatics, examination of impact of information and communication technology on delivery of public health. Entire process, from systems conceptualization and design to project planning and development to system implementation and use. Letter grading.


M411. Issues in Cancer Prevention and Control. (4) (Same as Community Health Sciences M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of the cancer epidemic, cancer control goals for the nation, and interventions designed to encourage smoking cessation/prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

M422. Practices of Evaluation in Health Services: Theory and Methodology. (4) (Same as Sociology M422.) Lecture, four hours. Requisites: courses 200A, 200B. General survey of legal aspects of health services organizations at several levels: individual, interpersonal, group, intergroup, system, and interorganization. Unique features of health services organizations are stressed as applications are presented. Letter grading.

430. New Developments in E-Health and Internet. (4) Lecture, four hours. Introduction of new technologies in health care-e-commerce/Internet/new media area, with emphasis on general background, review of applications, and discussion of organizational and managerial issues dealing with successful use and implementation of technologies. S/U or letter grading.

431. Managerial Processes in Health Services Organizations. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 200A, 200B, Biostatistics 100A. Introduction to organizational theories and basic theoretical concepts and specific evaluation methodologies and designs. Letter grading.


433. Health Services Organization Policy and Strategy. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 234, M336B, Biostatistics 100A, 100B. Examinations of political, analytical, and technical aspects of policy and strategy formulation in health services organizations. Special attention to structure and dynamics of competitive markets, corporate-level strategic planning and marketing, managerial ethics and values, organizational creativity/innovation. Letter grading.

434. Employer/Employee Health Management. (4) Lecture, two hours; discussion, two hours. Preparation: requisites for basic course. A combination of three graduate courses in health planning, hospital finance, health policy, health insurance, occupational health, health services research, and health information systems. Requisite: course 100. Preview and analysis of how employer and employee groups provide, sponsor, and manage health-related services for others. S/U or letter grading.


437. Legal Environment of Health Services Management. (2) Lecture, two hours; discussion, two hours. Preparation: requisites for basic course. An overview of health policy trends and developments and implementation at state government level, with emphasis on financing, direct provision, and regulation of health care services, facilities, equipment technology, and manpower. Exploration of intergovernmental relationships. S/U or letter grading.


440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisites: course 440A. Health and administrative research using clinical records. Principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency. Introduction to principles of medical auditing; analysis of medical and health services. S/U or letter grading.

441. Ambulatory Care in the U.S. (4) Seminar, three hours. Requisites: courses 200A, 200B, 403, Management 403. Introduction to organization and management concepts, problems, and issues in ambulatory health services, including financial management and information systems requirements. Letter grading.


443A. Biological and Social Bases of Prevention. (4) Lecture, two hours; discussion, two hours. Requisites: courses 100 (or 200A and 200B), Biostatistics 100A, 100B. Demonstration of the methodology of health planning by involving students in formulation of actual health plan for existing agency in Los Angeles area. Letter grading.


447. State Health Policy Issues. (4) Seminar, three hours. Requisite: course 238. Focus on health policy development and implementation at state government level, with emphasis on financing, direct provision, and regulation of health care services, facilities, equipment, technology, and manpower. Exploration of intergovernmental relationships. S/U or letter grading.


M449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health Sciences M436A-M436B.) Lecture, four hours. Requisite: course 100. Course M449A is requisite to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.


501. Cooperative Programs. (See 301) 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 arrangement. 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. S/U grading.

597. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master's Thesis Research. (2 to 8) 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 8) 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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Craig B. Yirush, Ph.D.

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Lecturer
Larry Lauerhass, Ph.D., Emeritus

Adjunct Professors
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Robert C. Ritchie, Ph.D.

Scope and Objectives
History is the study of the past of our own society and how it emerged out of the traditions that produced it. At the same time, self-knowledge for students of history comes not only from self-discovery, but from a comparison of their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in 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
History B.A.

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). All courses 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 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 under-graduate 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/adm_tr.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) History 191.

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 major must have a cumulative 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, 183, History 179A through 180C, any upper division Honors Collegium 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 interpretative paper of significant length and intellectual content. Only one course applied toward the students’ majors may also be applied toward this minor. Transfer credit for courses may be subject to departmental approval.

One course may be taken on a Passed/Not Passed basis; all other minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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 History offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in History. A concurrent degree program (History M.A./Library and Information Science M.L.I.S.) is also offered.

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 the world of the Greeks to that of the 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 representative contemporary documents and writings of enduring interest. P/NP or letter grading. 1A, Ancient Civilizations from Prehistory to Circa A.D. 843; 1B, Circa A.D. 843 to Circa 1715; 1C, Circa 1715 to the 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 from Prehistory to Circa A.D. 843 (Honors); 1BH, Circa A.D. 843 to Circa 1715 (Honors); 1CH, Circa 1715 to the 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, product liability and consumer safety, 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. (5) Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agricultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C-2D. Religion, the Occult, and Science. (5-5) Lecture, three hours; discussion, two hours. P/NP or letter grading:

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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://www.gdnet.ucla.edu. 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 History offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in History. A concurrent degree program (History M.A./Library and Information Science M.L.I.S.) is also offered.

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 the world of the Greeks to that of the 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 representative contemporary documents and writings of enduring interest. P/NP or letter grading. 1A, Ancient Civilizations from Prehistory to Circa A.D. 843; 1B, Circa A.D. 843 to Circa 1715; 1C, Circa 1715 to the 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 from Prehistory to Circa A.D. 843 (Honors); 1BH, Circa A.D. 843 to Circa 1715 (Honors); 1CH, Circa 1715 to the 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, product liability and consumer safety, 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. (5) Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agricultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C-2D. Religion, the Occult, and Science. (5-5) Lecture, three hours; discussion, two hours. P/NP or letter grading:
2C. Mystics, Heretics, and Witches in Western Tradi-
tion, 1000 to 1600. (5) Lecture, three hours; discus-
sion, two hours. Specific aspects of elite and popular
culture in medieval and early modern Europe. Man-
ner in which men and women sought to explain, or-
der, and escape terrors of their lives by embracing
transcendental religious experiences and dreaming of
apocalypse and witchcraft. Examination of experienc-
es in context of genesis of the state, birth of a new
science, and economic and social change. P/NP or
letter grading.

2D. Science, Magic, and Religion, 1600 to the
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 ele-
ments that came eventually to be seen as magical.
How Western cosmologies became “disenchanted.”
Magical tradition transformed into modern mysti-
cisms. Political implications of these movements; sci-
ence in totalitarian settings as well as “big science”
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. His-
tory majors may not apply these courses on science
general education requirements. P/NP or letter grad-
ing:

3A. Scientific Revolution. (5) Lecture, three hours;
discussion, two hours. Survey of beginnings of physi-
cal sciences involving transformation from Aristotelian
to Newtonian cosmology, mechanization of natural
world, rise of experimental science, and origin of sci-
ficostmetics. 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 camp-
aign for reason and of culture of an Industrial Revo-
nution. New social science and evolutionary debates
about science and science demonstrate its rising in-
tellectual 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 quan-
tum, and of nuclear weapons, to molecular reduction-
ism in biology and campaigns for statistical objectivity,
examination of involvement of science in technologi-
cal, military, intellectual, 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 grad-
ing.

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 develop-
ment of modern medicine: nature of diagnosis, emer-
gence of surgery, epidemics, conception and treat-
mment of insanity, and use of medical technology. P/NP
or letter grading.

4. Introduction to History of Religions. (5) Lec-
ture, three hours; discussion, two hours. Discussion
of various systems, ideas, and fashions of thought
that have dominated Western approaches to religions
of the world since antiquity. Survey of development
from classical Greek and early Christian theologies
to modern history with its discoveries of religions of In-
dia, China, ancient Near East, etc., and problem of
encounter of various religions in the 19th and 20th
centuries. P/NP or letter grading.

8A. Colonial Latin America. (5) Lecture, three
hours; discussion, two hours. General introduction to
Latin American history from contact period to inde-
pendence. (1492-1821) with emphasis on con-
vergence of Native American, European, and African
cultures in Latin America; issues of ethnicity and gen-
der; development of colonial institutions and societ-
es; and emergence of local and national identities.
Readings focus on writings of Latin American men
and women from the period studied. P/NP or letter
grading.

8AH. Colonial Latin America (Honors). (5) Le-
ture, three hours; discussion, two hours. Honors
course parallel to course 8A. P/NP or letter grading.

8B. Political Economy of Latin American Underde-
velopment, 1750 to 1930. (5) Lecture, three hours;
discussion, two hours. Interaction of privatist and
modern modes of social organization in Latin Ameri-
can history; particularly during the “long” 19th century,
by focusing on relationship between economic change,
social and cultural structures, and politics in the
region. P/NP or letter grading.

8BH. Political Economy of Latin American Under-
development, 1750 to 1930 (Honors). (5) Lecture,
three hours; discussion, two hours. Honors course
parallel to course 8C. P/NP or letter grading.

8C. Latin American Social History. (5) Lecture,
three hours; discussion, two hours. Historical and
contemporary perspective of role of ordinary people in
Latin American societies. Focus of discussion centers
on a major Latin American movie illustrative of a theme
in social history. P/NP or letter grading.

8CH. Latin American Social History (Honors). (5)
Lecture, three hours; discussion, two hours. Honors
course parallel to course 8C. P/NP or letter grading.

9A-9E. Introduction to Asian Civilizations. (5 each)
Lecture, three hours; discussion, two hours. P/NP
or letter grading:

9A. History of India. (5) Lecture, three hours; discus-
sion, two hours. Introduction to survey for beginning
students of major cultural, social, and political ideas,
traditions, and institutions of Indic civilization. P/NP
or letter grading.

9C. History of Japan. (5) Lecture, three hours; discus-
sion, two hours. Introduction to survey for beginning
students of major cultural, social, and political ideas,
traditions, and institutions of Indic civilization. P/NP
or letter grading.

10BH. Introduction to Civilizations of Africa (Hon-
ors). (4) Lecture, three hours; discussion, two hours.
Not open for credit to students with credit for course
10B or 10BH. Enforced requisite: English Composition 3 or
3H. Not open for credit to students with credit for course 10B
or 10BH. Survey of social, economic, and political
developments in Africa since 1800, with focus on slave
trade, imperialism and colonialism, and nationalism
and independence. Attention to different ideologies
(nationalism, socialism, apartheid), rural/urban ten-
sions, changing role of women. Four papers required.
Satisfies Writing II requirement. P/NP or letter grad-
ing.

11A-11B. History of China. (5-5) Lecture,
three hours; discussion, two hours. P/NP or letter grad-
ing. 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 political developments, and
economic and political aspects of late empires and rise of
modern China in contemporary era.

11AH-11BH. History of China (Honors). (5-5) Lec-
ture, three hours; discussion, two hours. Honors se-
quence parallel to courses 11A, 11B, P/NP or letter
grading. 11AH. To 1000 (Honors); 11BH. 1000 to
1950 (Honors).

13A-13B-13C. History of the U.S. and Its Colonial
Origins. (5-5-5) Lecture, three hours; discussion, two
hours. Strongly recommended for History majors
planning to take more advanced courses in U.S. his-
tory. Cultural heritages, political institutions, economic
developments, and social interactions which created
contemporary society. P/NP or letter grading. 13A.
Colonial Origins and First Nation Building Acts; 13B.
19th Century; 13C. 20th Century.

20. World History to A.D. 600. (5) Lecture,
three hours; discussion, two hours. Examination of ear-
est civilizations of Asia, North Africa, and Europe —
Mesopotamia, Egypt, Israel, India, China, Greece, and
Rome — from development of settled agricultural
communities until about A.D. 500, with focus on rise
of cities, organization of society, nature of kingship,
writing and growth of bureaucracy, varieties of reli-
gious expression, and relations between culture and
society. P/NP or letter grading.

21. World History, Circa 600 to 1760. (5) Lecture,
three hours; discussion, two hours. Outline of world
history from rise of Islam to start of Industrial Revolu-
tion; structured around a broad chronological narra-
tive of salient developments. Use of thematic and
comparative approaches, with certain recurring
topics and institutions that modulate from culture to
culture. Reading of variety of contemporary accounts
to look at way people conceived cultures outside their
own. P/NP or letter grading.

22. Contemporary World History, 1760 to the
Present. (5) Lecture, three hours; discussion, two
hours. Broad thematic survey of world history since
the mid-18th century. Examination, through lecture
and discussion, of global implications of imperialism,
total war, nationalism, cultural change, decoloniza-
tion, changes in women’s rights and roles, and
eclipse of world communism. Designed to introduce
students to historical perspective of role of ordinary
people in modern world and to prepare them for more in-depth work in history of specific regions or
countries of the world. P/NP or letter grad-
ing.

88. Sophomore Seminar: History. (4) (Formerly
numbered 88A-88U) Seminar, three hours. Limited
to maximum of 20 lower division students. Readings
and discussions designed to introduce students to
current research in discipline. Culuminating project
may be required. P/NP or letter grading.
95. History Research Methods and Strategies. (1) Seminar, one hour. Development of competency with identification, rating, critical evaluating, and using information in print and electronic, and other formats. Flow of information in variable of disciplines, how to approach research problems systematically, how to access and evaluate information in variety of formats, and how to organize, prepare, and search for information in electronic databases and on Internet. P/NP or letter grading.

96W. Introduction to Historical Practice. (5) Formerly numbered M102A, three hours. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for former course 99W. Introduction to study of history, with emphasis on historical theory and research methods. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1) Seminar, one hour. Corequisite: any course from History 97A through 97O. Limited to History majors. Exploration of topics covered in courses 97A through 97O in greater depth through supplemental readings, discussions, or other activities. P/NP grading.

97A-97O. Historical Practice: Variable Topics. (4 each) (Formerly numbered 98.) Seminar, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Material presented in historical practice courses for topics to be offered in specific term. P/NP or letter grading.

100. History and Historians. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of historiography, including intellectual processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.

101. Topics in World History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical theoretical perspectives. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

102. Explanations in Psychoanalysis and History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical theoretical perspectives. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

103A-M103B. Historical Archaeology. (4-4) Formerly numbered M103A-M103B. (Same as Anthropology M115A-M115B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of processes of history, including intellectual processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.

104. History of Ancient Mesopotamia and Syria. (4) (Formerly numbered M105.) Same as Ancient Near East M104. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of "Fertile Crescent," including Palestine, from Late Uruk to neo-Babylonian period. Letter grading.

105A-105B. Survey of Middle East from 500 to the Present. (4-4-4) (Formerly numbered 106A-106B-106C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Background of rise of Islam, creation of Islamic Empire, and its development. Rise of Dynastic Successors States and Modern Nation States. Social, intellectual, political, and economic development. P/NP or letter grading.

106B. Religion and Society in Modern Middle East. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

107A. Armenia in Ancient and Medieval Times, 2nd Millennium B.C. to A.D. 11th Century; 107B. Armenia from Cilician Kingdom through Periods 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. (4-4-4) (Formerly numbered 112A-112B-112C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

108A. History of North Africa from Islamic Conquest. (4) (Formerly numbered 110D.) 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 the 7th and 8th centuries C.E. until 1578. P/NP or letter grading.

108B. History of Islamic Iberia. (4) (Formerly numbered 108B.) 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.

109A. Early Modern State in Mediterranean. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emergence of Ottoman Empire, colonial expansion, and decline of Ottoman Empire from 1450 to 1700. Exploration of main themes and processes in early modern European and Mediterranean history. P/NP or letter grading.

109B. Palestine, Zionism, and Evolution of Israeli-Palestinian Conflict. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of issues in Middle East from the mid-19th century to the present, with a focus on the Israeli-Palestinian conflict. P/NP or letter grading.

110. History of Modern Iran, 1500 to the Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Iran as distinctly national unit, demystifying Iranian history and distinguishing its peculiarities, Safavid Empire, economy, imperialism, "modernity," construction of Iranian state, religion and political ideologies in early modern and modern periods. P/NP or letter grading.

111A-111B. Topics in Middle Eastern History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading. 111A. Medieval History; 111B. Early Modern History.

112A-112B-112C. Survey of Middle East from 500 to 1300; 113A-113B. History of Ancient Greece. (4-4-4) Formerly numbered 112A-112B-112C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

113A. Rise of Greek City-State. Emphasis on archaic period and early classical age through Persian Wars. 113B. Classical Period. Clash between Athens and Sparta, consequent rise of Macedonia, and aftermath of Alexander the Great.
125A. Baroque and Enlightenment Germany. (4) (Formerly numbered 129A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years' War to end of Napoleonic Wars. Consideration of absolutism as political system, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. (4) (Formerly numbered 129B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, as well as the 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.

125C. 20th-Century Germany. (4) (Formerly numbered 129C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions that Germany has faced during this century: two world wars, shift from monarchy to republic to social democratic state, "re-unification." Consideration of political, social, economic, and cultural spheres. P/NP or letter grading.

125D. History of Low Countries. (4) (Formerly numbered 129D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Examination of aspects of Dutch (and on occasion Belgian) history from medieval period to period after World War II, with emphasis on political and cultural history. Topics include Middle Ages, Dutch Republic in the 17th and 18th centuries, Low Countries from 1830 to 1918, Netherlands and Belgium in context of Europe as a whole. P/NP or letter grading.

126. Europe in Age of Revolution, Circa 1775 to 1815. (4) (Formerly numbered 130.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period from revolt of Thirteen Colonies to French Revolution of 1789, and Napoleon's regime, viewing social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading.

127A-127D. History of Russia. (4 each) (Formerly numbered 131A-131D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions and society; centralization at home and expansion abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1905; Russia in World War I; fall of old regime. P/NP or letter grading.

127B. Imperial Russia from Peter the Great to Nicholas II. (4) (Formerly numbered 131B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Westernization of state and society; centralization at home and expansion abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1905; Russia in World War I; fall of old regime. P/NP or letter grading.

127C. Revolutionary Russia and Soviet Union. (4) (Formerly numbered 131C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolutions of 1917, Civil War, consolidation of Bolshevik Regime; successcession crisis and ascendance of Stalin; collectivization and industrialization; foreign policy and World War II; death of Stalin; de-Stalinization, developments since; stagnation or stability? P/NP or letter grading.

127D. Culture and Society in Imperial Russia. (4) (Formerly numbered 131D.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 127B or Russian 90A or 119. Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored Westernization (1869 to 1917). Topics include key developments from serfdom to postemancipation era, urban society, working-class life and thought, women, clergy, religion, popular culture, accommodation, and resistance. P/NP or letter grading.

127E. History and Culture of Russia: Field Studies. (4) Lecture, 10 hours; fieldwork, 21 hours. Examination of history, art, monuments, and politics of Russia from ancient time to the present. Daily lectures and field trips in and around Moscow and St. Petersburg; study cruise of Volga River towns. Part of UCLA Summer Travel Program. P/NP or letter grading.

128A-128B. History of Italy. (4-4) (Formerly numbered 132A-132B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 128A. 1350 to 1559. Most important social, economic, political, and cultural changes in historical pat. Designed for juniors/seniors. P/NP or letter grading. 128B. 1559 to 1848. Counter-Ref ormation and absolutism, Enlightenment reforms, revolutionary era, and first phase of Risorgimento. Designed for juniors/seniors. P/NP or letter grading.

128BL. Italian Literature in Historical Context, 1559 to 1848. (1) (Formerly numbered 132BL.) Seminar, three hours. Designed for juniors/seniors and to be taken in conjunction with course 128B. Reading of texts in Italian selected from works that relate directly to material covered in course 128B. P/NP or letter grading.

129A-129B. Social History of Spain and Portugal. (4-4) (Formerly numbered 133A-133B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 129A. Age of Silver in Spain and Portugal, 1479 to 1789. Development of popular history in Iberian Peninsula. Emphasis on peasants and urban history, gold routes, slave trade, history of women, and development of different types of collective violence. 129B. Rebellion and Revolution in Modern Spain and Portugal, 1789 to the Present. Spain's position in Europe and its potentialities for social change discussed through investigation of history, agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor history.

130A-130B. Southeastern Europe, (4-4) (Formerly numbered 134A-134B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 130A. 500 to 1500. Political, economic, and cultural survey of independent Balkan states in Middle Ages. 130B. 1500 to 1918. Balkans under Ottoman rule, movements of national liberation, and formation of nation states.

131A-131B. Marxist Theory and History. (4-4) (Formerly numbered 134A-134B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical study of Marxism, 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.

131C. Imperialism and Postcolonialism, 1870 to the Present. (4) (Formerly numbered 140C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of major European events and trends and their impact on world in modern period. Interrelationship of European and world history, from partition of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. P/NP or letter grading.

M133A-M133B. History of Women in Europe. (4-4) (Formerly numbered 137A-137B.) (Same as Wom en's Studies M133A-M133B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from early Middle Ages to the present. P/NP or letter grading. M133A. 600 to 1715; M133B. 1715 to the Present.

133C. History of Prostitution. (4) (Same as Women's Studies M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to the present. Topics include tolerance 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) (Formerly numbered 138B-138C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 134B. 1780 to 1914. Analysis of emergence of "European world economy," first Industrial Revolution, relocations and changes in technology, communications and transport terms, education, transportation, and international relations between Western core and European peripheries in process of industrialization. 134C. 20th Century. Changing European economy after World War I and II and in 1990s; impact of fourth and fifth Industrial Revolutions; Great Depression of century during 1930s, 1970s, and 1980s; and changing modernization strategies; import-substituting industrialization in peripheries; Soviet "modernization dictatorship" in East Central Europe and its collapse; integration process of second half of century and rise of European Union; modern economy.

135A-135B-135C. Europe and World. (4-4-4) (Formerly numbered 140A-140B-140C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. First phase of European expansion in Americas, Africa, and Eurasia. Analysis of motives and methods of expansion, differing patterns of European settlement, including plantation economy, and development of new commercial networks, including Atlantic slave trade. P/NP or letter grading.

135B. Colonialism, Slavery, and Revolution, 1700 to 1870. (4) (Formerly numbered 140B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Origins and gradual increase of European dominance of world trade, impact of European colonialism in New World, Africa, and Asia, influence of new revolutionary ideals that took shape in wake of Enlightenment of the 18th century, and beginnings of industrialization. P/NP or letter grading.

135C. Imperialism and Postcolonialism, 1870 to the Present. (4) (Formerly numbered 140C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of major European events and trends and their impact on world in modern period. Interrelationship of European and world history, from partition of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. P/NP or letter grading.
136A-136B. History of Britain. (4-4-4) (Formerly numbered 141A-141B-141C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of British economic, society, and polity; with focus on dynamics of both stability and change. P/NP or letter grading. 136A. Tudor-Stuart Times, 1468 to 1715. Political, economic, social, and cultural history of Britain under Tudors and Stuarts. Topics include Reformation, transformation of economy, establishment of overseas colonies, 17th-century political upheavals and transformation of economy, establishment of overlordship of the Stuarts, 1485 to 1715. Political, economic, social, cultural, and political 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, shift in religious and social position. 136C. Modern Britain since 1832. 137A-137B. British Empire since 1783. (4-4) (Formerly numbered 142A-142B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focuses on developments that have shaped the U.S. since 1960. 138A. Colonial America, 1600 to 1763. (4) (Formerly numbered 145A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of molding of American society in social, economic, and cultural patterns of the 17th and 18th centuries. Emphasis on interaction of three converging cultures: Western European, West African, and American Indian. P/NP or letter grading. 138B. Revolutionary America, 1760 to 1800. (4) (Formerly numbered 145B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into origins and consequences of the nature of revolutionary process, creation of constitutional national government, and development of capitalist economy. P/NP or letter grading. 138C. U.S. History, 1800 to 1850. (4) (Formerly numbered 146.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Discussion of major social, political, and economic changes of first half of 19th century and how they shaped the wedge between North and South. P/NP or letter grading. 139A. U.S., Civil War and Reconstruction. (4) (Formerly numbered 147A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into origins and consequences of the nature of revolutionary process, creation of constitutional national government, and development of capitalist economy. P/NP or letter grading. 139B. U.S., 1875 to 1900. (4) (Formerly numbered 147B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. American political, social, and institutional history in period of great change. Emphasis on altering concepts of role of government and responses to that alteration. P/NP or letter grading. 139C. American South, 1877 to the Present. (4) (Formerly numbered 147C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of political, economic, social, intellectual, and cultural history of South from cotton belt to Sunbelt. Topics include origins of segregation, sharecropping, Southern politics, Southern culture, and civil rights movement. P/NP or letter grading. 140A-140B-140C. 20th-Century U.S. History. (4-4-4) (Formerly numbered 148A-148B-148C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of political, economic, social, and cultural aspects of American democracy. 140B. 1929 to 1960. Political, economic, intellectual, and cultural aspects of American democracy. 140C. Since 1960. History of political, social, and diplomatic developments that have shaped the U.S. since 1960. 141A-141B. American Economic History. (4-4) (Formerly numbered 149A-149B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 141A. 1790 to 1910. Roles of economic forces, institutions, individuals, and groups 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 the Present. Dynamics of change in dual economy, with focus in greater detail on interrelationships between macro and micro developments in economy and on growing interdependence between the U.S. and world economy from 1910 to the present. 142A-142B. Intellectual History of the U.S. (4-4) (Formerly numbered 150A-150B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Principal ideas about humanism and God, nature and society, which 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 the U.S. (4) (Formerly numbered 150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of religious dimension of people’s experience in the U.S. Examination of number of religious traditions that have been important in this country, with emphasis on altering developments in religion to other aspects of American culture. P/NP or letter grading. 143A-143B. Constitutional History of the U.S. (4-4) (Formerly numbered 151A-151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 143A. Origins and Development of Constitutionalism in the English Legal Tradition. (4) (Formerly numbered 151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 143B. Constitutionalism since the Civil War. Particular emphasis on development of Supreme Court, due process revolution, Court and political questions, and fact of judicial supremacy within self-prescribed limits. 144A-144B. American Diplomatic History. (4-4) (Formerly numbered 152A-152B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 144A. Establishment of independent foreign policy, territorial expansion of the U.S., and emergence of world power. 144B. Role of the U.S. in the 20th-century world. 144BH. American Diplomatic History (Honors). (4) (Formerly numbered 152BH.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Role of the U.S. in 20th-century world. P/NP or letter grading. M144C. Critical Issues in U.S.-Philippine Relations. (4) (Formerly numbered M152C.) (Same as Asian American Studies M171D.) Lecture, three hours; discussion, one hour (when scheduled). Recom- mended preparation: courses 176A, 176B, 176C. Designed for juniors/seniors. Examination of complex interrelationship between U.S. colonialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in the 20th century. P/NP or letter grading. 145A-145B. U.S. Urban History. (4-4) (Formerly numbered 154A-154B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 145A. Cities: An Overview. Demographic, geographic, political, economic, and social development of U.S. cities in relation to broad trends in U.S. history as well as to their own. Special historical topics include mastery of facts and chronology, and awareness of major theore- etical issues and fundamental concepts in urban his- tory. P/NP or letter grading. 145B. History and Exploration of one aspect of U.S. urban history in depth without having to attend to basic chronology or geography. Topics include crime and police, urban economics, and urban government. Students do primary research papers based on local materials in addition to written examinations. May be repeated for maximum of 16 units with topic and/or instructor change. 145C-145D. History of American Architecture and Material Culture. (4-4) (Formerly numbered M154C-154D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Aspects of American cultural history as explored through architecture, urban planning, and allied arts, with emphasis on development of architectural con- sciousness in America, ways in which built environ- ment has affected its users and observers, and extent to which it has reflected their values and ways of liv- ing. P/NP or letter grading. 145C. 1860 to 1900: 145D. 1900 to the Present. 146A-146B. American Working Class Movements. (4-4) (Formerly numbered 155A-155B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major episodes in so- cial, trade union, and cultural history of American working class from Colonial times to the present, with emphasis on both organized and unorganized labor, history of Knights of Labor, A.F. of L. and C.I.O., and development of labor politics. P/NP or letter grading. 146C-146D. U.S. and Comparative Immigration History. (4-4) (Formerly numbered M156A-156B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Use of overlap- ping diaspora model which integrates North Atlantic (Europe), South Atlantic (Afro-Caribbean), Pacific (China/Japan/Hawaii), and Latin (Mexico to Brazil) worlds to provide chronological and analytic survey of American and comparative immigration from 1750 to the present. Special focus on Latin California in course 146D. P/NP or letter grading. 147A-147B. American Social History. (4-4) (Formerly numbered 156A-156B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical analysis of American soci- ety and culture, with emphasis on family, religious values, Afro-American life, women’s work, urbanization and industrialization, immigration and nativism, and movements for social reform. P/NP or letter grading. 147A. 1750 to 1860: 147B. 1860 to 1960. M147C. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Formerly numbered M147C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of early Ameri- can women from initial confrontation of English and American Indian cultures in the early 17th century to rise of women’s rights movement in the mid-19th cen- tury. P/NP or letter grading. M147D. History of Women in the U.S., 1860 to 1980. (4) (Formerly numbered M147D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in histo- ry of American women. Focus on slavery and Civil War to rise and consequences of race, gender, and class feminism. P/NP or letter grading.
149A-149B. North American Indian History. (4-4) (Formerly numbered 157A-157B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Native Americans from contact to the 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, Precontact to 1830; 149B. 1830 to the Present.

M150A. Comparative Slavery Systems. (4) (Formerly numbered M158A.) (Same as Afro-American Studies M158A.) Lecture, three 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.

M150B-M150C. Introduction to Afro-American History. (4-4) (Formerly numbered M158B-M158C.) (Same as Afro-American Studies M158B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American experience, with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

M150D. Recent African American Urban History: Afro-American Experience, with Emphasis on Three Historical Events of Significance Occurring Both in the U.S. and Mexico. (4) (Formerly numbered M158B-M158C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of major issues in recent African American history. P/NP or letter grading.

M151A. History of Chicano Peoples. (4) (Formerly numbered M159A.) (Same as Chicana and Chicano Studies M159A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of historical development of Mexican (Chicano) community and people of Mexican descent in the U.S. through the 20th century, with special focus on social and political issues affecting the community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Developments related to historical events of significance occurring both in the 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) (Formerly numbered M159B.) (Same as Chicana and Chicano Studies M159B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course on historical development of Mexican (Chicano) community and people of Mexican descent in the U.S. through the 20th century, with special focus on social and political issues affecting the community. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical processes and policy issues affecting the community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Developments related to historical events of significance occurring both in the U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M151C. Understanding Whiteness in American History and Culture. (4) (Formerly numbered M1444.) (Same as Chicana and Chicano Studies M1444.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Examination of concept of “permanent crisis” to describe and explain structure of “permanent revolution” under “one-party democracy.” Analysis of unresolved and 19th and 20th century problems and crises that have influenced modern-day Mexico, if modified. P/NP or letter grading.

152. Asians in American History. (4) (Formerly numbered 152.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of politically troubling question of entry into the U.S. of immigrants ineligible for citizenship and their citizen children in American history. P/NP or letter grading.

153. American West. (4) (Formerly numbered 153.) 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 Ocean from 17th century to the present. P/NP or letter grading.

154. History of California. (4) (Formerly numbered 154.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of California from earliest times to the present. P/NP or letter grading.

155. History of Los Angeles. (4) (Formerly numbered M1554.) (Same as Chicana and Chicano Studies M1554.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to the 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) (Formerly numbered M156.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Examination of specific historical themes and/or major issues in U.S. history. P/NP or letter grading.

157A. Early Latin America. (4) (Formerly numbered M157A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Examination of specific historical themes and/or major issues in U.S. history. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4) (Formerly numbered M157B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Advanced survey of Latin American history from conquest to independence, with emphasis on society, culture, and ethnic aspects. P/NP or letter grading.

157C. Indians of Colonial Mexico. (4) (Formerly numbered M157C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Advanced survey of Latin American history from conquest to independence, with emphasis on society, culture, and ethnic aspects. P/NP or letter grading.

158. Latin America in the 19th Century. (4) (Formally numbered M158.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. The rise of nationalism, intervention in Latin America, social and political problems of Latin American nations from their independence to around 1910. P/NP or letter grading.

159. Latin American Elitelore. (4) (Formerly numbered M159.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 158A, 158B, 158C, or 160B. Designed for juniors/seniors. Elitelore (defined as oral or noninstitutionalized knowledge involving leaders’ conceptual and perceptional life history views) in contrast to folklore (followers’ traditional or popular views). Elitelore genres include oral history, literature, and cinema. P/NP or letter grading.

160. Mexican Revolution since 1910. (4) (Formerly numbered M160.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Mexican Revolution since 1910. Examination of concept of “permanent crisis” to describe and explain structure of “permanent revolution” under “one-party democracy.” Analysis of unresolved and 19th and 20th century problems and crises that have influenced modern-day Mexico, if modified. P/NP or letter grading.

161. Topics in Latin America History. (4) (Formerly numbered M161.) 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 modernization and struggle for change, 1850 to the present. Discussions, films, slides, and guest speakers supplement and complement lectures. P/NP or letter grading.

162. Modern Brazil. (4) (Formerly numbered M162.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Modern Brazil. 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.

162B. Brazil and Atlantic World, 1500 to 1822. (4) (Formerly numbered M162B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for 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) (Formerly numbered M162C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. History of economic, political, social, and cultural developments that have shaped Argentina from colonial times to the present. Emphasis on 19th-century development of agro-export economy and 20th-century formation of mass society. P/NP or letter grading.

164A-164Z. Topics in African History. (4 each) (Formerly numbered M175A-175Z.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for seniors. Examination of specific topics which have continental application rather than proceeding on strictly chronological or regional basis. P/NP or letter grading.

165. Prehistoric Africa — Technological and Cultural Traditions. (4) (Formerly numbered M155A.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for seniors. Survey of nondocumentary sources of evidence in African history with emphasis on archaeological evidence from origins of humanity until A.D. 1600. P/NP or letter grading.
164B. Africa and Slave Trade. (4) (Formerly numbered 175B.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading.

164C. Africa in Age of Imperialism. (4) (Formerly numbered 175C.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Topics include penetration of precolonial social formations by capital, emergence of classes, nature of colonial rule, economic exploitation, and struggle for national liberation in global context. P/NP or letter grading.

164D. Africa and Diaspora in Global and Comparative Perspective. (4) (Formerly numbered 175D.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Forcible migration of Africans through overseas slave trade was formative event in shaping world construction of the Americas and its lasting consequences by placing it in its global context — African, American, European, Islamic, and Asian. P/NP or letter grading.

164E. Africa Since the Great Depression. (4) (Formerly numbered 175E.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. History of Africa south of Sahara from end of World War II to the present. Last phases of colonial rule in Africa, African nationalism, Pan-Africanism, liberation movements, and achievement of independence. P/NP or letter grading.

165. Topics in African History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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.

166A-166B. History of West Africa. (4-4) (Formerly numbered 176A-176B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, political, and cultural impact of slave trade on African society, with emphasis on Atlantic trade without neglecting those of ancient Mediterranean, Islamic, and Indian Ocean worlds. Abolition and African diaspora. P/NP or letter grading. 166A. West Africa from Earliest Times to 1800; 166B. West Africa since 1800.

166C. Social and Economic History of West Africa since 1600. (4) (Formerly numbered 176C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of main currents of West African social, cultural, and economic history since fall of Songhai Empire, with emphasis on family, religious values, education, urbanization, migrations, arts, slavery, and slave trade. Roles of economic forces and institutions in promoting or inhibiting economic change in West Africa, ethnic diversity and sociopolitical integration; colonial economic systems and efforts at economic planning and development since the 1950s. P/NP or letter grading.

167A. History of Northeast Africa. (4) (Formerly numbered 177A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of Ethiopia, Sudan, and Somalia in regional context of northeast Africa from earliest times to the 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) (Formerly numbered 178A.) 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) (Formerly numbered 178B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of central Africa from earliest times to growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

168A-168B. History of China. (4-4) (Formerly numbered 179A-179B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to social and economic as well as cultural issues of China up to 1868. From Origins to 1870. Origins of South African peoples and their interactions to 1870. 168B. Since 1870. Interactions between inhabitants of southern Africa since 1870.

169A-169B. Thought and Society in China. (4-4) (Formerly numbered 182A-182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 169A. To 1000. Recommended preparation: course 11A. Elite and popular expressions of Chinese cultural life examined in readings and lectures. Focus on diversities of thought in classical legacy and their evolution under impact of Buddhism to 1000. Emphasis on intellectual and political interactions between intellectual life and social, political, and economic conditions. 169B. Since 1000. Recommended preparation: course 11B. Elite and popular thought and society from 1000 to the 20th century. Emphasis on social, political, and economic conditions within which Chinese orthodox and heterodox values evolved and changed. Evaluation of iconoclasm of Chinese intellectual life in the 20th century in light of earlier currents of thought.

170A. Culture and Power in Late Imperial China. (4) (Formerly numbered 183A.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: courses 11A, 11B. Designed for juniors/seniors. Analysis of relations of power and cultural expressions of dominance and resistance in late imperial China from 1644 to 1911, with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of institutions of state, family, school, and city; idioms of folk religion, death, and afterlife; political, legal, and medical discourses of body, personhood, and social identity; love, sexuality, and private life. P/NP or letter grading.

170B. Selected Topics in Chinese History from 1500. (4) (Formerly numbered 183B.) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 11B. Designed for juniors/seniors. Selected topics that may vary from year to year. Recent offerings include law, society, and culture; society and economy in China. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

170C. History of Women in China, A.D. 1000 to the Present. (4) (Formerly numbered 183C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literate culture, feminist movement, and women and communist revolution. P/NP or letter grading.

170D. 20th-Century China. (4) (Formerly numbered 184.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Political events and intellectual developments seen in context of social-economic trends; human agency, structural change, and historical accidents in the 20th century. P/NP or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Important topics in Japanese history, including political change, economic development, social questions, and popular culture, as well as media and arts, explored through extensive readings. P/NP or letter grading.

172A-172B-172C. Japanese History. (4-4-4) (Formerly numbered 187A-187B-187C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Medieval Japanese history, including political change, economic development, social questions, and popular culture, as well as media and arts, explored through extensive readings. P/NP or letter grading. 172A. Ancient, Prehistory / 1600; 172B. Early Modern, 1600 to 1868; 172C. Modern, 1868 to Present.

173A. Japanese Popular Culture. (4) (Formerly numbered 185A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include popular culture, cinema, music, consumer culture, fashion, and art. P/NP or letter grading.

173B. Women in 20th-Century Japan. (4) (Formerly numbered 185B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including fiction and cultural production. P/NP or letter grading.

174A. Early History of India. (4) (Formerly numbered 188A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to civilization and institutions of India. Survey of history and culture of South Asian subcontinent from earliest times to founding of Mughal Empire. P/NP or letter grading.

174B-174C. History of British India I, II, (4-4) (Formerly numbered 188B-188C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and social development of India and British rule. P/NP or letter grading. 174B. Examination of expansion of Britain's political, social, and cultural influence in India and the effects of British rule. 174C. Political economy of imperialism and Britain's "civilizing mission." Encounter, especially in terms of race and gender, between colonizers and Indians and to questions of resistance and nationalism.

174D. Classical Age of Indian History, A.D. 300 to 1000. (4) (Formerly numbered 188D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Age of glory under Imperial Guptas and subsequent consolidation under Harsha (north India) and Vakataka, Chalukya, Pallava, and Chola (central and south India); emergence of Sanskrit as Pan-Indian language; spread of Indian culture in central and Southeast Asia. P/NP or letter grading.

174E. Bhakti Traditions in Indian History. (4) (Formerly numbered 188E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of Bhakti or devotional traditions in India as part of "Great Tradition" of classical Hinduism: involvement of women; emergence of Sikhism. P/NP or letter grading.

175A. Cultural and Political History of Contemporary South Asia. (4) (Formerly numbered 189A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problem of modernity; partition of India and emergence of Pakistan; political, social, ecological, and women's movements; struggle for rights and conflicts of identity among Muslims, Hindus, and Sikhs; terrorism in Sri Lanka and Punjab; public culture, popular cinema, and street life. P/NP or letter grading.
M175B. Indian Identity in the U.S. and Diaspora. (4) (Formerly numbered M198B.) (Same as Asian American Studies M198B.) Lecture, three hours. Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

175C. Special Topics in Contemporary Indian History. (4) (Formerly numbered 188C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Treatment 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) (Formerly numbered 190A-190B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

176C. Philippine History. (4) (Formerly numbered 190C.) 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 gender and identity under colonialism, understanding Revolutions of 1896 and 1898, and politics of Philippine nationalist discourse. Readings include introductions to major issues in Philippine history and literature. P/NP or letter grading.

176D. Premodern Vietnamese History. (4) (Formerly numbered 190D.) 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.

176E. Vietnam: Past and Present. (4) (Formerly numbered 190E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history and culture of Vietnam from about 700 B.C. to modern times, including political, social, and economic developments as well as international relations in post-1954 period. P/NP or letter grading.

177A. National Histories of Southeast Asia. (4) (Formerly numbered 190Y.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of one or more of Southeast Asia's nation-states: Indonesia, East Timor, Thailand, Cambodia, Burma, Laos, Malaysia, Singapore, Brunei, Philippines, Vietnam. P/NP or letter grading.

177B. Comparative Histories of Southeast Asia. (4) (Formerly numbered 190Z.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

179A. History of Medicine: Historic Roots of Healing Arts. (4) (Formerly numbered 194A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to traditional practices, morals, and beliefs of Western healing professions from time of ancient Greek to Renaissance. Topics range from Hippocrates, Galen, and scholars at Alexandria to healing at Epidaurus and Salerno, contributions of medieval Muslim and Jewish doctors, role of women, medical faculties, nursing orders, and hospitals. P/NP or letter grading.

179B. History of Medicine: Foundations of Modern Medicine. (4) (Formerly numbered 195B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, scientific, and social context that shaped modern medicine, from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, and modern clinical medicine; mapping of human body, medical approach to mental illness, rise of anatomico-clinical method at Paris School. P/NP or letter grading.

179C. Medicine and Society in 19th-Century America. (4) (Formerly numbered 195H.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Therapeutics, theories of disease, and medical science scrutinized with understanding that these are never value-neutral, but are shaped by social structures of which they are products. Why have doctors become so powerful and over whom did they wield power in the 19th century? P/NP or letter grading.

180A. Topics in History of Science. (4) (Formerly numbered 195E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, scientific revolution in Enlightenment, development of theory of evolution, science and public policy, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

180B. Historical Perspectives on Gender and Science. (4) (Formerly numbered 195C.) (Same as Women's Studies M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persona of “man of science,” role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

180C. Science and Technology in the 20th Century. (4) (Formerly numbered 195D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of science and technology and their impact on society, industrialization, global scientific community, social Darwinism, atomic bomb and nuclear proliferation, Cold War and American science, environmentalism, molecular biology and genetic engineering. P/NP or letter grading.

181B. Topics in Jewish History. (4) (Same as Jewish Studies M181B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persona of “man of science,” role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

183A-183B. Third Reich and Jews. (4-(4) (Formerly numbered 191E-191F.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, scientific revolution in Enlightenment, development of theory of evolution, science and public policy, public nature of science. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.


184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Formerly numbered M191H.) (Same as Jewish Studies M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia-old interaction of Jews with great world cultures. Creative adaptation of Jewish culture - the Jewish world - culture to its specific and various forms. P/NP or letter grading.

184B. History of Anti-Semitism. (4) (Formerly numbered M191D.) (Same as Jewish Studies 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.

184C. American Jewish Experience. (4) (Formerly numbered M191L.) (Same as Jewish Studies 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.

184D. History of State of Israel from 1948 to the Present. (4) (Formerly numbered M191S.) (Same as Jewish Studies M184D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to the present. P/NP or letter grading.

185A. History of Religions: Myth. (4) (Formerly numbered 195A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Nature and function of myth in history of religion and culture. Examples selected from nonliterates as well as from other Asian and European traditions. P/NP or letter grading.

185B. Religions of South and Southeast Asia. (4) (Formerly numbered 193B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Nature and function of myth in history of religion and culture. Examples selected from nonliterates as well as from other Asian and European traditions. P/NP or letter grading.
185C. Religions of South and Southeast Asia. (4) (Formerly numbered 193C.) Lecture, three hours; discussion, one hour (when scheduled). Course 2 or 185A. Designed for juniors/seniors. Topics vary from year to year and include Buddhism in India; religions of Java and Bali; nonliterate traditions of India and Southeast Asia. Consult Schedule of Classes for specific topics. May be taken independently for credit. P/N or letter grading.

M185D. Religions of Ancient Near East. (4) (Formerly numbered 193MD.) (Same as Ancient Near East M193D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Mainly polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to ancient Israel; varying concepts of divinity, hierarchies of gods, prayer and cult, magic, wisdom, and moral conduct. P/N or letter grading.

185E. Special Topics in History of Religions. (4) (Formerly numbered 193E.) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics announced in Schedule of Classes and include ancient Germanic cults; Renais- sance mysticism; mystics of low countries; goddesses; religions of East Asia. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

186A. History of Early Christians. (4) (Formerly numbered 194A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Christian movement from its origins to circa 160 C.E., stressing its continuity/discontinuity with Judaism, various responses to Jesus of Nazareth, writings produced in association with the movement, its encounters with its religious, social, and political world, and methods of research. P/N or letter grading.

186B. Religious Environment of Early Christians. (4) (Formerly numbered 194B.) 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 Pharisaeans, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, “mysteries,” astrology, magic, gnosticism, and emperor-worship. P/N or letter grading.

186C. Jesus of Nazareth in Historical Research. (4) (Formerly numbered 194C.) Lecture, three hours; discussion, one hour (when scheduled). Recom- mended preparation: course 186A. Designed for juniors/seniors. Study by significant post-Enlightenment historical evaluations, students are led into first-hand knowledge (in translation) of various multilayered sources for reconstruction of life, teaching, and the internal dynamics of Nazareth in its social, economic, political, and religious contexts. P/N or letter grading.

M187A. Global Feminism, 1850 to the Present. (4) (Same as Women’s Studies M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Introduction to movements for women’s rights (educational, political, economic, sexual, and reproductive) around world and over one-and-a-half centuries. P/N or letter grading.

188. Special Courses in History. (4) Lecture, three hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/N or letter grading.

191A-191O. Undergraduate Variable Topics Seminar. (4 each) (Formerly numbered 1917A-1970C.) Seminar, three hours. Designed for juniors/seniors. Introduction to movements for women’s rights; educational, political, economic, sexual and reproductive) around world and over one and a half centuries. P/N or letter grading.

M191DC. CAPP Washington, DC, Research Seminars. (8) (Same as Political Science M191DC and Sociology M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences in Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.) and CAPP’s approach to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

M194D. CAPP Washington, DC, Research Seminars. (8) (Same as Political Science M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPP Program students in Winter Quarter. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences in Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195. Community or Corporate Internship in History. (4) Formerly numbered 199I.) Tutorial, three hours. Designed for juniors/seniors. Students are led into first-hand knowledge (in translation) of various multilayered sources for reconstruction of life, teaching, and the internal dynamics of Nazareth in its social, economic, political, and religious contexts. P/N or letter grading.

197. Individual Studies in History. (4) (Formerly numbered 199.) 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. Individual contract required. P/N or letter grading.

198A. Honors Research in History. (4) (Formerly numbered 199A.) Seminar, three hours. Limited to juniors/seniors. Development of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. P/N or letter grading.

198B. Honors Research in History. (4) (Formerly numbered 199B.) Tutorial, to be arranged. Required: course 198A. Limited to juniors/seniors. Contin- ued development of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. P/N or letter grading.

198C. Honors Research in History. (4) (Formerly numbered 199C.) Tutorial, to be arranged. Required: course 198B. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

Graduate Courses

200A-200U. Advanced Historiography. (4 each) Seminar, three hours. May be repeated for credit. 200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval Europe; 200D. Early Modern Europe; 200E. Latin America; 200J. Near East; 200K. India; 200L. China; 200M. Japan; 200N. Africa; 200O. Science/Technology; 200P. History of Religions; 200Q. Theory of Histori- cal Science; 200R. Jewish History and Causa- sus; 200T. Southeast Asia; 200U. Psychology.

M200V. Advanced Historiography: Afro-American. (4) (Same as Afro-American Studies M200A.) Seminar, three hours. Limited to seniors. May be repeated for credit. P/N or letter grading.


200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chicanos. (4) Dis- cussion, three hours. Graduate survey of leading liter- ature in Chichano history, with emphasis on new meth- odological and theoretical approaches in the field.

201A-201U. Topics in History. (4 each) Seminar, three hours. Graduate courses involving reading, lectur- ing, and discussion of selected topics. Does not fulfill seminar requirements for Ph.D. degree. May be repeated for credit. When concurrently scheduled with course 191, undergraduates must obtain consent of instructor to enroll. 201A. Ancient Rome; 201C. Medieval; 201D. Early Modern Europe; 201E. Modern Europe; 201F. Russia/Eastern Europe; 201G. Britain; 201H. U.S.; 201L. Latin Ameri- ca; 201N. Near East; 201O. Russia; 201T. Japan; 201N. Africa; 201O. Science/Technology; 201P. History of Religions; 201Q. History of Theory; 201R. Jewish History; 201S. Armenia and Caucasus; 201T. Southeast Asia; 201U. Psychology.

202A-202B. Seminars: Comparative Modern Eco- nomic History. (4-8) Seminar, three hours. Course 202A is requisite to 202B. Designed for graduate stu- dents. Study of problems of modern economics in the 19th and 20th centuries, using a variety of methods as in- dustrialization, growth, demography, development, and economic change. In Progress (202A) and letter (202B) grading.

202A-202B. Social Theory and Comparative History. (4-8) (Same as Political Science M291A- M291B and Sociology M296A-M296B.) Colloquium, three and one-half hours every other week. Introduc- tion to historically rooted social theory and theoreti- cally sensitive history, following the program of the Center for Social Theory and Comparative History. Each course may be taken independently for credit.

203C. Theories in Cultural History. (4) (Same as Sociology M296C.) Discussion, three hours. Introduction to social, linguistic, semiotic, or other new inter- pretive theories and practices developed in other fields and applied to historical material. Letter grading.

M207. Seminar: Ancient Mesopotamia. (4) (Same as Near East M250.) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. May be repeated for credit.

211A-211B. Seminars: Armenian History. (4-4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.

212. Methods in Armenian Oral History. (4) (Formerly numbered C212.) Discussion, three hours. Limited to seniors. Introduction to social, linguistic, semiotic, or other new inter- pretive theories and practices developed in other fields and applied to historical material. Letter grading.

214. Topics in World History. (4) Discussion, three hours. Graduate seminar utilizing world-historical per- spective to examine variety of broad themes in hu- man history. Topics vary annually. Letter grading.

215A-215B. Seminars: Ancient History. (4-4) Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4-4) Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.
217. Sources and Handbooks of Medieval History. (4) Seminar, three hours. Preparation: reading knowledge of German or French. Introduction to types of modern source materials and the handbooks needed to use them.

218A-218B. Paleography I, II. (4-4) Seminar, three hours; discussion, three hours. Preparation: reading knowledge of Latin or French. History of the manuscript book from antiquity through the Carolingian renaissance, with emphasis on dating and localization as well as on proficiency in reading. (218B) History of the manuscript book from the Carolingian renaissance through the invention of printing, with emphasis on dating and localization as well as on proficiency in reading.

C219A. Early Medieval Intellectual History: Thought, Literacy, and Religion Circa 400 to 1000. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of ideas and means by which they were communicated in early Middle Ages. Concurrently scheduled with course C117A. S/U or letter grading.

C219B. Later Medieval Intellectual History: Thought, Literacy, and Religion Circa 1100 to 1500. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of evolution of ideas and means by which they were communicated in later Middle Ages. Concurrently scheduled with course C117B. S/U or letter grading.

CM220A. Interfaces: Transmission of Roman Literature. (4) (Same as Classics M220A.) Lecture, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and Renaissance and the uses made by Latin literature has been preserved. Concurrently scheduled with course C118A. S/U or letter grading.

C241A-241B. Seminars: Medieval History. (4-4) Seminar, three hours. Course 241A is requisite to 241B. In Progress (241A) and letter (241B) grading.

C242A-242B. Seminars: Medieval Intellectual History and History of Science. (4-4) Seminar, three hours. Course 242A is requisite to 242B. Selected problems from medieval and early modern philosophy, science, political theory, theology. In Progress (242A) and letter (242B) grading.

C255A. Seminars: Political Psychology. (4) (Same as Political Science M255A and Psychology M255A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

C256A-256B. Seminars: Psychology of History — Middle Ages. (4-4) Seminar, three hours. Course 256A is requisite to 256B. In Progress (256A) and letter (256B) grading.

C257A-257B. Seminars: English History — Modern History. (4-4) Seminar, three hours. Course 257A is requisite to 257B. In Progress (257A) and letter (257B) grading.

C258A-258B. Seminars: American Diplomatic History. (4-4) Seminar, three hours. Course 258A is requisite to 258B. In Progress (258A) and letter (258B) grading.

C260A-260B. Seminars: Native American History. (4-4) Seminar, three hours. Course 260A is requisite to 260B. In Progress (260A) and letter (260B) grading.

M250C. Native American Revitalization Movements. (4) (Same as Anthropology M250C.) 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 Dance, and Peyote Religion. Letter grading.

M256D. Native American Historical Demography. (4) (Same as Anthropology M256D.) Lecture, two hours; discussion, one hour. Examination of population history of Native Americans north of Mexico prior to and following contacts with Europeans, Africans, and others, circa 1492. Emphasis on number of American Indians and other Native Americans, their decline following European contact, and their recent resurgence. Letter grading.

C261A-261B. Seminars: Afro-American History. (4-4) Seminar, three hours. Course 261A is requisite to 261B. Social and political history of the Afro-American, including emphasis on development and structure of race relations in America; racial concepts and dilemmas, black and white. In Progress (261A) and letter (261B) grading.

C262A-262B. Seminars: Chicano History. (4-4) Seminar, three hours. Course 262A is requisite to 262B. In Progress (262A) and letter (262B) grading.

C263A-263B. Seminars: History of American West. (4-4) Seminar, three hours. Course 263A is requisite to 263B. In Progress (263A) and letter (263B) grading.

M264. History of American Education. (4) (Same as Education M264.) History of educational thought and of social forces impinging on American education from the 1880s to the present. Analysis of relation between these ideas and forces, and aims and practices of American education.

M265. Latin American Research Resources. (4) (Same as Information Studies M265 and Latin American Studies M265.) Seminar, three hours. General and specialized materials in fields concerned with Latin American studies. Techniques provide experience and competency required for future bibliographic and research sophistication as basis for enhanced research results.
266A-266B. Seminars: Colonial Latin American History. (4-4) Seminar, three hours. Course 266A is requisite to 266B. In Progress (266A) and letter (266B) grading.

M265C. Analyzing Historical Texts. (4) (Same as Linguistics M238.) 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.

267A-267B. Seminars: Latin American History. (19th and 20th Centuries) (4-4) Seminar, three hours. Course 267A is requisite to 267B. In Progress (267A) and letter (267B) grading.

M268A-M268B. Seminars: Recent Latin American History. (4) (Same as Latin American Studies 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.

275A-275B-275C. Colloquia: African History. (4-4-4) Seminar, three hours. Designed for all entering and continuing graduate students in African history. Sources examined include methodologies, historiographical traditions, historical interpretation, approaches to teaching, and research design. Forum for critical discussion of dissertation prospectuses and work in progress. Each may be taken independently for credit. S/U or letter grading.


282A-282B. Seminars: Chinese History. (4-4) Seminar, three hours. Course 282A is requisite to 282B. In Progress (282A) and letter (282B) grading.

285A-285B. Seminars: Japanese History. (4-4) Seminar, three hours. Course 285A is requisite to 285B. In Progress (285A) and letter (285B) grading.

M286. Japan in Age of Empire. (4) (Same as Anthropology M276 and Asian M292.) Seminar, three hours. Designed for graduate students. Since the late 19th century, Japan expanded its empire into East and Southeast Asia. Lecture of that period and array of anthropological studies conducted in Japan's colonies and occupied areas in this hardly explored area of study of colonialism. S/U or letter grading.

288A-288B. Seminars: South Asia. (4-4) Seminar, three hours. Course 288A is requisite to 288B. In Progress (288A) and letter (288B) grading.

289A-289B. Seminars: Southeast Asia. (4-4) Seminar, three hours. Course 289A is requisite to 289B. In Progress (289A) and letter (289B) grading.

291A-291B. Seminars: Jewish History. (4-4) Seminar, three hours. Course 291A is requisite to 291B. Studies in intellectual and social history of Jewish people from ancient times to modern period. In Progress (291A) and letter (291B) grading.

293A-293B. Seminars: History of Religions. (4-4) Seminar, three hours. Course 293A is requisite to 293B. In Progress (293A) and letter (293B) grading.

294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4-4) Seminar, three hours. Study of science integrated within matrix of religious belief commonplace in early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to political and economic change. S/U or letter grading.

295. Theories of Scientific Change. (4) Seminar, three hours. Historical and philosophical perspectives on science, focusing on rationality of scientific change and logic of scientific discovery. Readings and seminar-style discussions of such authors as Popper, Kuhn, Toulmin, Lakatos, Holton, Buchdahl, Feynman, and others.

M296. History of Statistics. (4) (Same as Statistics M245.) Seminar, three hours. History of statistics ranges over vast and diverse territory. Development of mathematical methods; philosophical, political, and social issues that were linked to their emergence and use. S/U or letter grading.

297A-297B. Seminars: History of Science. (4-4) Seminar, three hours. Course 297A is requisite to 297B. In Progress (297A) and letter (297B) grading.

M298. Interdisciplinary Studies in the 17th and 18th Centuries. (4) (Same as English M298.) Topics vary according to participating faculty. May be repeated for credit. S/U or letter grading.

M299. Interdisciplinary American Studies. (6) (Same as English M299.) Discussion, four hours. Readings, discussion, and papers on a common theme, team-taught by faculty from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors.

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 the University. May be repeated for credit. S/U grading.

490. Writing Workshop for Graduate Students. (4) Tutorial, three hours. Writing workshop on students’ papers-in-progress. Analysis and group discussion of rhetorical and stylistic principles, illustrated in students’ own and in professional historians’ work, help students improve their own writing. May be repeated once. S/U grading.

495. Teaching History. (4) Seminar, to be arranged. Preparation: graduate students. Required of all new teaching assistants. Lectures, readings, discussions, and practice teaching sessions within the structure of a seminar. Students receive unit credit toward full-time equivalence but not toward the nine-course requirement for M.A. degree. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Use. S/U or letter grading.

596. Directed Studies. (1 to 8) Limited to graduate students. Individual directed reading arranged with professor. May be repeated once. Number of times Ph.D. candidates may take this course is subject to consent of graduate studies committee. S/U or letter grading.

597. Directed Studies for Graduate Examinations. (1 to 8) Preparation: consent of graduate advisor and graduate dean. May be repeated for credit. S/U grading.


History/Art History

History/Art History / 357

Debora L. Silverman, Ph.D. (Art History, History)

Scope and Objectives

The interdisciplinary major in History/Art History allows students to study the relationship between art history and the history of society, politics, and culture.

Undergraduate Study

History/Art History B.A.

Lower division history and art history courses may be applied toward the general education requirements; a course taken to satisfy the American History and Institutions requirement may be applied toward the history section of the interdepartmental major. All courses must be taken for a letter grade.

Students wanting to confer with a counselor regarding program planning and major requirements should contact the history/art history counselor at (310) 825-3480.

Preparation for the Major

Required: History 1A, 1B, 1C; two courses from Art History 50, 51, 54, 57; one course from Art History 55A, 55B, 56A, 56B.

Transfer Students

Transfer applicants to the History/Art History 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 history of Western civilization, two art history courses in ancient, Renaissance and baroque, medieval, or modern art, and one non-Western art history 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: One course from History 97A through 97O or 100; one course from 191A through 191O or 197; and courses as indicated in the following groups:


Irene A. Bierman, Ph.D., Chair

Faculty Advisory Committee

Irene A. Bierman, Ph.D. (Art History)
Robert L. Brown, Ph.D. (Art History)
Ronald J. Mellow, Ph.D. (History)
Honors Program

The honors program is designed for History/Art History majors who are interested in carrying out an independent research project that culminates in an 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 History/Art History majors who have completed a minimum of four upper division art history courses with a 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 undergraduate counselor one term prior to beginning the honors program.

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

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

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Robert N. Watson, Ph.D., Chair

Faculty Advisory Committee
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Scope and Objectives

The Honors Collegium is an unusual educational alternative, with an interdisciplinary emphasis. 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. Many 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, which gives detailed course descriptions of current offerings, is available at http://www.college.ucla.edu/up/honors/.

Honors Collegium

Lower Division Courses

1. City on Edge: Fiction of Los Angeles. (5) (Not the same as course 1 prior to Fall Quarter 2003.) Seminar, four hours. Study of city of Los Angeles through examination of important and representative novels (and occasionally other media) that take the city as their subject as well as their setting. 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. History and Visual Culture from Engraving to Film and Television. (5) Seminar, three hours. Interdisciplinary look at relationship between visual imagery and historical developments, tracing evolution of visual culture in relationship to forms of political, social, and cultural authority in media from 17th-century engravings to post-World War II television. P/NP or letter grading.

4. Immigrants and American Dream. (5) (Not the same as course 4 prior to Fall Quarter 2003.) Seminar, three hours. Study of process of attaining the “American Dream” including analysis of different perspectives on immigration and assessment of success based on such measures as occupational achievement, home ownership, and political participation. P/NP or letter grading.

5. Representing Cleopatra: History, Drama, and Film. (5) (Not the same as course 5 prior to Fall Quarter 2003.) 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.

6. Historical Construction of Reality. (4) Seminar, three hours. Examination, through comparative analysis of various societies at various times, of phenomena that are taken for granted as natural but which are actually historically constructed, including perception (time and space) and hierarchy (race and gender). P/NP or letter grading.

8. Communication among Organisms. (4) Lecture, three hours; discussion, two hours. Study of communication among a variety of taxonomic groups ranging from single-celled organisms to plants, whales, and nonhuman primates. P/NP or letter grading.

9. Poverty, Inequality, and Shrinking Welfare State. (5) Seminar, three hours. Examination of social, historical, and political forces that have shaped public assistance from Great Depression of the 1930s through social upheavals of the 1960s, and conservative resurgence since — with goal of thinking critically about meaning of social welfare and citizenship. P/NP or letter grading.

10. Colonial Legacies: Childhood and Islam in Francophone Africa. (5) (Not the same as course 10 prior to Fall Quarter 2003.) Seminar, three hours. Through broad range of novels and films from Guinea, Cameroon, Senegal, and Mali, study of cultures of Francophone sub-Saharan Africa, including colonialism, polygamy, education, female circumcision, and racism. P/NP or letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 B.C.) to broad range of literary styles and diverse religious and philosophical movements through classical, medieval, and premodern period. P/NP or letter grading.
13. Fantastic Voyage: From Homer to “2001.” (5) (Not the same as course 20 prior to Fall Quarter 2003.) Seminar, three hours. Study of phenomenon of fantastic or imaginary voyage from Homer’s Odyssey to Stanley Kubrick’s 2001: A Space Odyssey. P/NP or letter grading.

14. Interaction of Science and Society. (4) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of societies, evolution of revolutionary ideas as modeled in Galileo, Darwin, and others, and selected contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. 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. Civil Rights, Women’s Rights, Human Rights. (5) Seminar, three hours. Investigation of lived history of rights, including context and implications of 14th Amendment, subsequent civil rights activism, women’s rights, internationalization of these notions in politics and law, and social movements. Satisfies Writing II requirement. Letter grading.

18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

20. What Is This Thing Called Science?: Nature of Modern Science. (5) (Not the same as course 20 prior to Fall Quarter 2002.) 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. 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. Short History of Science: Reading the Great Book of the Universe. (4) Seminar, four hours. Examination of key concepts of modern science throughout their historical development, including study of impact of scientific revolution and industrial revolutions on art, economy, environment, religion, and structures of society. P/NP or letter grading.

24. Three African Civilizations. (5) (Not the same as course 24 prior to Fall Quarter 2003.) Seminar, four hours; film viewing, two hours. Study of development of three major African civilizations through their arts, with focus on arts of Mali, Ethiopia, and Kongo from about 100 B.C.E. to the present. P/NP or letter grading.

25. Artificial Intelligence: Machines as People, People as Machines. (5) (Formerly numbered 20.) Seminar, three hours; laboratory, one hour. Programming knowledge not required. Examination of human cognitive abilities and study of different historical approaches to programming human cognitive abilities and behaviors into computers, with focus on problem solving. P/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Lecture/discussion, 10 hours. Limited to Freshman Summer Program students. Exploration of interdisciplinary dimensions of medical representa- tion, with special focus on cross-cultural 20th-century portrayals of the profession, including representations of doctor/patient relations, healthcare sites and circumstances, ageing, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.

27. Theories of Exchange: Social Life of Gifts and Commodities. (4) Seminar, three hours. Study of how creation, maintenance, and dissolution of social and political relations are manifested in exchange of gifts and/or commodities in different contexts and different societies. P/NP or letter grading.

28. Perils of Living in Space: Introduction to Space Weather. (Not the same as course 28 prior to Fall Quarter 2003.) Seminar, four hours. Preparation: high school calculus. Study of conditions in space that affect Earth and its systems, conditions that are consequences of behavior of sun, nature of Earth’s magnetic field and atmosphere, and our location in solar system. P/NP or letter grading.


31. Current Environmental Problems. (5) Lecture, discussion, four hours. Examination of current pressing environmental issues, including overpopulation, global pollution, loss of biodiversity, and toxic waste production and disposal. P/NP or letter grading.

32W. Creativity and Culture: Making Things New in the Arts, Humanities, Social Sciences, and Science. (5) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Study of creative acts of artists, writers, social scientists, and scientists in relation to their societies, cultures, disciplines, conventions, and art forms. Satisfies Writing II requirement. Letter grading.

33W. Art of Engagement. (5) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Cross-curricular, cross-cultural examination of literature, art, and film as a way of discovering how writers and artists treat conflict between art as something inward and psychological and personal, and art as a vehicle of social and political import. Satisfies Writing II requirement. Letter grading.

34W. Construction and Migration of Knowledge: Rhetoric and Media for Information Age. (5) Seminar, three hours; two hours. Enforced requisite: English Composition 3 or 3H. 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 nonprofessional readers; latter explains how ephemeral information becomes institutionalized. Satisfies Writing II requirement. Letter grading.

35. Scientific Method: Critical Inquiry into Questions of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presume to answer question of whether or not there is intelligent life in the universe but rather uses this question as a pedagogic tool to introduce central ideas, techniques, and limitations of the scientific method—what questions would need to be asked, what scientific knowledge would be needed, and what obstacles would have to be overcome just to address this question. P/NP or letter grading.

37A. Ethnicity, Gender, and Social Class in the U.S. and Other Societies. (4) Seminar, three hours. Study of the U.S. and other nations in terms of social class, gender, ethnicity, and absorption of immigrants, with emphasis on manipulation and analysis of data sets from census and survey data provided through instructional software. P/NP or letter grading.

37B. Ethnicity, Social Class, and Social Mobility in Los Angeles. (4) Seminar, three hours. Course 37A is not requisite to 37B. Study of Los Angeles in terms of social class, social mobility, ethnicity, and absorption of immigrants, with emphasis on manipulation and analysis of data sets from census and survey data provided through instructional software. P/NP or letter grading.

38W. Body-Mind Literacy. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H. Study of body, mind, and culture, with emphasis on writing, critical thinking, and practice. Satisfies Writing II requirement. Letter grading.

39. Early Modern French Culture in Film. (5) Seminar, three hours. Examination of films and texts, study of development of courtly culture in France from Renaissance to its demise in Enlightenment and its replacement with new ideas of nature, education, and civic virtue. P/NP or letter grading.

40W. Transnationalization of Cultural Stories across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and Coetzee’s Foe and the fairy tale as represented by Cinderella and its various cross-cultural remanifestations. Satisfies Writing II requirement. Letter grading.

42. Negotiating Conflicts. (5) (Formerly numbered Social Welfare 98D.) Seminar, three hours; fieldwork, one hour. Exploration of art and science of negotiations in addressing campus and community conflicts, with focus on positions and interests of disputants, cultural and political context of disputes, and tactics and skills to address conflicts. P/NP or letter grading.


44. Trail of Light. (4) Lecture, three hours; discussion, two hours. Study of our understanding of light, colors, and vision; physics of light from Newton to Einstein; physics, chemistry, and biology of vision in relation to color; and appearance of light in art. P/NP or letter grading.

45W. Writing about Life Sciences. (5) Seminar, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Life Sciences 2 (may be taken concurrently). Study and practice of writing in life sciences, including popular, literary, and scientific discourse. Satisfies Writing II requirement. Letter grading.

47. Literature of Colonization and Colonization of Literature. (4) Seminar, three hours. Examination of various facets of interaction between Western and non-Western cultures since period of high imperialism beginning in the mid-19th century, with focus on the novel as prism through which to observe cultural meeting and exchange and their consequences. P/NP or letter grading.

48. Politics of Reproduction. (4) Seminar, three hours. Examination of complex relations between individual, societal, and global contexts and how they shape and reflect reproductive practices, public policy, and exercise of power. P/NP or letter grading.

49. Evidence in Law, Science, History, and Journalism. (4) Seminar, four hours. Rigorous study of various facets of interaction between Western and non-Western cultures since period of high imperialism beginning in the mid-19th century, with focus on the novel as prism through which to observe cultural meeting and exchange and their consequences. P/NP or letter grading.
50W. Writing Science. (6) Seminar, four hours. En-forced requisite: English Composition 3 or 3H. Study and practice of writing in a popular science way that integrates sophisticated understanding of science with humane tradition of writing arts; study in-cludes writings by journalists and scientists on variety of topics. Satisfies Writing II requirement. Letter grad-ing.

53. American Folk Music, Protest, and Identity. (5) Seminar, three hours. Study of American folk music as prism to investigate more general relationships among cultural boundaries such as musical genres and social categories (race, ethnicity, nation, and generation). 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 so-cial, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grad-ing.

56. Language as a Window to the Mind. (4) Lect-ure, four hours; discussion, one hour. Study of topics in language and the mind, including language acquisi-tion in the child, language representation in the brain, relationship between language and other men-tal abilities, and autonomous nature of language as a system of knowledge. P/NP or letter grading.

59W. Literature and Culture of the American South. (6) Seminar, writing (optional), two hours. Enforced requisite: English Composition 3 or 3H. Examination of historical imagination as it is expressed in such writers as William Faulkner, Allen Tate, Flannery O’Connor, Richard Wright, and Zora Neale Hurston; in Civil War and WPA/FSA photogra-phy; and in Southern rhetoric and political documen-tary. Satisfies Writing II requirement. Letter grading.

60. Discovering and Explaining Anomalies of En-glish. (5) Lectures, writing (required in first year), two hours. Study of linguistic anomalies, historical facts of English that brought about these irregularities, and artificiality of notion of “standard English.” P/NP or letter grading.

62. Community and Self-Interest in History of American Culture. (6) Lecture, four hours; discus-sion, one hour. Exploration of historical origins of the frequently contradictory values which inform American thought and culture: hierarchy and equality, institution-al constraints and voluntarism, collective sense of mission and belief in the autonomous individual. P/NP or letter grading.

64. Neuroscience and Psychology of Art and Biol-ogy of Aesthetics. (5) Seminar, three hours. Inter-disciplinary approach to study of premise that beauty, whether of faces, art works, or other subjects, is pro-cessed by brain and can be understood as neurologi-cal and psychological phenomenon. P/NP or letter grading.


69. Artificial Life and Evolutionary Design: Theory and Practice in Multiagent Modeling. (5) Seminar, five hours. No special mathematical or computer knowledge required. Study of artificial life, artificial in-telligence, virtual environments, and evolutionary computation through both literature on simulations and practical engagement in simulations themselves. P/NP or letter grading.

70A. Genetic Engineering in Medicine, Agricul-ture, and Law. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for Life Sciences 3 or 4. Study of recent breakthroughs in genetic and sci-entific study of genetic engineering in medicine, agriculture, and law, including examination of social, ethi-cal, and legal issues raised by new technology. P/NP or letter grading.

70AL. Gene Discovery Laboratory. (5) Seminar, three hours; laboratory, five hours. Recommended requisite: course 70A. Laboratory work in genomics research and seminar discussion that apply experi-mentally concepts and techniques taught in course 70A. P/NP or letter grading.

70C. Culture, Ethnicity, Race, and Development: Multimedia and Multidisciplinary Approach. (5) Lecture, four hours; discussion, one hour. Study of cultural, historical, political, and psychological phenomenon. P/NP or letter grading.

71. Cultural Heritage and Virtual Reality. (5) Semi-nar, four hours. Study of application of virtual reality technology to field of cultural heritage, using three-di-mensional computer models of such sites as Cathedra-l of Santiago de Compostela, Colosseum, and Second Temple in Jerusalem. P/NP or letter grading.

72. From Genes to Cells: Simple Science with Complex Implications. (4) Lecture/discussion, three hours; lecture, one hour. Examination of various aspects of minority languages in three countries abroad and their societal impact. P/NP or letter grading.

73. Elementary Particles in the Universe. (4) Lect-ure, two hours; discussion, 90 minutes. No special mathematical knowledge required. Examination of el-ementary particle physics, including status of its cur-rent study in laboratories around the world and its role in assessing the early evolution of the universe. P/NP or letter grading.

77. Thinking about Rights. (5) (Not the same as course 19H.) Lecture, three hours. Examination of character of rights, who is ca-pable of exercising rights, and scope and content of rights as they have been debated and fought over in theoretical forums and political arenas for three cen-turies. P/NP or letter grading.

78. Genomics and Boundaries of Self. (5) Semi-nar, three hours. Study of impact that knowledge of entire human genome sequence has on our concepts of ourselves and our place in biological universe. P/NP or letter grading.

79. Genome: Blueprint, Controversy, Destiny. (5) Lecture, three hours; laboratory, three hours. Not open to students with credit for Life Sciences 3 or 4. Laboratory-based exploration of topics related to Hu-man Genome Project, including DNA coding, impact of Human Genome Project on society, use of DNA in forensic analysis, designer genes, and genomes as basis of new insights into evolution. P/NP or letter grading.

80. Genomics and Boundaries of Self. (5) Semi-nar, three hours. Study of impact that knowledge of entire human genome sequence has on our concepts of ourselves and our place in biological universe. P/NP or letter grading.

81. Eastern Christianity in Comparative Perspec-tive: History, Doctrine, Culture. (5) Lecture, two hours; discussion, two hours. Exploration of philo-sophical and metaphysical beliefs of Eastern Chris-tianity, comparing and contrasting Eastern churches to those that dominate in the West and examining how discussions of ecclesiastical law have flowed within broader Judeo-Christian tradition. P/NP or letter grading.

82. Community and Labor Development from Ground Up. (4) Lecture, three hours; discussion, one hour. Introduction to practical applications of commu-nity development and outreach efforts in Los Angeles area, with projects from Community Outreach Part-nership Center within School of Public Policy and So-cial Research. P/NP or letter grading.

83W. Politics and Rhetoric of Literature. (6) Semi-nar, four hours; writing laboratory, two hours. En-forced requisite: English Composition 3 or 3H. Examini-nation of relationship among politics, rhetoric, and lit-erature. Study of literary works from classical times to the present, broadening into general discussions of development of political discourse in Western thought, particularly conflict between self and state, between ideology and the practical business of living. Satisfies Writing II requirement. Letter grading.

84. 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.

85. Mestizaje and Memory in Americas. (5) Semi-nar, four hours. Examination of texts from colonial Spanish America and 20th-century North America to investigate how authors in these contexts have struggled with being between two cultures. P/NP or letter grading.

86. Psychology of Fear. (5) (Formerly numbered 79W.) Seminar, three hours; fieldwork, one hour. Examination of phobias, including inquiry into how people are distressed by intense fear, examina-tion of structures and processes of irrational fears, and discussion of courage and fear reduction strate-gies. P/NP or letter grading.


89. Genes, Genomics, and Internet. (4) Lecture, two hours; computer laboratory, three hours. New sci-ence of genomics (computer analysis of genetic infor-mation), dealing with issues related to basic genetics, medicine, biotechnology, evolution, information tech-nology, and their societal impact. P/NP or letter grading.

92. Genes, Genomics, and Internet. (4) Lecture, two hours; computer laboratory, three hours. New sci-ence of genomics (computer analysis of genetic infor-mation), dealing with issues related to basic genetics, medicine, biotechnology, evolution, information tech-nology, and their societal impact. P/NP or letter grading.

93. Historical Roots of Healing Arts. (4) Seminar, four hours. Not open to students with credit for Psychi-atria 194. Introduction to traditions, practices, goals, and myths of healing professions in Western medicine. P/NP or letter grading.


97. Issues in American Foreign Policy: Methodol-ogy of Assessment. (4) Lecture/debate, three hours; discussion, one hour. Exploration in debate format of wide range of views on contemporary for-eign policy issues to train students how to discern the ideological origins of policy arguments. Examination of material in major foreign policy journals. P/NP or letter grading.

Upper Division Courses

101A. Student Research Forum. (2) (Formerly numbered 101.) Lecture, one hour; workshop, two hours. Corequisite: course 99. Designed to promote broad and deep understanding of university research, including literature lectures on research and work-shops on grant writing, Internet searches, research abstracts, and laws and regulations governing re-search. P/NP grading.
M102. Culture, Media, and Los Angeles. (6) (Same as Afro-American Studies M102 and Asian American Studies M160H.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

103. Scientific Research in Industrial Growth, and Social Policy. (5) 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.

104. Trojan War: Antiquity and Afterlife. (5) (Not the same as course 104 prior to Fall Quarter 2003.) Seminar, three hours. Focus on Troy as locale for ancient and modern imagination in poetry, archaeology, and historical fantasy. P/NP or letter grading.

105. Client-Based Program Evaluation. (5) Seminar, three hours; fieldwork, three hours. Service learning course for undergraduate students and community partners, through which students learn theory and practice of program evaluation. Community partners include Healthy Kids Coalition, Perinatal Outreach, Children's Dental Health Clinic, and others. P/NP or letter grading.

106. Imaginary Women. (4) (Same as Women's Studies M106.) Seminar, four hours. Designed for juniors/seniors. Study of four female cultural archetypes — abscissing 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. Porsche: Rise of Modern Capitalism in Late Medieval Italy. (4) Seminar, three hours. Through medieval texts and representations of the human figure in art, examination of rise of merchant and banking class in late medieval Italy, focusing on ideological and economic issues rooted in context for commerce, prohibition of usury, ideal of the nobility, and choice between Earth and sky. P/NP or letter grading.


109. Marxist and Post-Marxist Approaches to Cultural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of culture, including classic texts, theoretical and empirical works, and post-Marxist roots of postmodernism. P/NP or letter grading.


113. Work, Gender, and Race in America. (5) Seminar, three hours; fieldwork, two hours. Exploration of how shifts from manufacturing to service work and from local to global markets have differentially affected men in the U.S. for workers assessed by gender, race, ethnicity, and economic status. P/NP or letter grading.


117. Resistance to Evil: Organized Resistance to Nazis in Occupied Europe. (4) Seminar, three hours. Resistance is not a moral or philosophical issue, but a sociological one. Resistance is possible if specific historical circumstances and social relations that enable ordinary men and women to oppose their oppressors. Examination of this premise through analysis of organized resistance to Nazi occupation in Europe. P/NP or letter grading.

117L. Resistance to Evil: Organized Resistance to Nazis in Occupied Europe. (2) Seminar, two hours. Corequisite: course 117. Optional seminar with reading of texts in Dutch, Flemish, and some French selected from works that relate directly to material covered in course 117. P/NP or letter grading.

M118. Roots of Patriarchy: Ancient Goddesses and Heroines. (4) (Same as Women’s Studies M128.) Lecture, three hours. Examination of ancient goddesses and heroines — European, Neolithic, Near Eastern, Celtic, Scandinavian, Balto-Slavic, Indo-Iranian, and Greco-Roman — using translations of ancient texts, archaeological evidence, and feminist methodology in order to discover implications of ancient patriarchy on modern society. P/NP or letter grading.

M119. Nuclear Weapons: Critical Decisions. (4) (Same as Environment M165, Public Policy M116, and Political Science M139B.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons development, including decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. 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 the age is examined in musical and dramatic performance. Letter grading.


133. Community-Based Research: Theory and Practice. (5) Formerly numbered 78.) Seminar, three hours. Community-based research, in collaboration with community organizations, on theme of client education, activism, and advocacy. Offered in summer only. P/NP or letter grading.
137. Political Satire: Offensive Art. (5) Seminar, three hours. Study of political satire in various societies and 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/NP or letter grading.

138. Disease and Human Condition. (5) Seminar, three hours. Exploration of scientific characteristics and historical manifestations of group of diseases that have shaped civilization, discussion of how historical manifestations of each disease are embedded in social and economic conditions of its time. P/NP or letter grading.

139. African Americans and Africa in Perspective. (5) Seminar, four hours. Study of saga of how African Americans have struggled to reattach their identity to Africa and Africans in both historical and contemporary perspectives. P/NP or letter grading.

140. Dominants and Subordinates in Social Psychology of Privilege and Oppression in Public Education. (6) Lecture, four hours; discussion, one hour; tutoring, three hours. Study of social arrangements and temporary inequalities in contemporary American public school, showing how such entrenched inequalities tend to become permanent. Field component included. P/NP or letter grading.


143. From Latin America to the U.S.: Immigration and Latino Identity. (4) (Same as Chicana and Chicano Studies M124.) Lecture, three hours. Overview of immigration in the 20th century, examining social, political, and economic contexts out of which different waves of Latin American immigration to the U.S. has occurred. Letter grading.

144. Stigma: Anthropology of the Dangerous Other. (4) (Formerly numbered M144.) Seminar, three hours. In cross-cultural perspective, analysis of apparently common causes and consequences of diverse forms of social inequality in which culturally ascribed stigma is common factor. P/NP or letter grading.


147. Feminism Around the World: Past and Present. (5) Seminar, three hours. Historical and global perspective on variety of feminist movements in the world, including their similarities and differences. P/NP or letter grading.

148. Simulating Society: Exploring Artificial Communities. (5) (Formerly numbered M189A.) (Same as Sociology M118.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/NP or letter grading.

149. Culture: What Makes It Work. (5) Seminar, four hours. Examination of some basic questions that arise in study of what we mean by culture, including new theory and methods, using multiagent modeling, that allows us to do quasi-experimental research into nature of culture. P/NP or letter grading.

150. Models and Modeling in Anthropology. (4) (Same as Anthropology M118B.) Lecture, three hours. Modeling from both individual and social structure viewpoints. Introduction to four groups of models, along with ethnographic examples — decision tree models, indifference curve and marginal cost models, adaptation and learning models, and information diffusion models. Letter grading.

151. American Jews and Israel in Mutual Perspective. (4) Seminar, three hours. Examination of relationships between Israel and Jews in the U.S., with emphasis on locating two communities in Jewish history and political impact of this relationship. Offered mutually with parallel course at Tel Aviv University, including shared bulletin board and chat room. P/NP or letter grading.

152. Collapses of Past Societies and Their Lessons for Our Own Future. (5) (Formerly numbered 152.) (Same as Geography M153.) Lecture, two hours; discussion, one hour. Examination of several sets of preindustrial societies that met varying fates (Polynesians on Pacific islands, societies of Southwestern U.S., and Vikings on North Atlantic islands), as background to examination of how some modern societies are coping with their environmental impacts. P/NP or letter grading.

153. International Flash Points. (5) Seminar, three hours. Debate-style seminar concentrating on explosive contemporary conflicts and international affairs, including North and South Korea, Iran and Pakistan, Iran and Palestinians, Iraq, Colombia, and Congo and Rwanda. P/NP or letter grading.

154. Interpreting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) (Same as Theater M112.) 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 have evolved. Attendance at approximately five designated performances/events required. P/NP or letter grading.

155. The U.S. and World Post-9/11. (5) Lecture, two hours; discussion, two hours; tutorial, 90 minutes every other week. Survey of major questions confronting American foreign policy in period since September 11, 2001, in course organized in conjunction with series of public lectures on this topic. P/NP or letter grading.

156. Consciousness and Brain. (5) Seminar, three hours. Examination of philosophical and neuroscientific aspects of how brain produces conscious experience, including consideration of whether consciousness exists, what is meant by intentional experience, and role of language and self in consciousness. P/NP or letter grading.

157. International Relations of Middle East. (4) (Same as Political Science M132B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945. P/NP or letter grading.

163. Civic Engagement and Public Use of Knowledge. (5) (Formerly numbered 63.) Seminar, three hours. Review and analysis of research and literature and national discussion of role of citizens in modern-day democracy and balance or tension between personal gain and public good, concluding with discussion of civic education in higher education and implications for lives of students. P/NP or letter grading.

191SA. Variable Topics in California Politics. (4) Seminar, three hours. Limited to UC Center Sacramento Program students. Designed to sharpen student methodological understanding of policy issues. Topics vary by term, but use framework encompassing basic principles of economics, political science, and sociology to contribute to a better understanding of how government and politics affects public life in California. 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 findings and important research articles in humanities and social sciences. Weekly research reports and presentations by McNair students. Presentations by program faculty and other leading researchers. P/NP grading.

194SA. UC Center Sacramento Research Group Seminar. (4) Seminar, three hours. Corequisite: course 195SA. Limited to UC Center Sacramento Program students. Development of professional skills in areas of writing, analysis, research, and oral presentation, and of understanding of policies and political processes in California. Research paper based on analysis of topic related to area of student academic interest or to internship area required. P/NP or letter grading.

195SA. UC Center Sacramento Internship. (5) Tutorial, one hour; fieldwork, 24 to 32 hours. Limited to UC Center Sacramento Program students. Internship in workplace setting such as assembly member office, state senator office, governor’s office, judicial branch office, state agencies, or nonprofit organization. Students read academic journal articles related to primary policy topics associated with internship and maintain weekly journals that reflect and assess their experiences. Students meet weekly with faculty mentors to review their progress, set goals for participation and achievement, and discuss problems that may arise. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 14 units completed in Honors Collegium with a grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research writing tutorial under supervision of one of the Honors Collegium courses in order to pursue in greater depth a significant topic from one of the collegium courses. P/NP or letter grading.
Human Genetics

Upper Division Courses

CM122. Mouse Molecular Genetics. (2) (Same as Microbiology CM122.) Lecture, two hours; discussion, one hour. Requisites: Life Sciences 3, Emphasis on use of mouse genetic approach to studying fundamental biological questions. Topics include mouse genome and functional genomics, mutagenesis screening and cloning of disease genes, transgenesis and its applications, developmental biology, stem cell biology, neurobiology, and modeling human genetic disorders. Reading materials include original papers and reviews. Concurrently scheduled with course CM222. P/NP or 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 C244. P/NP or letter grading.

CM153G. Mammalian Molecular Structure. (4) (Same as Biological Chemistry CM153G and Chemistry CM153G.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 110A, 153A, 153B, 153C, 156. Chemical, physical, and genetic properties of nucleic acids. Structure, cloning, and analysis of DNA; biosynthesis and processing of RNA; biosynthesis, purification, structure, and analysis of proteins; correlation of structure and biological properties. Laboratory research is emphasized. Conceptual approaches to medically related biological problems are employed, frequently with the aid of automation and advanced imaging techniques, toward the goal of disease prevention, control, and eradication methods such as gene therapies. Coursework acquaints students with the most current literature and trains students in critical thinking, experimental design, and the ability to anticipate future developments.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdn.et.ucla.edu. 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 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.

M207A. Theoretical Genetic Modeling. (4) (Same as Biomathematics M207A and Biostatistics M272.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biomathematics M207B and Biostatistics M237.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 110A, 110B. Methods of computer-oriented genetic analysis. Topics may include segregation analysis, parametric and nonparametric linkage analysis, quantitative methods, and phylogenetics. 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.


CM222. Mouse Molecular Genetics. (2) (Same as Microbiology CM222.) Lecture, two hours. Recommended requisite: course CM224. Emphasis on the use of mouse genetic approach to studying fundamental biological questions. Topics include mouse genome and functional genomics, mutagenesis screening and cloning of disease genes, transgenesis and its application in developmental biology, stem cell biology, neurobiology, and modeling human genetic disorders. Reading materials include original papers and reviews. Concurrently scheduled with course CM122. S/U or letter grading.

236A. Advanced Human Genetics. (4) (Formerly numbered 236B.) Lecture, three hours. Requisites: courses CM248, CM253. Advanced topics in human genetics related to Mendelian disease, molecular genetics, and relevant technologies. Topics include cyto- genetics, genomics, proteomics, positional cloning, bioinformatics, gene therapy, and developmental genetics. Reading materials include original research papers and reviews. Letter grading.

236B. Advanced Human Genetics. (4) Lecture, three hours. Requisites: courses 236A, CM248, CM253. Advanced topics in human genetics related to complex genetic traits and common diseases, with emphasis on biostatistics and mathematical modeling. Reading materials include original research papers and reviews. 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 C144. S/U or letter grading.

CM248. Molecular Genetics. (4) (Same as Biological Chemistry CM248, Microbiology CM248, and Molecular, Cell, and Developmental Biology CM248.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course CM153G or Chemistry CM153G. Molecular genetics of four systems: bacteria, yeast, Drosophila, and mouse/humans. Concurrently scheduled with course CM267A. Letter grading.


CM178. Molecular Genetics. (4) (Same as Biological Chemistry CM178, Microbiology CM178, and Molecular, Cell, and Developmental Biology CM178.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course CM153G or Chemistry CM153G. Molecular genetics of four systems: bacteria, yeast, Drosophila, and mouse/humans. Concurrently scheduled with course CM248. 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 inde- pendent research project under instructor supervi- sion. P/NP or letter grading.

Graduate Courses

M203. Stochastic Models in Biology. (4) (Same as Biomathematics M203.) Lecture, four hours. Requisite: Mathematics 170A or equivalent experience in probability. Mathematical description of biological re- lationships, with particular attention to areas where conditionality or deterministic models are inadequate: Examples of stochastic models from genetics, physi- ology, ecology, and a variety of other biological and medical disciplines. S/U or letter grading.

M252. Seminar: Advanced Methods in Computational Biology. (2) (Same as 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.

CM256. Human Genetics. (4) (Same as Microbiology CM256 and Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours; discussion, two hours. Requires: Life Sciences 3, 4. Strongly recommended: Molecular, Cell, and Developmental Biology 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. Letter grading.

M260. Bioinformatics and Genomics. (4) (Same as Chemistry CM260.) Lecture, three hours; discussion, one hour. Genomics and bioinformatics results and methodologies, with emphasis on concepts behind rapid development of these fields. Focus on how to think genomically via case studies showing how genomics questions map to computational problems and their solutions. S/U or letter grading.


M278. Statistical Analysis of DNA Microarray Data. (4) (Same as Biostatistics M278.) Lecture, three hours. Requires: Biostatistics 200C. Instruction in use of statistical tools used to analyze microarray data. Structure corresponds to analytical protocol an investigator might follow when working with microarray data. S/U or letter grading.

282. Human Genetics Seminar and Journal Club. (2) Seminar, 90 minutes; discussion, 90 minutes. Limited to graduate students. Participation and presentation in weekly journal club meeting whose topics reflect one of the talks in Human Genetics Seminar Series during following week. Attendance and production of short written report required. S/U grading.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. Individual study or research for graduate students. May be repeated for credit. S/U grading.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Individual study for M.S. comprehensive examination or Ph.D. qualifying examinations. May be repeated for credit. S/U grading.


**Indo-European Studies**

**Interdepartmental Program College of Letters and Science**

UCLA
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(310) 825-4171
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http://www.humanet.ucla.edu/pies/home.html

Stephanie W. Jamison, Ph.D., Chair

Faculty Advisory Committee

Raimo A. Antilla, Ph.D. (Linguistics)
Vyacheslav V. Ivanov, Ph.D. (Slavic Languages and Literatures)
Stephanie W. Jamison, Ph.D. (Asian Languages and Cultures)

Joseph F. Nagy, Ph.D. (English)
Christopher M. Stevens, Ph.D. (Germanic Languages)
Brent H. Vine, Ph.D. (Classics)

**Scope and Objectives**

The prime aim of the interdisciplinary Indo-European Studies Program is the integral study of Indo-European culture, based on comparative linguistics, archaeology, social structure, and religion. The Ph.D. in Indo-European Studies is offered with two alternative major emphases: Indo-European linguistics and Indo-Iranian or other specialized language area studies.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degree**

The Indo-European Studies Program offers the Doctor of Philosophy (Ph.D.) degree in Indo-European Studies.

**Indo-European Studies Lower Division Course**

**M70. Origin of Language.** (5) (Same as Communication Studies M70 and German 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 the brain, and science of language, including physiology of speech, phonetics, and comparative reconstruction. Letter grading.

**Upper Division Courses**

131. European Archaeology from the Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in the 7th millennium B.C. to beginning of Bronze Age in the 3rd millennium B.C. P/NP or letter grading.

132. European Archaeology: Bronze Age. (4) Requires: course 131. Survey of European cultures from around 3000 B.C. to the period of destruction of the Mycenaean culture about 1200 B.C. Aegean and rest of Europe.

M150. Introduction to Indo-European Linguistics. (5) (Same as Linguistics M150.) Lecture, four hours. Recommended requisite: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolinguistic contexts; nature of reconstructed Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

C160. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: familiarity with at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and reconstruction of their common sources. Topics include deities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with other traditions; literary continuations of mytohpoetic material. Concurrently scheduled with course C260. P/NP or letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged.

**Graduate Courses**


250A-250B. European Archaeology. (4-4) Seminar, three hours. Studies in ancient European archaelogical materials and their relationship to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter grading.

C260. Indo-European Comparative Mythology and Poetics. (4) (Formerly numbered 260.) 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 deities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with other traditions; literary continuations of mytohpoetic material. Concurrently scheduled with course C160. S/U or letter grading.
Related Courses

Ancient Near East (Near Eastern Languages)
160. Origins of Agriculture
161. Archaeology of Prehistoric Mesopotamia
260. Seminar: Ancient Near Eastern Archaeology
261. Practical Field Archaeology

Anthropology
112. Old Stone Age Archaeology
C115R. Strategy of Archaeology
183. History of Archaeology

Archaeology
C259. Fieldwork in Archaeology

Armenian (Near Eastern Languages)
230A-230B-230C. Elementary Classical Armenian
231A-231B-231C. Intermediate Classical Armenian
232A-232B-232C. Advanced Classical Armenian

Classics
166A. Greek Religion
166B. Roman Religion
168. Comparative Mythology
190. Introduction to Classical Linguistics
185. Origins and Nature of English Vocabulary
230A-230B. Language in Ancient Asia Minor
251A. Seminar: Classical Archaeology — Aegean Bronze Age
260. Topics in Ancient Religion
268. Seminar: Comparative Mythology

English
111D. Celtic Mythology
111E. Survey of Medieval Celtic Literature
111F. Celtic Folklore
211. Old English
216A-216B. Old Irish
217A-217B. Medieval Welsh
218. Celtic Linguistics
263. Celtic Literature

German (Germanic Languages)
230. Survey of Theory in Historical Linguistics
231. Gothic
232. Old High German
233. Old Saxon
252. Seminar: Historical and Comparative Germanic Linguistics

Greek (Classics)
240A-240B. History of the Greek Language
242. Greek Dialects and Historical Grammar
243. Mycenaean Greek

Iranian (Near Eastern Languages)
169. Civilization of Pre-Islamic Iran
170. Religion in Ancient Iran
181A-181B. Introduction to Modern Iranian Studies
M222A-M222B. Vedic
M230A-M230B. Old Iranian
231A-231B. Middle Iranian

Latin (Classics)
240. History of the Latin Language
242. Italic Dialects and Latin Historical Grammar

Linguistics
103. Introduction to General Phonetics
110. Introduction to Historical Linguistics
120A. Phonology I
120B. Syntax I

Old Norse Studies (Germanic Languages)
C140. Viking Civilization and Literature
151. Elementary Old Norse
152. Intermediate Old Norse
245A. Germanic and Scandinavian Mythology

Semantics (Near Eastern Languages)
140A-140B. Elementary Akkadian
141. Advanced Akkadian
220A-220B. Ugaritic

Slavic (Slavic Languages)
179. Baltic and Slavic Folklore and Mythology
201. Introduction to Old Church Slavic
202. Introduction to Comparative Slavic Linguistics
241A-241B. Advanced Old Church Slavic
242. Comparative Slavic Linguistics
251. Introduction to Baltic Linguistics

South Asian (Asian Languages)
110A. Elementary Sanskrit
110B. Intermediate Sanskrit
110C. Advanced Sanskrit
115. Readings in Sanskrit
M222A-M222B. Vedic
230. Selected Readings in Sanskrit Texts
234A-234B. Introduction to Panini’s Grammar
236A-236B. Pali and Prakrits

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 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://www.gdnet.ucla.edu. 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 Information Studies offers the Master of Library and Information Science (M.L.I.S.) degree and the Doctor of Philosophy (Ph.D.) degree in Library and Information Science. Two concurrent degree programs (Library and Information Science M.L.I.S./History M.A. and Library and Information Science M.L.I.S./Management M.B.A.) and an articulated degree program (Library and Information Science M.L.I.S./Latin American Studies M.A.) are also offered.

INFORMATION STUDIES

Graduate School of Education and Information Studies

UCLA

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102B GSEIS Building
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Virginia A. Walter, Ph.D., Chair

Professors

Christine L. Borgman, Ph.D. (Presidential Professor of Information Studies)
Anne J. Gilliland-Swetland, Ph.D.
Leah A. Lievrouw, Ph.D.
Beverly P. Lynch, Ph.D.
Mary Niles Maack, D.L.S.
John V. Richardson, Ph.D.
Virginia A. Walter, Ph.D.

Professors Emeriti

Page Ackerman, B.A., B.S.L.S.
Marcia J. Bates, Ph.D.
Robert M. Hayes, Ph.D.
Murtha Baca, Ph.D.

Associate Professors

Philip E. Agre, Ph.D.
Clara Chu, Ph.D.
Jonathan Furner, Ph.D.
Gregory H. Leazer, D.L.S.

Assistant Professors

Jean-Francois Blanchette, Ph.D.
Ramesh Singhal, Ph.D.
Steven Ricci, M.F.A., Ph.D.
Ethelene Whitmire, Ph.D.

Lecturers

Jacqueline Ayala, M.L.I.S.
Murtha Baca, Ph.D.
Stuart Biegel, J.D.
Keri S. Botello, M.L.S., Ph.D.
Lynn Boyden, M.L.S.
David Cappoli, M.L.S.
Michael Cart, Ph.D.
Chris Chandler, M.A.U.P.
Anita Sundaram Coleman, Ph.D.
Mahnaz Ghaznavi, M.L.I.S.
Michael Gorman
Esther S. Grassian, M.L.S.
Joan Kaplowitz, Ph.D.
Penny Markay, M.S.L.S.
Elizabeth Martinez, M.S.L.S
Victoria McCargar, M.L.I.S.
Susan McGlamery, J.D., M.L.I.S.
Stacey McKeever, M.L.I.S.
Cynthia L. Medialilla, Ph.D.
Elaine Meyers, M.L.S.
Teresa Portilla Omidsalar, M.L.S.

INFORMATION STUDIES / 365
Information Studies

Lower Division Courses

10. Fundamentals of Information Search and Evaluation. (4) Lecture, two hours; discussion, two hours. Introduction to library and World Wide Web research skills for university-level courses. Thorough introduction to University of California online resources, searching techniques, evaluation of resources, and bibliographic preparation. Letter grading.

20. Introduction to Information Studies. (4) Lecture, four hours. Survey introduction to field of information studies, including nature and structure of information, literacies, information in culture, communities, and organizations, information institutions, industries, and markets, and economic and political roles of information and information technology. Letter grading.

30. Information Technology in Society. (4) Lecture, four hours. Introduction to key social, political, economic, and legal issues related to information and information technology in the U.S. and internationally. Relation of information technologies to other systems, including sciences, engineering, business, and mass media. Letter grading.

Upper Division Courses

100. Perspectives on Literacy. (4) Lecture, two hours; discussion, two hours. Designed for sophomores/juniors/seniors. Open to M.L.I.S. students and to graduate students from other schools/departments. Interdisciplinary study of literacy as a historical, social, and political issue. Topics include culture and literacy, historical development of literate societies, social definitions of literacy, literacy campaigns, literacy as a national and local policy issue. Letter grading.

110. Information Resources and Libraries. (4) Lecture, one hour; discussion, two hours; laboratory, one hour. Designed for sophomores/juniors/seniors. Not open for credit to M.L.I.S. students. Introduction to bibliographic and information resources and relevant research methodology, covering both general and specialized "materials." Designed to facilitate knowledgeable use of libraries and efficient retrieval of information. Some sections focus on specific subject areas (such as science and technology). P/NP or letter grading.

111A-M111E. Ethnic Groups and Their Bibliographies. (4 each) Lecture, four hours. Introduction to bibliographical and research tools and methods for students with interests in ethnic groups. Sections on other ethnic groups. Offered in collaboration with the several centers for ethnic studies. May not be repeated for credit. P/NP or letter grading.

111A. American Indian History and Culture; 111B. African American History and Culture; 111C. Latino History and Culture. (Formerly numbered 111C.) (Same as Chicana and Chicano Studies M112.)

111D. Asian American History and Culture; 111E. Jewish History and Culture. (Same as Jewish Studies M111E.)

Graduate Courses

200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which information and knowledge are created, integrated, disseminated, organized, used, and preserved. Topics include 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 to discuss, learn, and understand ethical challenges of multicultural information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. S/U or letter grading.


208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation: one inferential statistics course. Survey of current theory, method, and empirical studies at intersection of scholarly communication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic form, or other media. Letter grading.


220. Design of Library and Information Services. (4) Lecture, two hours; discussion, two hours. Principles and methods for planning and designing user-driven library and information services. Principles and methods for assessing information needs of designated populations and for designing services that meet those needs. Letter grading.

225. Latin American Research Resources. (4) (Same as History M265 and Latin American Studies M200.) Discussion, three hours. General and specialized materials in fields concerned with Latin American studies. Library research techniques provide experience and competency required for future bibliographic and research sophistication as basis for enhanced research results. S/U or letter grading.

227. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multiethnic and multilingual society. Understanding role of information institutions in promoting cultural diversity and preserving cultural heritage. Letter grading.

228. Measurement and Evaluation of Information Systems and Services. (4) Lecture, two hours; discussion, two hours. Preparation: one research methods course. Recommendations on library automation course. Information systems and services from points of view of their cost and effectiveness in meeting desired objectives. Review of principles of costing. Study of literature in which techniques have been developed to evaluate effectiveness of document collections, reference and information retrieval services, document delivery systems, networking, and technical services, including circulation, acquisitions, and document description. S/U or letter grading.

M229B. Africana Bibliography and Research Methods. (4) (Same as Africana Studies M229B.) Discussion, four hours. Techniques 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.

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 translation systems; acquisition of Slavic and East European language 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 or letter grading.

233. Records and Information Resources Management. (4) Lecture, three hours. Introduction to records and information resource management in corporate, government, and other organizational settings, including analysis of organizational information flow, classification and filing, records retention scheduling, records protection and security, re-graphics and image management technology, and litigation support. Letter grading.


236. Historical Bibliography. (4) Lecture, four hours. Requisites: courses 200, 435. History of letterpress formats (books, broadsides, magazines, newspapers, some music, etc.) as well as materials and methods of production, distribution, and readership in their social, political, and economic context. Emphasis varies but is usually on developments prior to 1800. Attention to historiography of field, including antiquarian, Anglo-American, and histoire du livre approaches. Letter 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 included electronic recordkeeping, enterprise and risk management, systems analysis and design, metadata development, data preservation, and technological standards and policy development. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors that influence behavior of user groups; communication with users; development of search strategies using print and electronic resources. Letter grading.


258. Legal Information Resources and Libraries. (4) Lecture, four hours. Introduction to information resources in law, with emphasis on primary authority and indexes to legal literature. Legal research skills. Law library services and management. Letter grading.


260. Information Structures. (4) Lecture, four hours; discussion, one hour. Required core course. Introduction to vocation to information retrieval tools used in various intellectual materials and provide access to them, 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.


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 research and discussion in information retrieval and design and maintenance of information systems. S/U or letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Prerequisite: course 260. Programming computer interfaces. Survey of social, behavioral, design, and evaluation issues in human/computer interaction, with readings from several disciplines. Extensive hands-on programming and presentation of ideas. Recommended for students in any discipline involved in design or implementation of information technologies. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Theories, principles, and practicalities of database systems, including data models, retrieval mechanisms, evaluation methods, and storage, efficiency, and security considerations. S/U or letter grading.

275. Development of Cultural Information Sources Using Digital Technologies. (4) Lecture, two hours; laboratory, two hours. Overview of technologies, techniques, and principles underlying development and packaging of cultural information resources into digital media, such as digital libraries, World Wide Web, and CD-ROMs, as well as user, policy, presentation, motivation, and evaluation considerations. 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 term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, text processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

280. Social Science Research Methodology for Information Studies. (4) Lecture, four hours. Role of research in bibliography, librarianhip, and information science. Identification and design of research problems. Historical, statistical, analytical, and descriptive techniques. S/U or letter grading.


282. Principles of Information Systems Analysis and Design. (4) Discussion, four hours. Theories and principles of systems development, including determination of requirements, technical design and evaluation, and internal organization. S/U or letter grading.

285. Introduction to Research Design and Methodology. (4) Seminar, three hours. Designed for Ph.D. students. Introduction to research traditions in library and information science: qualitative/quantitative, social science methods, ethnographic/fair approaches, and historical/philosophical approaches. Epistemological foundations of research, formulating research questions, and designing appropriate research studies. Letter 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, litera- ture search, management information systems, indexing, and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation re- search; data analysis. Letter grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, one hour; discussion, two hours. Introduction to multiple approaches that have been taken in study of information (e.g., library and information science, archival theory, social infor- matics). Assessment of influence of cognitive disciplines (e.g., linguistics, mathematics, philosophy, sociology). Evaluation of epistemological accounts of information sciences. Letter grading.

291B. Doctoral Seminar: Research Methods and Design. (4) Seminar, one hour; discussion, two hours. Topics: library survey, usability study, content analysis, ethnography, other methods as applicable. Letter grading.

416. Interpersonal Communication Issues in Library Systems. (4) Lecture, four hours. Examination of interpersonal communication patterns in library management and staff relations, in resource sharing, and in providing information services. Emphasis on relationships within organizational environment and on effective communication styles in decision making, managing conflict, and implementing change. S/U grading.

421. Special Libraries and Information Centers. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. S/U or letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide that service. Letter grading.

426. 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.


438A. Seminar: Advanced Issues in Archival Science — Archival Appraisal. (4) Formerly numbered 438.) Seminar, four hours. Requisite: course 431. Examination and evaluation of contributions of key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies. Letter grading.

438B. Seminar: Advanced Issues in Archival Science — Archival Description and Access Systems. (4) Seminar, four hours. Requisite: course 431. Exploration of history of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival access systems. Letter grading.


448. Information Literacy Instruction: Theory and Technique. (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 problems in user education/bibliographic instruction. Applications of methods of teaching use of libraries and information resources. S/U or letter grading.

455. Government Information. (4) Lecture, four hours. Introduction to nature and scope of government information promulgated by federal government, as well as by state, municipal, international, and foreign governments. Problem-oriented approach. S/U or letter grading.

457. Health Sciences Librarianship. (4) Lecture, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. Letter grading.


464. Metadata. (4) Lecture, four hours. Introduction to variety of metadata provided for digitized and other electronic information resources. Introductory theory and practice designing and applying metadata. S/U or letter grading.

473. Information Technology and Libraries. (4) Formerly numbered 405.) 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 library automation systems, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of public organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.

497. Fieldwork in Libraries or Information Organizations. (4 or 8) Fieldwork, to be arranged. Supervised field experience in approved library or information organization. Concentration must be on managerial or other professional problems of the site. Students spend full time in the field for most of the period. S/U grading.

498. Internship. (4) Discussion, to be arranged. Supervised professional training in a library or information center approved by internship coordinator. Minimum of 120 hours per term. May be repeated twice. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable course time depending on nature of study or complexity of research. S/U grading.


INSTITUTE OF THE ENVIRONMENT

Center for Interdisciplinary Instruction

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Richard D. Stolzenbach, Ph.D.
Richard P. Turco, Ph.D.
Biare Van Valkenburgh, Ph.D.

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Suzanne E. Paulson, Ph.D.
Richard R. Vance, Ph.D.

Assistant Professor
Rebecca F. Shipe, Ph.D.

Visiting Professor
Stephanie S. Pinceti, Ph.D.
Scope and Objectives
The UCLA Institute of the Environment (IoE) offers multidisciplinary academic programs that address the full complexity of current environmental problems. The IoE seeks to enhance the educational experience of students by introducing them to virtually every aspect of the environment. The mission is to explore environmental problems on local, regional, and global scales through innovative, integrative, multidisciplinary teaching, research, and outreach programs. Los Angeles is often described as "the world in microcosm." As such, it provides an unparalleled laboratory in which to conduct detailed investigations of a host of complex socioenvironmental issues. The academic program is supported by faculty from a broad range of disciplines — the natural and social sciences, public policy, engineering, law, business, public health — who are collaborating to develop an interdisciplinary curriculum. Students are able to augment their classroom experience with participation in the diverse research programs of the IoE, including fieldwork at facilities such as the UCLA Stunt Ranch Santa Monica Mountains Reserve and the Ocean Discovery Center. These opportunities provide valuable hands-on experience in land, air, and water research.

General Education Cluster
The Institute of the Environment sponsors Environnement/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 topics such as the history of environmental thought, environmental policy, and the impacts of human population. Each course in the sequence carries 5 units of academic credit. At the conclusion of the entire yearlong cluster, students complete a third of their general education course requirements, satisfy their general education seminar requirement, and fulfill the Writing II requirement.

Undergraduate Study

Environmental Systems and Society Minor
The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment, 1365 Hershey Hall, (310) 825-5008. All degree requirements, including the specific requirements for this minor, must be fulfilled within 216 units.

Required Lower Division Courses (8 units): Completion of at least two of the following courses with grades of C or better: Astronomy 3, Atmospheric and Oceanic Sciences 1, 2, 3, Earth and Space Sciences 1, 15, 16, 20, Ecology and Evolutionary Biology 10, 13, 25, Environment M1A, M1B, Geography 1, 2, 5. Other courses may be applied by petition.

Required Upper Division Courses (20 units): At least five courses from Environment M111, 112, 113, 122, M133, M137, M153, M161. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer or substitution of credit for any of the above is subject to institute approval; consult an academic adviser at the institute before enrolling in any courses for the minor.

All minor courses must be taken for a letter grade, with 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.

Environment

Lower Division Courses
M1A-M1B-M1CW. Global Environment. (5-5-5) (Same as GE Clusters M1A-M1B-M1CW.) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Letter grading. M1A-M1B. Multidisciplinary Perspective I, II. 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. (Formerly numbered M1C.) Seminar, three hours. Enforced requisites: course M1B, and English Composition 3 or 3H. Not open for credit to students with credit for former course M1C. Examination of specialized environmental topics such as air and water, global warming, and feeding Earth's population. Satisfies Writing II requirement.

Upper Division Courses
M111. Earth and Its Environment. (4) (Same as Atmospheric and Oceanic Sciences M100.) Lecture, three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of history of Earth and of life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of technological solutions to global environmental problems using knowledge gained during course. Letter grading.


113. Los Angeles Watershed. (4) Lecture, three hours; discussion, one hour. Overview of how varying scales of influence from atmosphere/climate, basin hydrology, runoffs, sewage treatment, wetlands ecol-ogy and wetlands loss, coastal water circulation, and coastal biogeochemistry affect water resources in Los Angeles. Letter grading.

M114. Soil and Water Conservation. (Same as Geography M107.) 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 agriculture, forest engineering, mining, and other rural uses of land. P/NP or letter grading.

121. Conservation of Biodiversity. (4) Lecture, three hours; discussion, two hours. Examination of interrelation of natural biotic and human systems. Description of distribution of biodiversity and natural processes that maintain it. Critical analysis of various levels of threats and multidimensional challenges required for mitigating threats. Letter grading.

122. International Integrated Coastal Management. (4) Lecture, three hours. The coast is one of most complex and interesting environments because of interactions among several ecosystems. The coast is often densely populated, with high economic and population growth, therefore socioeconomic conflicts are common. Sewage and industrial pollution, over-fishing, and poorly planned development often threaten health of environment. Integrated coastal management (ICM) offers framework for resolving the conflicts in manner that allows sustainable development. Focus on how ICM is being used in the U.S. and around the world to solve pressing ecological and socio-economic problems. Letter grading.

M127. Soils and Environment. (9) (Same as Ecology and Evolutionary Biology M127 and Geography M127.) Lecture, five hours; discussion, one hour; field trips. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. General treatment of soils and environmental implications; soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. Letter grading.

M132. Environmentalism: Past, Present, and Future. (4 to 6) (Same as Geography M115 and Urban Planning CM165.) Lecture, three hours; optional field study, five to 10 hours. Exploration of history, politics, and theories of environmental movements, dynamics of race, class, and gender in relation to environmental agendas, and potential role of environmentalism in reshaping our society. 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 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.

M137. Historical Geography of American Environment. (4) (Same as Geography M137.) Lecture, three hours. Designed for juniors/seniors. Study of systematic changes of natural environment in the 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.
M153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design CM153.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Letter grading.

M161. Global Environment and World Politics. (4) (Same as Political Science M122B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

M162. Land Use and Development. (4) (Same as Urban Planning M162.) Lecture, four hours. Examination of institutional and historical evolution of land use in the U.S. Comparison and contrasting of how cities have evolved in different parts of the 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. Management, Technology, and Environment. (4) Lecture, four hours. Exploration of management of environmental issues by private companies in dynamic context of rapidly changing public expectations; specific focus on industrial ecology framework to evaluate effectiveness of firm-level efforts to moderate environmental impacts of economic activity. Letter grading.

M164. Environmental Politics and Governance. (4) (Same as Urban Planning CM160.) 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.

M165. Nuclear Weapons: Critical Decisions. (4) (Same as Honors Collegium M119, Public Policy M116, and Political Science M139B.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt's decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. Letter grading.

M168. Environmental Policies and Politics. (4) (Same as Urban Planning M161.) Lecture, four hours. Exploration of origins of major environmental laws, how they have evolved over past two decades, and how they have been implemented, with particular focus on California. Rise of environmental movement and its importance in shaping climate for passage of these laws in response to growing understanding of effects of industrial pollution and urbanization, and subsequent rise of environmental justice movement and its influence on legislation. Letter grading.

184. Basics of Satellite Oceanography. (4) (Formerly numbered 198.) Lecture, two hours; discussion, one hour; computer laboratory, 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 scatterometers, and water color properties measured by optical sensors. Multidiscipline information enables comprehensive monitoring of both physical and biological properties of ecosystems in different ocean regions. P/NP or letter grading.

185. Speaker Series: Environment. (2) Lecture, two hours. Series of lectures by world-renowned authors, environmentalists, and progressive thinkers, with required student response papers. Analysis of principles of sustainability. Collaboration between students, faculty, staff, and administrators at UCLA and UCSB through ongoing communication, discussions, and optional retreat. P/NP 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 under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culminating paper or project required. May be taken for a maximum of 4 units. Individual contract required. P/NP or letter grading.

Related Courses

Atmospheric and Oceanic Sciences
- 102. Climate Change and Climate Modeling
- 103. Physical Oceanography
- 104. Fundamentals of Air and Water Pollution
- 105. Introduction to Chemical Oceanography
- 130. Circulation of Santa Monica Basin
- M140. Environmental Chemistry Laboratory
- C160. Remote Sensing

Chemical Engineering
- 113. Air Pollution Engineering
- C118. Multimedia Environmental Assessment
- C140. Fundamentals of Aerosol Technology

Chemistry and Biochemistry
- 103. Environmental Chemistry
- M104. Environmental Chemistry Laboratory

Civil and Environmental Engineering
- 110. Introduction to Probability and Statistics for Engineers
- 151. Introduction to Water Resources Engineering
- 153. Introduction to Environmental Engineering Science
- 154. Chemical Fate and Transport in Aquatic Environments
- 156A. Environmental Chemistry Laboratory
- 163. Introduction to Atmospheric Chemistry and Air Pollution
- M166. Environmental Microbiology

Earth and Space Sciences
- 100. Principles of Earth Science
- 116. Paleontology
- 150. Remote Sensing for Earth Sciences
- 153. Oceans and Atmospheres

Ecology and Evolutionary Biology
- 109. Introduction to Marine Science
- 116. Conservation Biology
- C119. Mathematical Ecology
- 120. Evolution
- 122. Ecology
- 147. Biological Oceanography
- C151A. Tropical Ecology

Economics
- 134A. Environmental Economics

Environmental Health Sciences
- 100. Introduction to Environmental Health

Geography
- 100. Principles of Geomorphology
- 101. Coastal Geomorphology
- 103. Paleoclimatology and Ice-Age Environments
- 104. Climatology
- 105. Hydrology
- 110. Population and Natural Resources

M128. Global Environment and Development: Problems and Issues
- 131. Environmental Change

Public Policy
- C115. Environmental and Resource Economics and Policy

Urban Planning
- CM165. Environmentalism: Past, Present, and Future
- CM166. Global Environment and Development: Problems and Issues

International Development Studies

Interdepartmental Program
College of Letters and Science

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http://www.international.ucla.edu/idps/id/
Undergraduate Study

International Development Studies B.A.

Preparation for the Major

Required: Economics 1 or 2, one statistics course from Geography M40, Political Science 6, Sociology M18, or Statistics 10, and four courses from four different departments selected from Anthropology 9, Geography 3, 4, 5, History 8A, 8B, 8C, 9A, 9D, 9E, M10A, 10B, 10BW, 11B, 21, 22, Political Science 50, Sociology 1.

After satisfying the preparation for the major requirements, students must file a petition in the Undergraduate Advising Office, 10375 Bunche Hall, to declare the International Development Studies major.

Transfer Students

Transfer applicants to the International Development Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introductory economics course, one statistics course, and four courses selected from four of the following five fields: sociocultural anthropology, cultural or economic geography, world history, comparative politics, and sociology.

Refer to the UCLA Transfer Admission Guide at [link] for up-to-date information regarding transfer selection for admission.

The Major

The major consists of five required parts (courses marked with an asterisk have requisites):

1. International Development Studies 100A, M100B, 191
2. One research methodology course from Anthropology 139, *180, M186, Community Health Sciences 181, Geography *124, 157, *163, Honors Collegium M150, Sociology 106A, 110, *113, 116
4. Five regional and thematic elective courses, with four to be selected from the regional course lists below and divided equally between two of the world’s developing regions; the fifth course may be selected from either the regional or thematic lists
5. Completion of six quarters (24 units) of any modern foreign language (a) at UCLA through level 6 or equivalent, (b) through the UCLA Education Abroad Program or another study abroad program, (c) through transfer of courses taken at another college, which may require certification from the equivalent language department at UCLA, or (d) through a placement test provided by the department of instruction at UCLA. The major requires proficiency through the intermediate level in speaking, reading, and writing of one modern foreign language. All modern foreign languages are offered since the languages of developed nations (for example, French and German) are often used in the developing world and are useful in development work.

Honors Program

Majors who have completed International Development Studies 100A and M100B and who have a 3.5 grade-point average in all courses offered for the major are eligible to formally apply for the honors program. In addition to completing all courses required for the major, students must take courses 198A, 198B, and 198C, in which they research, write, and present an honors thesis. To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

International Development Studies

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 focus on state, market, culture, ideology, and politics of professional knowledge. Balance of general trends and positions with selected case studies in developing nations. Letter grading.

M100B. Introduction to Development Studies: Political Economy of Development. (4) (Formerly numbered 100B.) (Same as Political Science M167C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for International Development Studies majors. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. Letter grading.

188. Special Courses in International Development Studies. (2) Seminar, two hours. Interdepartmentally sponsored experimental or temporary courses on selected contemporary topics in international development taught by visiting instructors or affiliated faculty members. May be repeated for credit with topic change. P/NP or letter grading.

191. Variable Topics in International Development Studies: Senior Seminar. (4) (Formerly numbered 190A-190N.) Seminar, three hours. Limited to senior International Development Studies majors. Organized on topics basis with readings, discussions, papers. May not be repeated for credit. Letter grading.

198A-198B-198C. Honors Research in International Development Studies. (4-4-4) (Formerly numbered 195A-195B-195C.) Tutorial, to be arranged. Preparation: 3.5 grade-point average in courses for major, formal application to honors program. Required: courses 100A, M100B. Limited to junior/senior International Development Studies majors. Individual contract required. 198A. Research, discussion, and planning of honors thesis under direct supervision of faculty member. Letter grading. 198B. Requisite: course 198A. Research, discussion, and planning 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 junior/senior International Development Studies majors. Supervised intensive directed research program in which students conduct interdisciplinary research under guidance of faculty mentor. Culuminating paper required. May be applied toward major via petition. May not be repeated. Individual contract required. Letter grading.

Course List

Region 1: Sub-Saharan Africa

Anthropology

171. Sub-Saharan Africa

Art History

119C. Arts of Sub-Saharan Africa

Comparative Literature

169. Continental African Authors

Geography

*122. Wildlife Conservation in Eastern and Southern Africa

135. African Ecology and Development

History

166B. History of West Africa since 1800

167A. History of Northeast Africa

167B. History of East Africa

167C. History of Central Africa

168B. History of Southern Africa since 1870

Political Science

133. International Relations of Sub-Saharan Africa

151A. African Politics: Government and Politics of Africa

151B. African Politics: Political Economy of Africa

151C. African Politics: Special Topics in African Politics

Region 2: Middle East and North Africa

Anthropology

176. Culture Area of the Middle East

Geography

187. Middle East

History

105B. Survey of Middle East from 1300 to 1700

105C. Survey of Middle East from 1700 to the Present

111C. Topics in Middle Eastern History: Modern

Jewish Studies (Near Eastern Languages)

142. History and Institutions of State of Israel

Political Science

*132A-M132B. International Relations of Middle East
Region 3: East Asia and East Central Asia

Anthropology
175U. Ideology and Social Change in Contemporary China
177. Civilizations of East Asia
175V. Ethnology of Korea: Re-Presenting Lives in Contemporary South Korea

Art History
C115B. Advanced Chinese Art
C115F. Art and Material Culture of Late Imperial China, 906 to 1911
C140A. History of Korean Painting
C140B. History of Korean Ceramics
C140C. History of Korean Buddhist Art
C140D. Selected Topics in Korean Art

Asian (Asian Languages)
163. Buddhism across Boundaries
Chinese (Asian Languages)
151. Chinese Literature in Translation: Modern Literature
152. Topics in Contemporary Chinese Literature and Culture

Geography
186. Contemporary China

History
169B. Thought and Society in China since 1000
170B. Selected Topics in Chinese History from 1500
M170C. History of Women in China, A.D. 1000 to the Present
170D. 20th-Century China

Korean (Asian Languages)
150. Korean Literature in Translation: Classical
151. Korean Literature in Translation: Modern
180B. Cultural History of Korea, 1260 through 1876
180C. Cultural History of Korea since 1876

Political Science
135. International Relations of China
159A. Government and Politics of China: Chinese Revolution and Age of Mao Zedong
159B. Government and Politics of China: China in Age of Reform

Sociology
179. Comparative East Asian Societies
181. State and Society in China

Region 4: South and Southeast Asia and Pacific Islands

Anthropology
175U. Cultures of the Indonesian Archipelago
177. Cultures of the Pacific

Art History
114F. Arts of Southeast Asia
C115A. Advanced Indian Art

Geography
185. South and Southeast Asia

History
175A. Cultural and Political History of Contemporary South Asia
175C. Special Topics in Contemporary Indian History
176A. History of Southeast Asia: Early History of Southeast Asia
176B. History of Southeast Asia: Southeast Asia since 1815
176C. Philippine History
176D. History of the Philippines
176E. Vietnam: Past and Present

Southeast Asian (Asian Languages)
130. Topics in Southeast Asian Literature
155. Topics in Vietnamese Cinema and/or Literature
156A. Vietnam: History and Civilization to 1858
156B. Vietnam: History and Civilization, 1858 to the Present
170A-170B-170C. Topics in Southeast Asian Studies

Region 5: Eastern Europe and West Central Asia

Anthropology
175R. Societies of Central Asia

Czech (Slavic Languages)
155. Survey of Czech Literature from Middle Ages to the Present

History
107C. Armenian History: Armenia in Modern and Contemporary Times, 19th and 20th Centuries
107E. Caucasus under Russian and Soviet Rule
120A. East-Central Europe: Long 19th Century, 1780 to 1914
120B. East-Central Europe: Short 20th Century, 1918 to 1990
120D. History of Russia: Imperial Russia from Peter the Great to Nicholas II
127C. History of Russia: Revolutionary Russia and the Soviet Union

Political Science
128B. International Relations of Post-Communist Russia
156A. Government and Politics of Post-Communist States: Russia
156B. Government and Politics of Post-Communist States: Eastern Europe
156C. Government and Politics of Post-Communist States: Post-Soviet States
156D. Government and Politics of Post-Communist States: Political Economy of Post-Communist Reform

Romanian (Slavic Languages)
155. Survey of Romanian Literature

Russian (Slavic Languages)
119. Golden Age and the Great Realists
120. Literature and Revolution
124C. Studies in Russian Literature: Chekhov
124D. Studies in Russian Literature: Dostoevsky
124G. Studies in Russian Literature: Gogol
124N. Studies in Russian Literature: Nabokov
124P. Studies in Russian Literature: Pushkin
124T. Studies in Russian Literature: Tolstoy
126. Survey of Russian Drama
M127. Women in Russian Literature

C170. Russian Folklore

Serbian/Croatian (Slavic Languages)
154. South Slavic Literature

Slavic (Slavic Languages)
125. Interwar Central European Prose
126. Postwar Central European Prose

Women's Studies
M127. Women in Central European Literature

Region 6: Latin America and Caribbean Basin

Anthropology
173Q. Latin American Communities
174P. Ethnography of South American Indians

Art History
110G. Art and Politics in Contemporary Americas: Latin America
C110H. Latin American Art of the 20th Century

Community Health Sciences
132. Health, Disease, and Health Services in Latin America

Geography
181. Mexico, Central America, Caribbean
182A. Spanish South America
182B. Brazil

History
157B. Indians of Colonial Mexico
159. Latin America in the 19th Century
160A. Latin American Elitelore
160B. Mexican Revolution since 1910
161. Issues in Latin American History
162A. Modern Brazil

Latin American Studies
191. Interdisciplinary Topics in Latin American Studies

Political Science
130. Politics of Latin American Economic Development
131. Latin American International Relations
154A. Government and Politics in Latin America: States of Middle America
154B. Government and Politics in Latin America: States of South America

Sociology
186. Latin American Societies

Spanish (Spanish and Portuguese)
M161. Film and Literature of the Spanish-Speaking World

Thematic Electives

Anthropology
155. Evolution of Human Societies

Comparative Literature
C173. Postmodernism and the Third World

Economics
121. International Trade Theory
122. International Finance
171. Industrial Organizations: Theory and Tactics

Education
M108. Sociology of Education
C126. Educational Anthropology

Environment
122. International Integrated Coastal Management

Film and Television (Film, Television, and Digital Media)
106C. History of African, Asian, and Latin American Film
112. Film and Social Change

Political Science
118. Political Violence
123A-123B. International Law
126. Peace and War
137A-137B. International Relations Theory

Sociology
156. Race and Ethnicity in American Life
157. Social Stratification
183. Comparative and Historical Sociology
184. Social Change

Women's Studies
*M155Q. Women and Social Movements

World Arts and Cultures
100A. Art as Social Action
INTERNATIONAL RELATIONS

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http://www.polisci.ucla.edu

Scope and Objectives

The undergraduate specialization in International Relations can only be taken jointly with a major in Political Science, and all requirements for the Political Science major must be met by or in addition to meeting the requirements of this program. Students completing the program receive a degree with a major in Political Science and specialization in International Relations. The program is designed to serve the needs of (1) students desiring a general education focused on international affairs and (2) students preparing for graduate work in international affairs, whether in a social science or area study.

The program is also beneficial for (1) students planning careers (in business, law, journalism, or library service) with an international emphasis and (2) those preparing to teach social sciences in the secondary schools. These students should structure their programs primarily to meet the preparation requirements of the professional school or instructional credential of their choice.

Courses in management and administration, and in oral and written communications, ordinarily increase the career options of students in this program.

Undergraduate Study

International Relations Specialization

Preparation for the Specialization

Required: Political Science 20, 50, and two courses from 10, 30, 40; Anthropology 9; Economics 1 and 2, 5, or 100; Geography 3 or 5; History 1A, 1B, and 1C, or any three courses from 8A, 8B, 8C, 9A, 9C, 9D, M10A, 10B, 11A, 11B; Sociology 1.

Upper Division Requirements

The Political Science major should be completed as follows: any four upper division political science courses in each of Fields I and IV and two additional courses both in Field I or III.

Other required social sciences courses include one course from Anthropology 161, 167, 171, 173Q, 174P, 175R, 175T, 175U, 177, Sociology 179, 182, 183, 186, 187; two courses from Economics 110, 111, 112, 120, 121, 122, 180, 181A, 181B; one course from Geography 110, 121, 125, M128, 133, 140, 181, 182A, 182B, 183, 185, 186, 187; two courses from History 113A, 113B, 114A, 123A, 123B, 137A, 137B, 140C, 144A, 144B.

Completion of the sixth quarter course (or equivalent as prescribed by the language department), with a grade of C or better, of any modern foreign language is also required. French 6, German 6, Spanish 25, and Russian 6 are most frequently offered in fulfillment of this requirement, but also refer to the offerings listed under African Languages, Asian Languages and Cultures, Germanic Languages, Italian, Near Eastern Languages and Cultures, and Portuguese. Arabic, Chinese, French, German, Japanese, Russian, and Spanish are the languages of widest career utility in international affairs.

All courses must be taken for a letter grade.

Area Focus

Students are advised but not required to concentrate their political science, geography, history, and language courses so as to achieve broad familiarity with one area, such as Africa, East Asia, Europe, Latin America, the Middle East, South Asia, or Southeast Asia.

For further information, contact the political science undergraduate counselor in the program office.

ISLAMIC STUDIES

Interdepartmental Program

College of Letters and Science

UCLA
10373 Bunche Hall
Box 951480
Los Angeles, CA 90095-1480
(310) 206-6571
tel: (310) 206-2406
e-mail: idpgrads@international.ucla.edu
http://www.international.ucla.edu/idps/islamicstudies/

Michael G. Morony, Ph.D., Chair

Faculty Advisory Committee

Leonard Binder, Ph.D. (Political Science)
Irene A. Bierman, Ph.D. (Art History)
Michael D. Cooperson, Ph.D. (Near Eastern Languages and Cultures)
Sondra Hale, Ph.D. (Anthropology, Women’s Studies)
Nikki Keddie, Ph.D., Emeritus (History)
Michael G. Morony, Ph.D. (History)
Ismail K. Poonawala, Ph.D. (Near Eastern Languages and Cultures)
Allen F. Roberts, Ph.D. (World Arts and Cultures)
Hossein Ziai, Ph.D. (Near Eastern Languages and Cultures)

Scope and Objectives

The interdepartmental degree program in Islamic Studies 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. Linguistics skills, historical knowledge, and cultural understanding are the foundation on which the disciplinary paradigms and methodologies of both the social sciences and humanities can be applied. Within this broad framework, students are encouraged to construct individualized curricula that will prepare them to carry out cutting-edge dissertation research leading to the Ph.D.

The program for the Master of Arts and Ph.D. degrees in Islamic Studies is designed primarily for students desiring to prepare for an academic career. It may, however, be found useful for students seeking a general education and desiring a special emphasis in this particular area or for those who plan to live and work in predominantly Muslim areas and whose career will be aided by a knowledge of the people, languages, and institutions. Such a career might be centered on teaching, research, business, engineering, journalism, librarianship, or government service. Subject to the limitations of the program, the special course of studies is formulated for candidates according to their experience and requirements.

The undergraduate major in this discipline is called Middle Eastern and North African Studies. For details, see the program by that name later 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://www.gdnet.ucla.edu. 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.) 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 Course

200. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods employed in study of Islamic histories, cultures, and societies, with special emphasis on methodologies and current theories and how they may be used and combined by Islamic studies students. Content varies each year. Letter grading.

Course List

Anthropology

130. Study of Culture
150. Study of Social Systems
M154Q. Gender Systems: Global
M155Q. Women and Social Movements
156. Comparative Religion
161. Development Anthropology
167. Urban Anthropology
175R. Societies of Central Asia
Undergraduate Study

Italian B.A.

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 credited 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, 46.

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.
- Two years of Italian and one Italian civilization or culture course.
- Six courses from 113 through 197; 180. One upper division elective course in a field relevant to Italian studies from outside the department may be substituted with consent of the undergraduate adviser.
- 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.

Students with special interests or professional goals may select this 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 https://www.admissions.ucla.edu/prospect/adm_tr.htm 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, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; five courses from Anthropology 111, 112, M115A, M115B, C115R, 130, 133Q, 135A, 135B, 135C, 135S, 135T, 139, M140, 141, 143, 150 through M154Q, 161, 182, 183 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, 180, 195, and four courses from 113 through 197 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, 195, and two courses from 113 through 197 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, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; four courses from English 100, M101A through 119, 121, 140A through 182C 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, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from Film and Television 106A, 106B, 106C, 107, 108, 110A, 110C, 112 through 116, 127, 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, 195, and four courses from 113 through 197 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.

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, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from History 100, 102, 117C 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, 195, and two courses from 113 through 197 selected in consultation with the undergraduate adviser; Linguistics 103, 110, 120A, 120B, and one course from M146, M150, M165A, 165B, 170 selected in consultation with the undergraduate adviser.

Music History Field

Preparation for the Major

Required: Italian 1, 2, 3, 4, 5, 6, Music History 2A, 2B, 26A, 26B, 26C. Recommended: Music 20A, 20B, 20C.

The Major

Required: Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in...
consultation with the undergraduate adviser; five courses from Music History 126A, 126B, 126C, 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, 195, and four courses from 113 through 197 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, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; six courses from Political Science M111A through 113, 116 through 119, 137A, 137B, 139, 153A, 155, 167A 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, M42 or M44 or 46.

The Major
Required: Italian 100, 103A or 103B, 195, and four courses from 113 through 197 selected in consultation with the undergraduate adviser; three courses from Portuguese 120A 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), M42 or M44.

The Major
Required: Italian 100, 103A or 103B, 180, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; three courses from Portuguese 120A or 120B and three courses from 122 through M161 selected in consultation with the undergraduate adviser.

Theater Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

The Major
Required: Italian 100, 103A or 103B, 122, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; one course from Theater 101A, 101B, 101C and five courses from 105, 111A, 111B, 111C, Classics 143A, English 142A, 142B, 142C, 168 selected in consultation with the undergraduate adviser.

Women's Studies Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46; Women's Studies 10.

The Major
Required: Italian 100, 103A or 103B, M158, 195, and three courses from 113 through 197 selected in consultation with the undergraduate adviser; Women's Studies 110A or 110B, and five additional upper division courses from any of the women's studies course lists selected in consultation with the undergraduate adviser.

Study in Italy
Students are encouraged to spend up to one year in Italy either to (1) study with an education abroad program or (2) study in an Italian university. They are also urged to take advantage of summer language workshops and study programs, including UCLA's own programs in Italy and Los Angeles. For additional information, contact the Education Abroad Program, B300 Murphy Hall, or the Summer Sessions Office, 1147 Murphy Hall.

Honors Program
Majors with an overall grade-point average of 3.25 and a 3.5 GPA or better in Italian are eligible to participate in the honors program. Requirements: Italian 102A, 102B, 102C. Candidates select three upper division literature courses in which additional readings are required. In the last term of the senior year, they are required to write a thesis on a subject related to one of the three above-mentioned courses. The average for the three courses may not fall below A-. Applications should be made during the last term of the junior year.

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. All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) 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.
3. Elementary Italian — Special Reading. (4) Reading, three hours. Open to graduate students in other fields. Preparation for Graduate Division foreign language reading requirement. S/U grading.

Honors Program
Majors with an overall grade-point average of 3.25 and a 3.5 GPA or better in Italian are eligible to participate in the honors program. Requirements: Italian 102A, 102B, 102C. Candidates select three upper division literature courses in which additional readings are required. In the last term of the senior year, they are required to write a thesis on a subject related to one of the three above-mentioned courses. The average for the three courses may not fall below A-. Applications should be made during the last term of the junior year.

Graduate Degrees
The Department of Italian offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Italian.
Upper Division Courses


102A-102B. Italian Cultural Experience in English. (4-4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading. 102A. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance to the modern period. Emphasis on study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and films by Guidoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

116A-116B. Italian Renaissance. (4-4) Lecture, three hours. Requisite: course 100. P/NP or letter grading. Study of the Quattrocento and its representations in the arts and humanistic thought (i.e., Mantegna, Botticelli, Pico, Valla, and Ficino). 116B. Power and Imagination in the Renaissance. Study of artistic work of Leonar- do, Botticelli, Michelangelo. Comparative study of major literary masterpieces of Machiavelli, Castiglione, Ariosto, Tasso, in world molded by powerful political forces, such as the Medici Papacy and Medici, Gonzaga, and D'Este courts.

118. Age of Enlightenment. (4) Lecture, three hours. Requisite: course 100. Study of the Ottocento, the rich period of Italian history and culture from Romanticism to decadentism when philosophical and political issues affected not only the mind but also the heart. Emergence of unique brand of individualism through poetry and prose writings of Foscolo, Leopardi, Manzoni, Nino, and Verga. P/NP or letter grading.

119. Italian Ottocento. (4) Lecture, three hours. Requisite: course 100. Study of the Ottocento, the rich period of Italian history and culture from Romanticism to decadentism when philosophical and political issues affected not only the mind but also the heart. Emergence of unique brand of individualism through poetry and prose writings of Foscolo, Leopardi, Manzoni, Nino, and Verga. P/NP or letter grading.

120. Literature in the 20th Century. (4) Lecture, three hours. Requisite: course 100. Analysis of novels, poetry, and drama of the 20th century in connection with modern political and cultural movements. Authors may include D'Annunzio, Pirandello, Montale, Pasolini, and Calvino. P/NP or letter grading.

121. Literature and Film. (4) Lecture, four hours. Comparative study of specific literary works and their translation into film and of different techniques in the two 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; discussion, one hour. Works from the Renaissance to the present and their theatrical presentation, P/NP or letter grading.


140. Italian Novella from Boccaccio to Basile. (4) (Formerly numbered M140.) Lecture, three hours. Analysis of development of Italian novella in its structural, 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. Select issues in 20th-century thought and fiction, with coverage of authors such as Umberto Eco, 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.

M158. Women in Italian Culture. (4) (Same as Women's Studies M158.) Lecture, three hours; discussion, one hour. Examination of role of women in Italian society through history, politics, literature, film, and art. Italian majors required to read texts in Italian. P/NP or letter grading.

180. History of Italian Language. (4) (Formerly numbered 190.) Lecture, three hours. Major forces that have shaped literary and standard Italian and specific criteria in which the 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.

195. Community or Corporate Internship in Italian. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. Individual contract with supervising faculty member required. P/NP or letter grading.

Graduate Courses

201. Bibliography and Methods of Research. (4) Lecture, three hours.

205A-205B. Studies in Criticism. (4-4) Lecture, three hours. History, theory, and practice of criticism. S/U or letter grading. 205A. Brief History of Literary Criticism, with emphasis on modern and postmodern approaches from structuralism to deconstruction and new historicism, and feminist criticism.

210. Studies in Early Italian Literature. (4) Lecture, three hours. Topics include origins of Italian language and study of early texts, Scuola Scolastica 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. Petrarca's Canzoneiri. (4) Lecture, three hours. S/U or letter grading.


214E. Boccaccio's Other Works. (4) Lecture, three hours. S/U or letter grading.

214F. Variable Topics. (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 de 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 Pucii or Poliziano. 215B. Age of Lorenzo de' Medici and Poliziano.


216A. Machiavelli and Renaissance Political Thought. (4) Lecture, three hours. S/U or letter grading.

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, Leopardi, or Benvenuto. S/U or letter grading.

197. Variable Topics in Italian Studies. (4) Seminar, three hours. Seminar focusing on themes and issues outside the uniquely Italian literature topics covered in regular departmental undergraduate courses. May be repeated for credit. P/NP or letter grading.

199A. Directed Research in Italian. (2 to 4) (Formerly numbered 199.) Tutorial, to be arranged. Limited to seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.

199B. Directed Research in Italian and Special Fields. (2 to 5) (Formerly numbered 195.) Tutorial, to be arranged. Limited to senior Italian and Special Fields majors. Supervised individual research or investigation under guidance of faculty mentor. Tutorial in which paper (20 to 25 pages) is to be written in either Italian or English that requires students to unify and synthesize their experience of combining two disciplines of study. Individual contract required. P/NP or letter grading.
218A. Studies in 18th-Century Literature. (4) Lecture, three hours. Topics include Galileo and birth of scientific prose, Giordano Bruno, Gian Battista Vico, and baroque poetry. S/U or letter grading.


218B. Alfieri. (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. Boscolo. (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, Tommaso, and Neevo. 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 (Gabriele D’Annunzio) and analysis of radical innovations brought about by such towering figures as Pirandello, Svevo, Bernani, 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 Strelih, 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) (Same as Romance Linguistics M202A-M202B.) Lecture, three hours. Each course may be taken independently for credit. S/U or letter grading.

222A. Morphology. Principal sound changes from late Latin to main Romance dialects. M222B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Romance dialects.

223. Structures of Modern Italian. (4) Formerly numbered 222B.) 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) Formerly numbered 222C.) Lecture, three hours. Differentiation of late Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provençal). Consideration of present-day sociolinguistic pressures. S/U or letter grading.

225. Cultural History of Italian Language. (4) Formerly numbered 222A.) Lecture, three hours. Historical survey of development of Italian language from medieval times to unification of the country in 1861. Questione della lingua, general acceptance of Florentine speech, and its evolution into the national language. S/U or letter grading.


230A-250D. Seminars: Dante. (4 each) Seminar, three hours.

251. Seminar: Petrarch. (4) Seminar, three hours.

252. Seminar: Boccaccio. (4) Seminar, three hours.

253A-253B-253C. Seminars: Chivalric Poetry in Italy. (4-4-4) Seminar, three hours. Relationship between the genre and its French medieval sources, with study of its evolution in Italy through Pulci, Boiard, Aristo, and Tasso.

254. Seminar: Machiavelli. (4) Seminar, three hours.

255A-255B. Seminars: Baroque. (4-4) Seminar, three hours.

256A-256B. Seminars: 18th Century. (4-4) Seminar, three hours.

257A-257B. Seminars: Romanticism. (4-4) Seminar, three hours.

258A-258B. Seminars: Contemporary Italian Literature. (4-4) Seminar, three hours.

260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature. (4-4) Formerly numbered M260A.) Lecture, three hours. Open to undergraduates with consent of instructor. Conspicuous diversity animating Italian society articulated through class, gender, and ethno linguistic groups to be studied across range of texts, some selected from literary canon, but others purely oral (tales, songs, proverbs, cures and curses, secular and ritual drama). S/U or letter grading.

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or representing women’s conditions in either medieval/renaissance or contemporary 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 Florentine and neorealist, its legacy, different genres, and contemporary scene. S/U or letter grading.

260D. Women in Italian Culture. (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.

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.

M299. Research Resources for European Studies. (2) (Same as French M299, German M299, Information Studies M299, Slavic M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. S/U grading.

370. Problems and Methods in Teaching Italian. (4) Lecture, three hours. Preparation and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

485A-485B-485C. Teaching Italian at College Level. (2 to 4 each) 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 uses of technology in foreign language classroom. Project-based seminar in which students develop materials for classroom instruction as well as an electronic teaching portfolio.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate 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) 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
Interdepartmental Program
College of Letters and Science
UCLA
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Faculty Advisory Committee
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Sanford M. Jacoby, Ph.D. (Management)
Jacqueline Leavitt, Ph.D. (Urban Planning)
Ruth M. Milkman, Ph.D. (Sociology)
Daniel J.B. Mitchell, Ph.D. (Management, Public Policy)
Karen J. Orren, Ph.D. (Political Science)
Edward W. Soja, Ph.D. (Urban Planning)
Abel Valenzuela, Jr., Ph.D. (Chicana and Chicano Studies, Urban Planning)
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 in-depth understanding of the broad array of issues related to labor and the workplace. Students are encouraged to plan, with the faculty 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 and meet with the faculty coordinator at the UCLA Institute of International Relations, 2410 Hershey Hall, (310) 206-0812, lsminor@ir.ucla.edu. Students are encouraged to meet early with the faculty coordinator to declare the minor and design a coherent program of coursework.

Required Courses (28 units minimum): Seven courses, with no more than two lower division courses, selected from Chicana and Chicano Studies 127, 128, Economics 151, 152, General Education Clusters M24A, M24B, M24CW, History 146A, 146B, Management 180, Political Science 116, 142C, Psychology M137E, Public Policy 141, C142, C144, 145, Sociology 157, M163, 171, 173, Women’s Studies M137E, M163. Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor and workplace studies content.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program. No more than three of the upper division courses may be taken from any one department.

All minor courses must be taken for a letter grade, with 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.

Labor and Workplace Studies

Lower Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in the U.S. (5-5-5) (Same as GE Clusters M24A-M24B-M24CW). Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Open only to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over the last century, impact of this transformation on working people, and role of labor movement as force for social justice. M1CW. Special Topics. Seminar, three hours. Enforced requisites: course M1B, and English Composition 3 or 3H. Topics include labor law, gender, race, and workplace. Satisfies Writing II requirement.

Upper Division Courses

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 character, political and social vision, and social and political relevance to current issues. How movement participants linked struggle for change with own personal transformation and growth. P/NP or letter grading.

160. Research Group or Internship Seminars: Labor and Workplace Studies. (5) Seminar, three hours. Open only to students completing course 195. Designed for undergraduate students who are part of research group or internship discussion. Discussion of research methods and current literature in field or of research of faculty members or students. In-depth examination of experience of workers and role of labor movement in American society, historically and today. Topics include changing organization of work in the U.S. and reconfiguration of employment relationships; response of labor movement to managerial initiatives; way in which organized labor has handled issues of race, ethnicity, gender, and immigration status; challenges facing workers in the 21st century and ways in which organizations (unions and community-based organizations) are responding to those challenges. Letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Afro-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 guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

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.

195. Community or Corporate Internship in Labor and Workplace Studies. (5) Tutorial, three hours; internship, 10 hours. Enforced corequisite; course 160. 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. Individual contract with supervising faculty member required. P/NP grading.

LATIN AMERICAN STUDIES

Interdepartmental Program
College of Letters and Science

UCLA 10373 Bunche Hall
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David E. López, Ph.D. (Sociology)
José C. Moya, Ph.D. (History)
Kevin B. Terraciano, Ph.D. (History)
Carlos A. Torres, Ph.D. (Education)

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 Bachelor of Arts and Master of Arts degrees. In the undergraduate major students develop a program combining language and methodological training with interdisciplinary studies in one of three areas: arts and humanities, social sciences, or ecology and environment. At the graduate level, students pursue more 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.
Undergraduate Study

Latin American Studies B.A.

Undergraduate studies of the Latin American region are designed to serve the needs of students (1) desiring a general education focused on the Latin American cultural region, (2) planning to enter business, government, or international agency service, (3) preparing to teach social sciences or language, and (4) preparing for advanced academic study of Latin America.

Students must complete all preparation courses with a C (2.0) in each course; the courses are applicable toward the Letters and Science lower division general education requirements.

Foreign Language Requirement

Language requirements are uniform for all students in the major regardless of core area. Proficiency in two languages equivalent to (1) Spanish 25 and Portuguese 3 or (2) Portuguese 25 and Spanish 5 is required. In lieu of Portuguese 1, 2, and 3, students may take Portuguese 102A and 102B which are designed for those with a background in Spanish. An indigenous language of Latin America (i.e., Quechua) may be substituted for the minor language.

Transfer Students

Transfer applicants to the Latin American Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: advanced Spanish and one year of elementary Portuguese, or advanced Portuguese and intermediate Spanish, two Latin American history courses, and additional coursework in the area of concentration.

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.

Course Limitations

Students may not take more than 8 units of Latin American Studies 199 for letter-grade credit nor more than 8 units in any single term. No course taken on a Passed/Not Passed basis may be applied toward the B.A. degree requirements. In order to register in a 199 course, students must have advanced junior standing and an overall grade-point average of 3.0, or senior standing.

Double Majors

Through judicious use of electives, students may find it possible to obtain the B.A. degree with two majors (e.g., Latin American Studies and History). Interested students who have achieved junior standing should consult the undergraduate advisers of both departments involved, initiating the appropriate petition with the student affairs counselor in Latin American Studies.

Study in Latin America

Students are encouraged to spend up to one year in Latin America either (1) to study with an education abroad program, (2) to study in Latin American universities, (3) to conduct research, or (4) to complete an internship in an international or development agency. Full credit is granted according to the individual programs arranged in consultation with the undergraduate advisor. For information on studying in Mexico, Costa Rica, Chile, or Brazil, contact the Education Abroad Program, B300 Murphy Hall, (310) 794-9820.

Core Areas for the Major

Students select one of three core areas as the focus of their major: arts and humanities, social sciences, or ecology and environment. Requirements for each core area are listed below.

Core I: Arts and Humanities

Preparation

Required: Two courses from History 8A, 8B, 8C; Latin American Studies 97A (or 91 with department consent); Spanish and Portuguese M44; Art History 55B or Ethnomusicology 91K and World Arts and Cultures 6 or 8.

Core Area

Required: Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. Core Concentration: Five courses as listed below in either the literature and folklore field or the linguistics field selected from Portuguese or Spanish, or in the fine arts field selected from art history or ethnomusicology. Only one course from the electives list within the arts and humanities core area may be applied toward the core concentration.

2. Theory and Methods: One course from theory and methods within the core concentration field.

3. Internal Breadth: Four additional courses from the arts and humanities core area but outside the core concentration field. No more than two of these may be electives.

External Breadth

Required: From the approved list, six upper division courses outside the arts and humanities core area distributed as follows: at least two courses in social sciences (e.g., history) and two courses in ecology and environment (e.g., geography). The two additional courses required may be from either social sciences or ecology and environment. No more than three external breadth courses may be electives.

Approved Undergraduate Courses

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

1. Literature and Folklore Field

History

160A. Latin American Elitelore

Portuguese (Spanish and Portuguese)

130A-130B. Brazilian Literature and Identity: Introduction

C132. 19th-Century Brazilian Literature and Culture

C133. Machado de Assis

C134. Brazilian Modernism

C135. 20th-Century Brazilian Literature

141. Brazilian Film and Literature

Spanish (Spanish and Portuguese)

120A-120D. Literature in the Hispanic World

137. Literature of Colonial Spanish America

139. Romanticism and Realism in Spanish-American Literature

140. Modernismo

142. 20th-Century Spanish-American Literature: Fiction and the Essay

143. 20th-Century Spanish-American Literature: Poetry and Drama

144A. Mexican Literature

144B. Mexican Culture

144C. Special Topics in Mexican Studies

147. Central American Literature

149. Folk Literature of the Hispanic World

151B. Women in Hispanic Literature: Spanish America

M161. Film and Literature of the Spanish-Speaking World

191A. Variables Topics in Spanish: Studies in Hispanic Literature and Linguistics

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization

198. Senior Honors Research in Spanish

Theory and Methods

Portuguese (Spanish and Portuguese)

197. Individual Studies in Portuguese

Spanish (Spanish and Portuguese)

*119A. Introduction to Study of Literature: Prose

*119B. Introduction to Study of Literature: Poetry

*119C. Introduction to Study of Literature: Drama

197. Individual Studies in Spanish

World Arts and Cultures

122. Introduction to Folklore

(2) Fine Arts Field

Art History

*110F. Selected Topics in Modern Art: Latin America

*110G. Art and Politics in Contemporary Americas: Latin America

C110H. Latin American Art of the 20th Century

C117A. Pre-Columbian Art of Mexico

C117B. Pre-Columbian Art of the Maya

C117C. Pre-Columbian Art of the Andes

C117D. Aztec Art

117E. Colonial Latin American Art

118A. Arts of Oceania

Ethnomusicology

107. South American Indian Music

M108A-108B. Music of Latin America

113. Music of Brazil

M115. Musical Aesthetics in Los Angeles

M131. Development of Latin Jazz

161K. Advanced Music of Mexico

Film and Television (Film, Television, and Digital Media)

106C. History of African, Asian, and Latin American Film

World Arts and Cultures

120. Selected Topics in Cultural Studies: Latin America

M125A, M125B, M125C. Beyond the Mexican Mural
Theory and Methods
Art History
197. Individual Studies in Art

Ethnomusicology
180. Analysis of Traditional Music
183. Study of Ethnomusicology
197E. Individual Studies in Ethnomusicology

Film and Television (Film, Television, and Digital Media)
199. Special Studies in Film and Television

World Arts and Cultures
199. Directed Research in World Arts and Cultures

(3) Linguistics Field

Portuguese (Spanish and Portuguese)
100A. Phonology and Morphology
100B. Syntax
M118A. History of Portuguese and Spanish: Phonology
M118B. History of Portuguese and Spanish: Morphology and Syntax

Spanish (Spanish and Portuguese)
100A. Introduction to Study of Spanish Grammar: Phonology and Morphology
100B. Introduction to Spanish Grammar: Syntax
115. Applied Linguistics
M118A. History of Portuguese and Spanish: Phonology
M118B. History of Portuguese and Spanish: Morphology and Syntax
119A. Introduction to Study of Literature: Prose
119B. Introduction to Study of Literature: Poetry
119C. Introduction to Study of Literature: Drama
198. Senior Honors Research in Spanish

Theory and Methods

Linguistics
103. Introduction to General Phonetics
110. Introduction to Historical Linguistics
120A. Phonology I
120B. Syntax I
M146. Language in Culture
165A. Phonology II
165B. Syntax II
170. Language and Society: Introduction to Sociolinguistics
197. Individual Studies in Linguistics

Portuguese (Spanish and Portuguese)
197. Individual Studies in Portuguese

Spanish (Spanish and Portuguese)
197. Individual Studies in Spanish

(4) Arts and Humanities Electives

Chicana and Chicano Studies
141. Chicana and Latin American Women’s Narrative
142. Mesoamerican Literatures

Ethnomusicology
CM110A-CM110B. African American Musical Heritage

Film and Television (Film, Television, and Digital Media)
112. Film and Social Change

Latin American Studies
191. Interdisciplinary Topics in Latin American Studies
199. Special Studies in Latin American Studies

Theater
M103C. Origins and Evolution of Chicano Theater

World Arts and Cultures
131. Folk Art and Aesthetics

Core II: Social Sciences

Preparation

Required: Two courses from History 8A, 8B, 8C; Latin American Studies 97A (or 191 with department consent); Economics 1 and 2, or 100; Sociology M18 or Statistics 10.

Core Area

Required: Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. Core Concentration: Five courses as listed below in one of the five fields (anthropology and sociology or economics or geography or history or political science). Only one course from the electives list within the social sciences core area may be applied toward the core concentration

2. Theory and Methods: One course from theory and methods within the core concentration field

3. Internal Breadth: Four additional courses from the social sciences core area but outside the core concentration field. No more than two of these may be electives

External Breadth

Required: From the approved list, six upper division courses outside the social sciences core area distributed as follows: at least two courses in arts and humanities (e.g., fine arts) and two courses in ecology and environment (e.g., geography). The two additional courses may be from either arts and humanities or ecology and environment. No more than three external breadth courses may be electives.

Approved Undergraduate Courses
Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

(1) Anthropology and Sociology Field

Anthropology
114P. Ancient Civilizations of Mesoamerica
114Q. Topics in Archaeology of Mesoamerica
114R. Ancient Civilizations of Andean South America
173Q. Latin American Communities
174P. Ethnography of South American Indians
179. Selected Topics in Regional Cultures: Latin America

Sociology
186. Latin American Societies

Theory and Methods

Anthropology
C114S. Comparative Study of Ancient States: Latin America
115P. Archaeological Field Training

*115R. Strategy of Archaeology
*136Q. Laboratory for Naturalistic Observations: Developing Skills and Techniques
*139. Field Methods in Cultural Anthropology
M140. Language in Culture
*M180. Quantitative Methods in Anthropology
*M186. Models and Modeling in Anthropology
199. Directed Research in Anthropology

Sociology
112. Introduction to Mathematical Sociology
199. Directed Research in Sociology

(2) Economics Field

Economics
*110. Economic Problems of Underdeveloped Countries
*111. Theories of Economic Growth and Development
*112. Policies for Economic Development
120. International Economics
121. International Trade Theory
122. International Finance

Theory and Methods

Economics
*M135. Economic Models of Public Choice
*187. Upper Division Research Seminar: Applications of Economic Theory
*199A. Directed Research in Economics

Management
*180. Special Topics in Management

(3) History Field

History
157A. Early Latin America
157B. Indians of Colonial Mexico
157C. Latin America in the 19th Century
160A. Latin American Elite lore
160B. Mexican Revolution since 1910
161. Topics in Latin American History
162A. Modern Brazil
162B. Brazil and Atlantic World, 1500 to 1822
162C. History of Argentina
191E. Undergraduate Variable Topics Seminars: Latin America

Theory and Methods

History
191E. Undergraduate Variable Topics Seminars: Latin America
197. Individual Studies in History

Information Studies
M111C. Ethnic Groups and Their Bibliographies: Latin American History and Culture

(4) Political Science Field

Political Science
130. Politics of Latin American Economic Development
131. Latin American International Relations
139. Special Studies in International Relations: Latin America
149. Special Topics in American Government and Politics
154A-154B. Government and Politics in Latin America
169. Special Studies in Comparative Politics: Latin America
199. Directed Research in Political Science

Theory and Methods
Political Science
*104A-104B. Introduction to Survey Research
Core III: Ecology and Environment Preparation

Required: Two courses from History 8A, 8B, 8C; Latin American Studies 97A; Geography 5; Statistics 10.

Core Area

Required: Ten upper division courses from the approved list of Latin American courses distributed as follows:

1. Core Concentration: Five courses as listed below in geography. Only one course from the electives list within the ecology and environment core area may be applied toward the core concentration

2. Theory and Methods: One course from theory and methods within the core concentration field

3. Internal Breadth: Four additional courses from the ecology and environment core area to be selected from theory and methods core courses or electives

External Breadth

Required: From the approved list, six upper division courses outside the ecology and environment core area distributed as follows: at least two courses in arts and humanities (e.g., fine arts) and two courses in social sciences (e.g., history). The two additional courses required may be from either arts and humanities or social sciences. No more than three external breadth courses may be electives.

Approved Undergraduate Courses

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

Community Health Sciences

132. Health, Disease, and Health Services in Latin America

Geography

121. Conservation of Resources: Underdeveloped World

*126. Geography of Extinction

*M128. Global Environment and Development: Problems and Issues

133. Cultural Geography of Modern World

*142. Population Geography

181. Mexico, Central America, Caribbean

182A. Spanish South America

182B. Brazil

*199. Special Studies

Theory and Methods

Geography

*M171. Introduction to Spatial Statistics

(6) Social Sciences Electives

Anthropology

*153. Evolution of Human Societies

*M154Q. Gender Systems: Global

*161. Development Anthropology

*167. Urban Anthropology

*M168. Culture, Illness, and Healing

Chicana and Chicano Studies

120. Immigration and the Chicano Community

M124. From Latin America to the U.S.: Immigration and Latino Identity

125. U.S./Mexico Relations

132. Border Consciousness

*169. Representations of Indigenous Peoples in the Americas

M172V. Cultural Change and the Mexican People

Economics

*137. Introduction to Urban and Regional Economics

*180. Comparative Systems: Transformation of Socialist Economies

Geography

*108. World Vegetation

*111. Forest Ecosystems

*M115. Environmentalism: Past, Present, and Future

*129. Seminar: Environmental Studies

*140. Political Geography

History

M151A, M151B. History of Chicano Peoples

Latin American Studies

191. Interdisciplinary Topics in Latin American Studies

199. Special Studies in Latin American Studies

Political Science

*M122B. Global Environment and World Politics

*124. International Political Economy

144A. Ethnic Politics: Chicano/Latino Politics

*167A. Ideology and Development in World Politics

*167B. Comparative Development and Administration

*168. Comparative Political Analysis

Sociology

*116. Social Demography

*154. Race and Ethnicity: International Perspectives

*157. Social Stratification

*182. Political Sociology

184. Social Change

Chicana and Chicano Studies

M106. Health in Chicano/Latino Population

Community Health Sciences

*130. Nutrition and Health

Economics

*137. Introduction to Urban and Regional Economics

Geography

*108. World Vegetation

*111. Forest Ecosystems

*M115. Environmentalism: Past, Present, and Future

*126. Geography of Extinction

*M128. Global Environment and Development: Problems and Issues

*129. Seminar: Environmental Studies

*132. Food, Environment, and Agriculture

*140. Political Geography

Latin American Studies

191. Interdisciplinary Topics in Latin American Studies

199. Special Studies in Latin American Studies

Sociology

*116. Social Demography

Latin American Studies Minor

The interdisciplinary program leading to the Latin American Studies minor allows students to choose from a broad range of course offerings in various departments to develop professional and methodological skills with area expertise.

To enter the minor, students must have an overall grade-point average of 2.0 or better and have completed 45 units. For further information, contact Carolyn Ramirez-La Faso at (310) 206-6571.

Required Lower Division Courses (8 units): History 8A or 8B or 8C or Latin American Studies 97A, Spanish 25 or Portuguese 25.

Required Upper Division Courses (20 units): Five courses selected from the approved list of Latin American studies courses in at least two of the following fields: (1) arts and humanities (art history, ethnomusicology, folklore, Spanish and Portuguese), (2) ecology and environment (geography, public health), (3) social sciences (anthropology, economics, history, political science, sociology). If the social sciences field is selected, at least two courses must be taken in that field. No more than 4 units of course 199 may be applied toward the minor, and at least three upper division courses (12 units) must be taken in residence at UCLA.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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

Lower Division Course

97A. Introduction to Latin America. (4) (Formerly numbered 99.) Lecture, three hours. Interdisciplinary freshman/sophomore survey course designed as introduction to modern Latin America. P/NP or letter grading.

Upper Division Courses

191. Interdisciplinary Topics in Latin American Studies. (4) (Formerly numbered 197.) Seminar, four hours. Advanced interdisciplinary research seminar for juniors/seniors. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

199. Special Studies in Latin American Studies. (4 or 8) Limited to juniors/seniors. Intensive directed research program in which students conduct interdisciplinary research or complete internship with an international agency or program dealing with Latin America. Faculty sponsorship and written reports required.

Graduate Courses

M200. Latin American Research Resources. (4) (Same as History M265 and Information Studies M225.) Seminar, three hours. General and specialized materials in fields concerned with Latin American studies. Library research techniques provide experience and competency required for future bibliographic research and research sophistication as basis for enhanced research results.

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.)

M250A. Indians of South America. (4) (Same as Anthropology M272.) Lecture, three hours. Survey of literature and research topics related to Indian cultures of South America. May be repeated for credit.

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University's cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.

M260. Health and Culture in the Americas. (4) (Same as Anthropology M266 and Community Health Sciences M260.) Lecture, three hours; discussion, one hour. Preparation: bilingual skills (English/Spanish) for Spanish discussion section. Recommended prerequisite: Community Health Sciences 132. Health issues throughout the Americas, especially indigenous/Mestizo Latin American populations. Holistic approach covering politics, economics, history, geography, human rights, maternal/child health, culture. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M264 and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with a variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

M268A-M268B. Seminars: Recent Latin American History. (4) (Same as History M268A-M268B.) Seminar, three hours. Course M268A is requisite to M268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated, but only 4 units may be applied toward the minimum graduate course requirement. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination. (4) 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.

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.

Course List

Approved Graduate Courses

Special courses which may be applied toward the M.A. degree requirements with advanced departmental approval are indicated with asterisks. These courses do not have any exclusive focus on Latin America but provide an opportunity for students to relate a particular perspective or phenomenon to Latin America.

Refer to the Latin American Studies undergraduate section for the lists of approved undergraduate courses.

Fine Arts

Art History

*201. Topics in Historiography of Art History

C218A. Pre-Columbian Art of Mexico

C218B. Pre-Columbian Art of the Maya

C218C. Pre-Columbian Art of the Andes

C218D. Aztec Art

219B. Pre-Columbian Art

220. Oceanic, Pre-Columbian, African, and Native North American Art

C254. Latin American Art of the 20th Century

596. Directed Individual Study or Research

Ethnomusicology

201. History of Ethnomusicology

208. Seminar: Latin American Music

*290. Seminar: Ethnomusicology

596. Directed Individual Studies

Film and Television (Film, Television, and Digital Media)

276. Seminar: Non-Western Films — Mexican Cinema

*298A-298B. Special Studies in Film and Television

Theater

*210. Topics in World Theater and Drama

Languages

Indigenous Languages of the Americas (Linguistics)

*18A-18B-18C. Elementary Quechua

Portuguese (Spanish and Portuguese)

*1. Elementary Portuguese

2. Elementary Portuguese

3. Intermediate Portuguese

25. Advanced Portuguese

102A-102B. Intensive Portuguese

*105. Advanced Composition and Style

Spanish (Spanish and Portuguese)

*1. Elementary Spanish

*1G. Reading Course for Graduate Students

2. Elementary Spanish

2G. Reading Course for Graduate Students

3. Elementary Spanish

4. Intermediate Spanish

5. Intermediate Spanish

25. Advanced Spanish and Composition

*105. Spanish Composition

Linguistics

Anthropology

204. Core Seminar: Linguistic Anthropology

Linguistics

*210A. Field Methods I

*210B. Field Methods II

*220. Linguistic Areas

*225. Linguistic Structures

M246C. Topics in Linguistic Anthropology

Portuguese (Spanish and Portuguese)

*202. Synchronic Morphology and Phonology

*204A-204B. Generative Grammar

*M205A-M205B. Development of Portuguese and Spanish Languages

Spanish (Spanish and Portuguese)

*202A. Phonology

*202B. Morphology

*204A-204B. Generative Syntax and Semantics

*M205A-M205B. Development of Portuguese and Spanish Languages

*209. Dialectology

*256A-256B. Studies in Spanish Linguistics

*257. Studies in Dialectology

Literature

C231. Colonial Brazilian Literature and Culture

C232. 19th-Century Brazilian Literature and Culture

C233. Machado de Assis

C234. Brazilian Modernism

C235. 20th-Century Brazilian Literature

M249. Folk Literature of Spanish and Portuguese Worlds

254. Studies in Early Brazilian Literature

255. Studies in Modern Brazilian Literature
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<th>Archaeology</th>
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<tr>
<td>240. Health Care Issues in International Perspective</td>
<td>M201C. Regional Analysis in Archaeology</td>
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<tr>
<td>Information Studies</td>
<td>*C259. Fieldwork in Archaeology</td>
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<tr>
<td>207. International Issues and Comparative Research in Library and Information Science</td>
<td>596. Individual Studies for Graduate Students</td>
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<td>M225. Latin American Research Resources</td>
<td>Economics</td>
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<td>596. Directed Individual Study or Research</td>
<td>281A. International Trade Theory</td>
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<td>Law</td>
<td>281B. International Finance</td>
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<tr>
<td>270A. International Trade Law</td>
<td>282A-28BZ. Topics in International Economics: Latin America</td>
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<td>271. International Business Transactions</td>
<td>286A. Economic Development</td>
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<td>290A. International Environmental Law</td>
<td>286B. Cost-Benefit Analysis of Development Projects</td>
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<td>Management</td>
<td>287A-287Z. Topics in Development Economics</td>
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<td>205A. International Business Economics</td>
<td>596. Individual Study</td>
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<td>205B. Comparative Market Structure and Competition</td>
<td>Geography</td>
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<td>209. Selected Topics in Business Economics</td>
<td>223. Seminar: Humid Tropics</td>
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<td>234A. International Financial Markets</td>
<td>*M229. Resource-Based Development</td>
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<td>261B. Global Marketing Management</td>
<td>234. Environment and Subsistence in Indigenous Countries</td>
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<td>296A. International Business Management</td>
<td>240. Advanced Political Geography: Geopolitics</td>
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<td>297A. Comparative and International Management</td>
<td>242. Advanced Population Geography</td>
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<td>297C. International Business Law</td>
<td>262. South America</td>
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<td>297D. International Business Negotiations</td>
<td>292. Advanced Regional Geography: Selected Regions — Latin America</td>
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<td>297E. Business and Economics in Emerging Markets</td>
<td>596. Directed Individual Study or Research Historical Studies</td>
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<tr>
<td>298B. Special Topics in International and Comparative Management</td>
<td>2001. Advanced Historiography: Latin America</td>
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<td>298C. Special Topics in Sociotechnical Systems</td>
<td>2011. Topics in History: Latin America</td>
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<td>298D. Special Topics in Management</td>
<td>M265. Latin American Research Resources</td>
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<tr>
<td>596. Research in Management</td>
<td>266A-266B. Seminars: Colonial Latin American History</td>
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<tr>
<td>Public Health</td>
<td>267A-267B. Seminars: Latin American History, 19th and 20th Centuries</td>
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<td>596. Directed Individual Study or Research (select-ed from any of the public health departments)</td>
<td>M268A-M268B. Seminars: Recent Latin American History</td>
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<tr>
<td>Urban Planning</td>
<td>Latin American Studies</td>
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<td>230. Introduction to Regional Planning</td>
<td>M200. Latin American Research Resources</td>
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<td>234A. Development Theory</td>
<td>205. Latin Americanist Scholarship</td>
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<td>234B. Rural Development Issues</td>
<td>M250A. Indians of South America</td>
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<td>M234C. Resource-Based Development</td>
<td>250B. Interdisciplinary Seminar: Latin American Studies</td>
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<td>235A-235B. Urbanization in Developing World I, II</td>
<td>250C. Interdisciplinary Topics in Latin American Studies</td>
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<td>*M236A. Theories of Regional Economic Development</td>
<td>M260. Health and Culture in the Americas</td>
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<td>M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness</td>
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<td>236B. Globalization</td>
<td>Political Science</td>
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<td>236C. Advanced Workshop on Regions in World Economy</td>
<td>220A. International Relations Core Seminar I</td>
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<td>239. Special Topics in Regional and International Development</td>
<td>*227. Foreign Policy Process</td>
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<td>269. Special Topics in Environmental Analysis and Policy</td>
<td>239. Selected Topics in International Relations</td>
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<td>596. Research in Planning</td>
<td>240A-240B. Seminars: Comparative Politics</td>
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<tr>
<td>Social Sciences</td>
<td>244. Latin American Politics</td>
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<td>Anthropology</td>
<td>255. Seminar: Political Change</td>
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<tr>
<td>*204. Core Seminar: Linguistic Anthropology</td>
<td>*259. Selected Topics in Comparative Politics</td>
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<td>*214. Selected Topics in Prehistoric Civilizations of the New World</td>
<td>Sociology</td>
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<td>M241. Topics in Linguistic Anthropology</td>
<td>*235. Theories of Ethnicity</td>
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<td>M242. Ethnography of Communication</td>
<td>*259. Social Structure and Economic Change: Historical and Comparative Perspectives</td>
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<td>*260. Urban Anthropology</td>
<td>278. Sociology of Latin America</td>
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Katherine Stone, J.D.
Lynn A. Stout, M.A., J.D.
Samuel C. Thompson, M.A., J.D., LL.M.,
Jonathan D. Varat, J.D.
Eugene Volokh, J.D.
John S. Wiley, M.A., J.D.
Adam Winkler, M.A., J.D., Acting
Stephen C. Yoazell, M.A., J.D. (David G. and Dallas P. Price Professor of Law)
Jonathan Zaslott, M.A., M.Phil., J.D., Ph.D.
Noah D. Zatz, M.A., J.D., Acting
Eric M. Zolt, M.B.A., J.D.

Professors Emeriti
Benjamin Aaron, LL.B.
Allison G. Anderson, J.D.
Michael R. Asimow, LL.B.
Edgar A. Jones, Jr., LL.B.
Robert L. Jordan, LL.B.
Kenneth L. Karst, LL.B. (David G. and Dallas P. Price Professor Emeritus of Law)
William A. Klein, LL.B. (Richard C. Maxwell Professor Emeritus of Law)
Leon Letwin, Ph.B., LL.B., LL.M.
Richard C. Maxwell, LL.B. (Connect Professor Emeritus of Law)
Henry W. McGee, Jr., Ph.D., LL.M.
William M. McGovern, Jr., LL.B.
Herbert Morris, LL.B., Ph.D.
Arthur I. Rosett, LL.B.
Murray L. Schwartz, LL.B., LL.D. (David G. and Dallas P. Price Professor Emeritus of Law)
Philip R. Trimbile, M.A., LL.B.
William D. Warren, J.D., J.S.D. (Connect Professor Emeritus of Law)

Lecturers
Michelle M. Ahnn, J.D.
Amy Atchinson, J.D., M.L.I.S.
Jack Beard, J.D., LL.M.
Stuart Biegel, J.D., M.A.
Marcela Butel, J.D.
Laura Cadra, M.L.I.S.
George S. Cardona, J.D.
Brian Cartwright, J.D., Ph.D.
Pati ...
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 issues of race and racism, beginning with mid-19th-century transition from Mexican Alta California to U.S. territory and statehood. Topics include state measures affecting California Indians in the 19th century, African 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. (3) Lecture, three hours; discussion, six 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 due process clause of U.S. Constitution, including freedom of speech and press, religious freedom, right to assemble, right to Due Process, and right to equal protection of the law. P/NP or 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 interests of instructors or students. May be repeated for credit. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. 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 authors of papers. P/NP or letter grading.

191. Research Seminar: California Legal History. (4) Seminar, two hours. Requisite: course 170. Research project, in consultation with faculty member and using original and secondary materials, to be conducted, followed by major presentation of student work to class and writing of major research paper. Letter grading.

193. Journal Club Seminars: Law. (1) Seminar, one hour; discussion, two hours. Corequisite: course 187A. Adjunct course limited to undergraduate students taking law colloquium. Intensive review and follow-up of scholarly papers presented in colloquium series. Reading of legal cases and supplemental material to provide legal framework for each scholarly paper presented in colloquium. Supervised by faculty member in charge of colloquium series. P/NP or letter grading.


176. Lesbian, Gay, Bisexual, and Transgender Studies

Interdepartmental Minor College of Letters and Science

UCLA

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e-mail: lgbt@humnet.ucla.edu
http://www.humnet.ucla.edu/humnet/ltgbts/

James A. Schultz, Ph.D., Director
Sandra Harding, Ph.D., Chair

Faculty Advisory Committee
Eric R. Aivis, Ph.D. (Chicano and Chicano Studies, History)
Karen B. Brodkin, Ph.D. (Anthropology)
Sue-Ellen Case, Ph.D. (Theater)
Susan D. Cochran, M.S., Ph.D. (Epidemiology)
Alicia Gaspar de Alba, Ph.D. (Chicano and Chicano Studies, English)
David H. Gere, Ph.D. (World Arts and Cultures)
Sandra Harding, Ph.D. (Education)
John E. Horton, Ph.D., Emeritus (Sociology)
Carolee Howes, Ph.D. (Education)
Arthur L. Little, Jr., Ph.D. (English)
Christine A. Littleton, J.D., (Law) ex officio
Christopher J. Looby, Ph.D. (English)
Mitchell B. Morris, Ph.D. (Musicology)
William B. Rubenstein, J.D. (Law)
James A. Schultz, Ph.D. (Germanic Languages) ex officio
Mark A. Schuster, M.D., Ph.D. (Health Services)

Scope and Objectives

Although lesbian, gay, bisexual, and transgender studies has only recently found a place in university curricula, the field actually represents the intersection of two traditions that have existed for thousands of years. The better known is the learned tradition, which, at least since the end of the ancient world, has been overwhelmingly hostile. More affirmative accounts have condemned the sodomite, nineteenth-century medicine pathologized the invertebrates, and until very recently psychiatry felt called on to “cure” the homosexual. For at least as long, however, women and men attracted to others of their own sex have kept alive another affirmative tradition, a knowledge of their past that sustained them, often in the face of overwhelming official hostility. The guests at Plato’s Symposium looked back to Achilles and Patroclus; women-loving-women in early twentieth-century Paris remembered Sappho.

After the birth of the modern gay liberation movement in 1969, this underground knowledge came out of the closet and found a public voice sufficiently strong to mount a sustained challenge to the official teachings concerning minority sexualities and genders. This challenge led to a dramatic increase in research on same-sex desire and cross-gender phenomena, most of it the work of scholars without academic affiliations. Inspired by these accomplishments, students and faculty at colleges and universities eventually mustered the courage to address similar topics, thereby transforming — partly by assimilation, partly by contestation — the previously hostile learned tradition. This original rather disparate work gradually coalesced into lesbian, gay, bisexual, and transgender studies, which, over the last decade, has developed into an academic discipline of remarkable breadth and vitality. The field embraces work in genetics and cultural studies, literature and anthropology, the health sciences, history, and the visual arts. It ranges from archival research to the elaboration of queer theory, from the analysis of constitutional law to questions of public health, from the study of identical twins to the study of popular culture.

Although the initial focus in lesbian, gay, bisexual, and transgender studies is usually on minority sexualities and genders, it is impossible to study them in any meaningful way without raising questions about sexuality and gender in general. And those questions cannot be responsibly answered without considering class, race, ethnicity, history, political economy, 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, gender, and culture. It represents an important vantage point from which to investigate the social construction of gender and 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 relation of culture, gender, and sexuality.

UCLA’s minor in Lesbian, Gay, Bisexual, and Transgender Studies provides the opportunity to study sexuality from a variety of interdisciplinary perspectives. Interdisciplinarity is assured by requiring students to take at least one course each in the life sciences, social sciences, and humanities. In addition, seniors in the minor are expected to do an internship in a community organization, thereby acquiring a kind of knowledge not usually available in the classroom. After completing the minor, stu-
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 (32 units):
- Lesbian, Gay, Bisexual, and Transgender Studies M114, 195, and six additional courses, including at least one each in the humanities, life sciences, and social sciences, to be selected from the approved list of courses available in the program office each term. Students may petition to apply a related course not on the list toward the six-course requirement 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 advisers in the program office who can help them plan their course of study.

All minor courses must be taken for a letter grade, with 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


M101C. Special Topics in Lesbian and Gay Literature. (5) (Formerly numbered M197D.) (Same as English M101C and Women's Studies M101C.) Lecture, four hours. Requisite: English Composition 3 or 3H. Variable specialized studies course in lesbian and gay literature. Topics focus on particular problem or issue in terms of its relationship to lesbian and gay culture and writing. May be repeated for credit. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (3) (Same as Women's Studies M114.) Lecture, discussion, three hours. Requisite: course M114 or Women's Studies 10. Course in the program office each term to help students plan their course of study. Students meet on regular basis with instructor and scheduled meetings to be arranged between faculty member and student. Individual contract required. Individual contract required. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation. (4) (Same as Women's Studies M115.) Lecture/discussion, three hours. Requisite: course M114 or Women's Studies 10. Course in the program office each term to help students plan their course of study. Students meet on regular basis with instructor and scheduled meetings to be arranged between faculty member and student. Individual contract required. Individual contract required. P/NP or letter grading.


M118. Queering American History. (4) (Same as Women's Studies M118.) Lecture, four hours. History of sexual and gender minorities in the U.S. Topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory and politics. P/NP or letter grading.

M133. Chicana Lesbian Literature. (4) (Same as Chicana and Chicano Studies M133 and Women's Studies M133.) Lecture, three hours. Exploration of intersection of radical First and Third World feminist politics, lesbian sexuality and its relationship to Chicana identity, representation of Chicana in Chicana literature, meaning of familia in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/Chicano studies. Letter grading.

M134. Cultural Production of Gender and Sexuality: Homosexualities. (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. Gay and Lesbian Perspectives in Pop Music. (8) (Same as Music History M137.) Lecture, four hours; discussion, one hour. Survey of English-language popular music in the 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

M147A. Psychology of Lesbian Experience. (4) (Same as Psychology M147A and Women's Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course M147 or Psychology 10 or Women's Studies 10. Designed for seniors/juniors. Review of research and theory in psychology and women's studies to examine various aspects of lesbian experience, impact of bisexual identity, experiences of lesbian and gay individuals in minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in social context. P/NP or letter grading.

150. Speaking Out: Public Speaking on Lesbian, Gay, Bisexual, and Transgender Issues. (1) Discussion, two hours. Interdisciplinary course designed to teach leadership and public speaking skills on lesbian, gay, bisexual, and transgender issues. Sexual identity development, personal growth, and lesbian, gay, bisexual, and transgender history interact with public speaking and leadership skills. Topics include sexual identities, family, leadership, and public speaking performance. P/NP or letter grading.

M167. Contested Sexualities. (4) (Same as Sociology M167 and Women's Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

187. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies. (4) (Formerly numbered 197.) Lecture, four hours; discussion, three hours. Study of selected topics in lesbian, gay, bisexual, and transgender studies. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

195. Community or Corporate Internship in Lesbian, Gay, Bisexual, and Transgender Studies. (4) (Formerly numbered 195.) 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. Individual contract with supervising faculty member required. Individual contract required. P/NP or letter grading.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) (Formerly numbered 197.) 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. Individual contract required. P/NP or letter grading.

LIFE SCIENCES

College of Letters and Science

UCLA

250 Life Sciences
Box 951606
Los Angeles, CA 90095-1606
(310) 825-6614
http://www ls.core.ucla.edu

Scope and Objectives

Students who wish to study life sciences have a choice of 10 majors, all of which lead to a Bachelor of Science degree: Biology, Ecology, Behavior, and Evolution, Marine Biology, and Plant Biology (Ecology and Evolutionary Biology Department), Microbiology, Immunology, and Molecular Genetics (Microbiology, Immunology, and Molecular Genetics Department), Molecular, Cell, and Developmental Biology and Plant Biotechnology (Molecular, Cell, and Developmental Biology Department), Neuroscience (Neuroscience Interdepartmental Program), Physiological Science (Physiological Science Department), and Psychology (Psychology Department). This choice reflects
the diversity of undergraduate instruction in life sciences at UCLA. Despite this diversity, all of these majors require a common core of introductory courses that forms the foundation for any study of life sciences and that is required for more advanced courses in each major. The common core includes courses in chemistry, physics, and mathematics, as well as introductory courses in evolution and biodiversity, cellular and organismal biology, molecular biology, and genetics. During the first two years, students may also gain experience in a research laboratory through the Student Research Program. For more information on each major, see the individual departmental listings in this section of the catalog. For additional information on the life sciences core curriculum, see http://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 10 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: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C— or better and 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 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.

Life Sciences

Upper Division Courses

100HA-100HB-100HC. Advanced Research in Genes, Genetics, and Genomics. (4-4-4) Lecture, two hours; laboratory, 10 hours. Requisite: course 10H. Course 100HA is requisite to 100HB, which is requisite to 100HC. Designed for undergraduates who are committed to pursuing research. Advanced research training in genetics, cell and developmental biology, bioinformatics, functional genomics. Techniques include electron microscopy, other light microscopies, immunohistochemistry. Prerequisites: Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

Upper Division Courses

1. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; 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. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: Chemistry 14A or 20A. Not open for credit to students with credit for former course 2W. 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. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: course 2 or former course 2W, Chemistry 14C or 30A. Introduction to basic principles of biochemistry and molecular biology. Letter grading.


5. 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. P/NP or letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (6) 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.

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. P/NP or letter grading.

1. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; 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. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: Chemistry 14A or 20A. Not open for credit to students with credit for former course 2W. 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. (5) Lecture, three hours; discussion/laboratory, three hours (alternate weeks). Enforced requisite: course 2 or former course 2W, Chemistry 14C or 30A. Introduction to basic principles of biochemistry and molecular biology. Letter grading.


5. 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. P/NP or letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (6) 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.

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. P/NP or letter grading.
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Linguistics B.A.
The B.A. degree program 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 or graduate courses, including Linguistics 103, 110, 120A, 120B, 130 or 132, and two courses from 125, 165A, 165B (students may substitute courses 200A and 200B for 165A and 165B respectively if they receive grades of A in 120A and 120B respectively and have consent of instructor). Both courses 165A and 165B, or 200A and 200B, are recommended for students planning linguistics graduate work. The remaining four courses are electives, three of which must be linguistics courses (no more than one course from 197, 198A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Anthropology 143, Classics 180, English 121, 122, Philosophy 127A, 127B, 172, Psychology 120A, 124E, 133C, or an upper division course in a foreign language beyond the

Assistant Professors
Marcus A. Kracht, Ph.D.
Philippe D. Schlenker, Ph.D.
Colin C. Wilson, Ph.D.
Kie Ross Zuraw, Ph.D.

Adjunct Professors
Lynne E. Bernstein, Ph.D.
Kathleen R. Dahlgren, Ph.D.

Scope and Objectives
The goal of linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. 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 facility 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 science 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 which 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 three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major that concentrates entirely on an African language area. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have nonuniversity teaching careers as goals, and the African major is for students with specific African interests.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.
sixth term. Nonlinguistics courses not on the list may be used as electives only in consultation with an adviser.

Linguistics 198A and 198B, or 199, are recommended for students planning to pursue graduate work in linguistics, since they provide an opportunity to engage in independent research and to write a paper that can be submitted to graduate admissions committees. To enroll in the courses, students must consult with the department's senior essay and honors counselor.

**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: two years of either Chinese, Japanese, or Korean, one introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization course, and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/admin_tr.htm](http://www.admissions.ucla.edu/prospect/admin_tr.htm) for up-to-date information regarding transfer selection for admission.

**The Major**


**Linguistics and Computer Science B.A.**

**Preparation for the Major**

Required: Linguistics 20, Mathematics 31A, 31B, Philosophy 31, Program in Computing 10A, 10B, 10C, 30, completion of the sixth term in one foreign language or the third term in each of two foreign languages. Mathematics 61 is recommended.

**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/admin_tr.htm](http://www.admissions.ucla.edu/prospect/admin_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 121, 122 (or Applied Linguistics and Teaching English as a Second Language C116), 140A, and three electives from 141A, 141B, 142A, 142B, 143, the 150 series (one course only), the 160 series (one course only), and the 170 series (one course only).

**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/admin_tr.htm](http://www.admissions.ucla.edu/prospect/admin_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 121, 122 (or Applied Linguistics and Teaching English as a Second Language C116), 140A, and three electives from 141A, 141B, 142A, 142B, 143, the 150 series (one course only), the 160 series (one course only), and the 170 series (one course only).

**Linguistics and French B.A.**

**Preparation for the Major**

Required: Linguistics 20, French 1, 2, 3, 4, 5, 6, 12, 15, completion of the equivalent of the third term of a second foreign language.

**Transfer Students**

Transfer applicants to the Linguistics and French major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of French, one introduction to linguistics course, one French literature course, one French diction course, and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at [http://www.admissions.ucla.edu/prospect/admin_tr.htm](http://www.admissions.ucla.edu/prospect/admin_tr.htm) for up-to-date information regarding transfer selection for admission.
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, 32, and two courses from 1, 6, 7, 21, 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 Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two symbolic logic courses and two courses from Western philosophy, political philosophy, philosophy of mind, or skepticism and rationality, 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: Eleven upper division courses (six in linguistics and five in psychology) as follows: Linguistics 103, 120A, 120B, 130, 132, and one upper division elective in linguistics (multiple-listed courses may not be applied). Linguistics C135 or 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor) is strongly recommended. Also required are Psychology 120A, 121, 135B, and two electives to be selected from 115, 116, M117C, 118, M119L, 124A, 124B, 124C, 124E, 130, 133C, 133E, 133F, 186A, 186B.

Linguistics and Scandinavian Languages B.A.

Preparation for the Major

Required: Linguistics 20, Scandinavian 1, 2, 3, 4, 5, or 11, 12, 13, 14, and 15, or 21, 22, 23, 24, and 25, completion of the equivalent of the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and Scandinavian Languages major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish, one introduction to linguistics course, and one year of a second foreign language.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Thirteen upper division courses as follows: Linguistics 103, 120A, 120B, 125, 165B (or 200B with a grade of A in 120B and consent of instructor), two upper division electives in linguistics; six upper division courses in philosophy, including at least five from Philosophy 124 through 135, 170, 172, 174, 180, 181, 184, of which at least two must be from 127A, 127B, 172.
The Major

Required: A minimum of 13 upper division courses, including three courses in an African language; African Languages M187, 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 English 114, Ethnomusicology C136A, C136B, 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 non-African languages are strongly recommended: Afrikaans, Arabic, Dutch, French, German, Portuguese.

Honors Program

Honors in linguistics are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization

Students in any of the linguistics majors (except Linguistics and Computer Science) may select a specialization in Computing by (1) satisfying all the requirements for a bachelor's degree in the specified major and (2) completing Program in Computing 10A, 10B, 10C, 60, Linguistics C180, 185A. Students graduate with a bachelor's degree in their major and a specialization in Computing.

Linguistics Minor

The Linguistics minor is designed for students where training in linguistic analysis could be an enhancement to their major programs and to students who are interested in language(s) but do not have time in their undergraduate programs to pursue multiquarter language sequences. In addition, the minor provides students with a way to design "custom" joint degrees with linguistics where the Linguistics Department does not have an existing joint degree program combining linguistics and another field.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower Division Course (5 units): Linguistics 20.

Required Upper Division Courses (27 to 30 units): Six courses, which must include Linguistics 103, 120A, 120B, two elective courses selected from 104 through 185B, and an additional elective linguistics course, which may be upper or lower division.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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 Linguistics offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Linguistics.

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. Enforced requisite: course 1C. Course 2A is enforced requisite to 2B, which is enforced requisite to 2C. P/NP or letter grading.

7A-7B-7C. Elementary Zulu. (4-4-4) Lecture, five hours. Course 7A is enforced requisite to 7B, which is enforced requisite to 7C. Most widely spoken of the Nguni languages of South Africa, mutually intelligible with other members of this group. P/NP or letter grading.

8A-8B-8C. Intermediate Zulu. (4-4-4) Lecture, four hours. Enforced requisite: course 7C. Course 8A is enforced requisite to 8B, which is enforced requisite to 8C. P/NP or letter grading.

11A-11B-11C. Elementary Yoruba. (4-4-4) Lecture, five hours. Course 11A is enforced requisite to 11B, which is enforced requisite to 11C. Major language of western Nigeria. P/NP or letter 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.

15. Intermediate Swahili. (4-4-4) Lecture, 20 hours (eight weeks). Intensive instruction (equivalent to courses 1A, 1B, 1C) in Swahili, major language of East Africa, particularly Tanzania. Letter grading.


17. Intermediate Zulu. (4-4-4) 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. Intermediate Zulu. (4-4-4) 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.


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 Senegal. 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.

Graduate Courses


596. Directed Studies. (1 to 8) Tutorial, to be arranged. Directed individual study or research. Four units may be applied toward M.A. course requirements. May be repeated for credit. S/U grading.

Indigenous Languages of the Americas

Lower Division Courses

17. Intensive Elementary Quechua. (12) Lecture, 15 hours; laboratory, five hours. Intensive course equivalent to courses 18A, 18B, 18C. Language of the Incas and its present-day dialects, as spoken in Andean South America. Offered in summer only. Letter grading.

18A-18B-18C. Elementary Quechua. (4-4-4) Lecture, five hours. Course 18A is enforced requisite to 18B, which is enforced requisite to 18C. Language of the Incas and its present-day dialects, as spoken in Andean South America.

Upper Division Courses

119A-119B-119C. Advanced Quechua. (4-4-4) Requisite: course 18C. Course 119A is requisite to 119B, which is requisite to 119C. Readings in Quechua. Dialectal and stylistic variation. Discussions mainly in Quechua.

Graduate Course

596. Directed Studies in Quechua. (1 to 8) 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 structure, 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.

2. Language in the U.S. (5) Lecture, four hours; discussion, one hour. Survey of languages of the U.S. (American Indian languages, oldest immigrant languages, ethnic and regional varieties of English, and newest arrival languages) and social and political aspects of American language use. P/NP 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/NP or letter grading.

5. Historical Linguistics. (5) 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.

6. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour. Preparation: one prior linguistics course or course 20 concurrently. Phonetics of a variety of languages and phonetic phenomena that occur in languages of the world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.

7. Introduction to American Indian Languages. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 103, 120A. Methods and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

8. History of Language. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 130A, 120A. Historical development of language, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

9. American Indian Languages. (5) Lecture, four hours; discussion, one hour. Strongly recommended preparation: course 20. Survey of genetic, areal, and typological classification of American Indian languages; writing systems for American Indian languages; American Indian languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

10. Historical Linguistics. (5) Lecture, four hours; discussion, one hour. Requisites: courses 20, 130A, 120A. Methods and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

11. American Indian Languages. (5) Lecture, four hours; discussion, one hour. Strongly recommended preparation: course 20. Survey of genetic, areal, and typological classification of American Indian languages; writing systems for American Indian languages; American Indian languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

C140. Bilingualism and Second Language Acquisition. (5) (Formerly numbered 140.) Lecture, four hours; discussion, one hour. Requisites: courses 120A, 120B, 130. Study of childhood bilingualism and adult and second child language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2 bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C244. P/NP or letter grading.

M146. Language in Culture. (5) Same as Anthropology M140.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 20 or Anthropology 33. Study of language as an aspect of culture; relation of habitual thought and behavior to language; and language and the 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 archaeology. P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, four hours; discussion, four hours; lecture. Requisite: course 1 or 20. Survey of Indo-European languages, 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. (6) Discussion, four hours; individual or group sessions, one to two hours. Requisites: courses 103, 120A, 120B. Analysis of a language unknown to members of class from data elicited from a native speaker of the language.

165A. Phonology II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120A (undergraduate with grade of A in course 120A or 200A, with consent of instructor). Further study in phonological theory and analysis: autosegmental theory, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour. Requisite: course 120B. Recommended for students who plan to do graduate work in linguistics. Form of grammars, word formation, formal and subuniversal universals in syntax, relation between syntax and semantics, P/NP or letter grading.

170. Language and Society: Introduction to Sociolinguistics. (4) Requisite: 20; Study of patterns common to many different languages; social dialects and social styles in language; problems of multilingual societies.

175. Linguistic Change in English. (5) Lecture, four hours. Requisites: courses 110, 120A, 120B. Principles of linguistic change as exemplified through detailed study of history of English pronunciation, lexicology, and syntax. P/NP or letter grading.


M176B. Structure of Japanese II. (4) (Same as Japanese CM123.) Lecture, three hours. Recommended preparation: two or more years of Japanese language study. Survey of Japanese language at three different sentence levels of organization: (1) word level — word class, verbal morphology and semantics; (2) clause/sentence level — grammatical constructions; (3) discourse level — point of view, ellipsis, topicalization. Letter grading.

M177. Structure of Korean. (4) (Same as Korean CM120.) Lecture, three hours. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Letter grading.


185A. Computational Linguistics I. (5) (Formerly numbered C185A.) Lecture, four hours; laboratory, one hour. Requisite: courses 120A, 120B, Program in Computing 108B. Recommended: course 165B or 200B, Program in Computing 60. 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) (Formerly numbered C185B.) Lecture, four hours; laboratory, one hour. Requisite: course 185A. 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. P/NP or letter grading.

191. Variable Topics in Linguistics. (4) (Formerly numbered 197.) 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.

197. Individual Studies in Linguistics. (2 to 4) (Formerly numbered 199.) Tutorial, four hours. Requisite: course 1 or 20. Limited to graduate students. 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. Credit granted only for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) (Formerly numbered 196A.) 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. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) (Formerly numbered 196B.) Tutorial, to be arranged. Requisite: course 198A. Limited to seniors. Completion of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consult professor in charge to enroll. Individual contract required. 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. Interaction of phonology with morphology and syntax, syllable structure, stress.

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 selected topics in theory of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical function, and head-complement relations.

200C. Semantic Theory I. (4) Lecture, four hours. Requisite: course C180 or C208. Overview of current results and research methods in linguistic semantics. Topics include coreference systems, agreement systems, deictic, pronominalization, formal semantic interpretation, syntax and LF, tense, ellipsis, and focus. Letter grading.

201. Phonological Theory II. (4) Requisite: course 200A. Continuation of course 200A. Second course in two-course survey of current research in phonological theory. Topics include autosegmentation (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology.


203. Phonetic Theory. (4) Requisite: course 120A. Preliminaries to speech analysis. Functional anatomy of vocal organs; fundamental principles of acoustics and of acoustic theory of speech production; issues in perception of speech; nature and design of feature systems for phonetic and phonological analysis.

204. Experimental Phonetics. (4) Requisite: course 103. Use of laboratory equipment to investigate articulatory, auditory, and perceptual properties of speech. Topics include experimental design and statistics; theoretical basis of acoustic structure of speech sounds; computer-based speech processing, analysis of speech production, perception, and acoustic evaluation of synthetic speech.


206. Syntactic Theory II. (4) Requisite: course 200B. In-depth introduction to selected topics in Theory of movement processes and topics selected from following areas: WH-movement and related rules, subcategorization and other constraints on movement; ECP and related conditions; distribution of empty categories; resumptive pronoun construction; paradigmatic variation in movement constructions; LF WH-movement; filters; reconstruction; parasitic gaps; barriers theory; control theory; null subject parameter.


C200. Mathematical Structures in Language I. (5) Lecture, four hours; discussion, one hour. Requisite: course 120B. Recommended: Philosophy 31. Prior mathematical knowledge, knowledge of mathematical concepts, such as transitivity of quantifiers, understanding of quantifiers in natural language processing, including basic syntactic parsing strategies, with brief glimpses of semantic representation, reasoning, and response generation. S/U or letter grading.

C209A. Computational Linguistics I. (5) Formerly numbered C209A. Lecture, four hours; laboratory, one hour. Requisite: course 200A or equivalent course in computational linguistics. Introduction to computational linguistics, with an emphasis on linguistics. Cross-disciplinary and interdisciplinary perspectives on computational linguistics.

C209B. Computational Linguistics II. (5) Formerly numbered C209B. Lecture, four hours; laboratory, one hour. Requisite: course 200A. 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.

C209C. Computational Semantics. (4) Lecture, four hours. Preparatory knowledge of semantics. Requisite: course C185A or C209A. Study of algorithms to compute and reason with meanings of sentences and texts. Phenomena such as anaphor resolution, presupposition, coreference, quantifiers, object introduction, and space to be covered. S/U or letter grading.

210A. Field Methods I. (4) Lecture, four hours. Preparation: grade of B or better in course 103 or in examination on current phonology. Requisites: courses 200A, 200B. Analysis of a language unknown to members of class from data elicited from a native speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be repeated for credit with topic change. S/U or letter grading.

210B. Field Methods II. (4) Lecture, four hours. Requisite: course 210A in preceding term. Because different languages are involved in different years, course 210B can only be taken as direct continuation of 210A in same year. When there are multiple sections, continuation must be in same section. May be repeated for credit with topic change. S/U or letter grading.

211. Intonation. (4) Formerly numbered C211. Lecture, two hours. Recommended requisite: course 204. Survey of intonational theory for English and other languages. Syntactic and phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

212. Learnability Theory. (4) Requisite: course C180 or C208. Survey of some of most significant results on capabilities of learners, given precise assumptions about their memory, time, and computational power, and precise assumptions about information provided by the environment.

213A. Grammatical Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 233. Survey of theoretical perspectives and contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.


213C. Linguistic Processing. (4) Requisite: courses C185B and/or 200B. Recommended: courses 132 or equivalent course in computational linguistics. Exploration of computational models of language processing (comprehension and/or production), with emphasis on syntactic processing, ambiguity resolution, effects of memory load, and relationships between grammar and processor.

214. Survey of Current Syntactic Theories. (4) Requisite: course 206. Survey of several current syntactic theories, compared with one another and with theories presented in course of view of theories’ relative descriptive and explanatory power.

215. Syntactic Typology. (4) Requisite: course 200B. Current results in word-order universals; genetic classification of languages; cross-linguistic properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, agreement systems, deixis systems, and other syntactic types of construction.

216. Syntactic Theory III. (4) Requisite: course 206. Selected topics on syntactic theories of anaphora and quantification from the following areas: typology of binding categories (pronouns, anaphors, etc.); theory of locality conditions in binding theory; parametric variation in binding; quantifier movement; existential quantification and unselective binding; strong and weak crossover; superiority; scope interactions; complex quantifier structures.

217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 200A. Survey of experimental work that bears on claims about speakers’ knowledge of phonology, including theories of lexicon, relation between perception and production, and universal markedness relations. Letter grading.


220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200B. Analysis and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Aboriginal North America, Aboriginal South America, Far East, etc.). May be repeated for credit with consent of instructor. S/U or letter grading.

221. Computational Semantics. (4) Formerly numbered C209B. Lecture, four hours; laboratory, one hour. Preparation: prior instruction in syntactic theory, variable binding and pronominalization, formal semantic interpretation, syntax and LF; tense, ellipsis, and focus. Letter grading.

222. History of Linguistics. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200B. Preparation: prior instruction in syntactic theory, variable binding and pronominalization, formal semantic interpretation, syntax and LF; tense, ellipsis, and focus. Letter grading.

223. Language Processing. (4) (Formerly numbered C232.) Lecture, four hours; laboratory, one hour. Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200B. Preparation: prior instruction in syntactic theory, variable binding and pronominalization, formal semantic interpretation, syntax and LF; tense, ellipsis, and focus. Letter grading.

C235. 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 to neuroimaging. 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 neurolinguistic literature and produce research papers of greater depth. S/U or letter grading.

236. Computational Phonology. (4) Lecture, two hours; computer implementation of linguistic models, psycholinguistics, etc. May be repeated for credit. S/U grading.

C251B. Topics in Phonetics and Phonology. (2) Lecture, four hours. Introductory models of phonology and phonological acquisition. Topics include finite state machines, probabilistic automata, over-constrained models, dynamic programming methods. Letter grading.

C256A. Topics in Phonetics and Phonology II: Proseminar. (2) Seminar, two hours. Discussion of current research topics and techniques. Requisite: course 256A. Specialized topics in phonetics and phonology. May be repeated for credit. S/U grading.

C257B. Topics in Syntax and Semantics II: Proseminar. (2) Seminar, two hours. Discussion of current research topics and techniques. Requisite: course 257A. Specialized topics in syntax and semantics. May be repeated for credit. S/U grading.

C258A. Topics in Language Variation: Proseminar. (2) Seminar, two hours. Discussion of current research topics and techniques. Requisite: course 258A. Specialized topics in language variation. May be repeated for credit. S/U grading.

C263A-263B-263C. Seminars: Language Variation. (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. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

C264A-264B-264C. Seminars: Special Topics in Linguistic Theory. (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. or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminar. (1 or 4 each) Seminar, two hours; fieldwork, four hours. Presentation of research on American Indian languages. 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. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.


411A-411B. Research Orientation. (2-2) Designed for graduate students. Students work with departmental faculty to acquaint new graduate students with research directions and resources of department and elsewhere on campus. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Described for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

444. M.A. Thesis Preparation Seminar. (4) Student presentations, two hours. Student presentations of proposed topics for M.A. theses, with discussion and criticism by other students and faculty. May not be applied toward M.A. or Ph.D. degree requirements. S/U grading.

495. College Teaching of Linguistics. (2) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Seminars, workshops, and apprentice teaching. Selected topics, including curriculum development, various teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: 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 under cooperative arrangements with USC. S/U grading.
Related Courses

Anthropology
143. Field Methods in Linguistic Anthropology
Applied Linguistics and Teaching English as a Second Language
220. Second Language Acquisition Research
223. Topics in Psycholinguistics
241. Analysis and Use of Language Assessment Data
Armenian (Near Eastern Languages)
210. History of the Armenian Language
Classics
180. Introduction to Classical Linguistics
230A-230B. Language in Ancient Asia Minor
English
121. History of the English Language
220. Introduction to Structure of Present-Day English
210. History of the English Language
218. Celtic Linguistics
240. Studies in History of the English Language
241. Studies in Structure of the English Language
German (Germanic Languages)
150. Language and Linguistics
217. History of the German Language
230. Survey of Theory in Historical Linguistics
238. Linguistic Theory and Grammatical Description
251. Seminar: Germanic Linguistics
252. Seminar: Historical and Comparative Germanic Linguistics
Greek (Classics)
240A-240B. History of the Greek Language
242. Greek Dialects and Historical Grammar
243. Mycenaean Greek
Hebrew (Near Eastern Languages)
180A-180B. Survey of Hebrew Grammar
210. History of Hebrew Language
Indo-European Studies
205. Indo-European Linguistics: Advanced Course I
210. Indo-European Linguistics: Advanced Course II
280A-280B. Seminars: Indo-European Linguistics
Italian
223. Structures of Modern Italian
224. Italo-Romance Dialectology
225. Cultural History of Italian Language
Japanese (Asian Languages)
CM122: Structure of Japanese I

225A-225B. Seminars: Linguistic Analysis of Japanese Narratives
Latin (Classics)
232. Vulgar Latin
240. History of the Latin Language
242. Italic Dialects and Latin Historical Grammar
Philosophy
127A, 127B. Philosophy of Language
172. Philosophy of Language and Communication
267. Seminar: Philosophy of Language
Portuguese (Spanish and Portuguese)
100A. Phonology and Morphology
100B. Syntax
M118A. History of Portuguese and Spanish: Phonology
M118B. History of Portuguese and Spanish: Morphology and Syntax
M205A-M205B. Development of Portuguese and Spanish Languages
M251A-M251B. Studies in Galician-Portuguese and Old Spanish
Psychiatry
257A-257B-257C. Communication Disorders Associated with Developmental Disabilities and Psychiatric Disorders
Psychology
123. Psycholinguistics
260A-260B-260C. Proseminars: Cognitive Psychology
Russian (Slavic Languages)
123. Historical Commentary on Modern Russian
204. Introduction to History of the Russian Language
241. Topics in Russian Phonology
242. Topics in Russian Morphology
243. Topics in Historical Russian Grammar
263. Russian Dialectology
264. History of the Russian Literary Language
265. Topics in Russian Syntax
Semitics (Near Eastern Languages)
280A-280B-280C. Seminars: Comparative Semitics
Slavic (Slavic Languages)
202. Introduction to Comparative Slavic Linguistics
242. Comparative Slavic Linguistics
251. Introduction to Baltic Linguistics
281. Seminar: Slavic Linguistics
282. Seminar: Structural Analysis
Sociology
CM124A. Conversational Structures I
266. Selected Problems in Analysis of Conversation
Spanish (Spanish and Portuguese)
100A. Introduction to Study of Spanish Grammar: Phonology and Morphology
100B. Introduction to Study of Spanish Grammar: Syntax
115. Applied Linguistics
M118A. History of Portuguese and Spanish: Phonology
M118B. History of Portuguese and Spanish: Morphology and Syntax
202A. Phonology
202B. Morphology
204A-204B. Generative Syntax and Semantics
M205A-M205B. Development of Portuguese and Spanish Languages
209. Dialectology
M251A-M251B. Studies in Galician-Portuguese and Old Spanish
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

Turkic Languages (Near Eastern Languages)
230A-230B-230C. Historical and Comparative Survey of Turkic Languages

Management

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Lee G. Cooper, Ph.D.
Samuel A. Culbert, Ph.D.
Michael R. Darby, Ph.D. (Warren C. Cordon Professor of Money and Financial Markets)
Sebastian Edwards, Ph.D. (Henry Ford II Professor of International Management)
Christopher L. Erickson, Ph.D.
Donald Erlienkokter, Ph.D.
Eric G. Flamholtz, Ph.D.
Arthur M. Geoffrion, Ph.D. (James A. Collins Professor of Management)
Martin Greenberger, Ph.D. (IBM Professor of Computers and Information Systems)
Mark S. Grinblatt, Ph.D.
Dominique M. Hanssens, Ph.D. (Bud Knapp Professor)
John S. Hughes, Ph.D. (Ernst and Young Professor of Accounting)
Sanford M. Jacoby, Ph.D. (Howard Noble Professor of Management)
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Barbara S. Lawrence, Ph.D.
Edward E. Learner, Ph.D. (Chauncey J. Medberry Professor of Management)
David Lewin, Ph.D. (Neil Jacoby Professor of Management)
Marvin B. Lieberman, Ph.D.
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Steven A. Lippman, Ph.D. (George Robbins Professor of Management)
Francis A. Longstaff, Ph.D. (Allstate Professor of Insurance and Finance)
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Bill McKelvey, Ph.D.
Bruce L. Miller, Ph.D.
Daniel J.B. Mitchell, Ph.D. (Ho-Su Wu Professor of Management)
Donald G. Morrison, Ph.D. (William E. Leonhard Professor of Management)
William G. Ouchi, Ph.D. (Sanford and Betty Sigoloff Professor of Corporate Renewal)
Anthony P. Raia, Ph.D.
Richard W. Roll, Ph.D. (Japan Alumni Professor of International Finance)
Richard P. Rumelt, D.B.A. (Harry and Elisa Kunin Professor of Business and Society)
Rakesh K. Sarin, Ph.D. (Paine Professor of Management)
Hans Schollhammer, D.B.A.
Eduardo S. Schwartz, Ph.D. (California Professor of Real Estate and Land Economics)
Carol A. Scott, Ph.D.

596A. 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.

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) Preparations: 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.

http://www.anderson.ucla.edu
Avanidhar Subrahmanyan, Ph.D. (Goldyne and Irwin Hearsh Professor of Money and Banking)
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Professors Emeriti
Robert B. Andrews, Ph.D.
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John F. Shelton, Ph.D.
R. Clay Sprowls, Ph.D.
George A. Steiner, Ph.D., Litt.D.
James Q. Wilson, Ph.D. (James A. Collins Professor Emeritus of Management)

Associate Professors
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Pedro Santa-Clara, Ph.D.
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Shi Zhang, Ph.D.

Assistant Professors
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Pradeep Bhadraj, Ph.D.
Anand V. Bodapati, Ph.D.
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Scott M. Carr, Ph.D.
Ely Dahan, Ph.D.
John de Figueiredo, Ph.D.
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Jing Liu, Ph.D.
Jun Liu, Ph.D.
Sanjay Sood, Ph.D.
Rossen I. Valkanov, Ph.D.
Maia J. Young, Ph.D.
Li Zhang, Ph.D.

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William H. Boesamle, M.B.A.
Ariella D. Herman, Ph.D.
David S. Ravetch, M.A.

Robert S. Spich, Ph.D.

Lecturers
Stephen D. Cauley, Ph.D.
Gonzalo Freixes, J.D.
Julie Ann Gardner-Treloar, M.B.A.
Jane Guerin, J.D.
Gordon L. Klein, J.D.
Danny S. Litt, M.B.A.
Richard B. Stern, Ph.D.
Eric H. Sussman, M.B.A.
Sara D. Tucker, M.B.A.

Adjunct Professors
William M. Cockrum, M.B.A.
Janis S. Forman, Ph.D.
George T. Gei, Ph.D.
Victor C. Tabush, Ph.D.
S. William Yost, D.B.A.

Adjunct Associate Professor
Robert F. Foster, M.B.A.

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 both an academic (M.S.) and professional (M.B.A.) master’s, as well as a 21-month 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. A Ph.D. in Management is also offered, 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. The school limits the number of courses taken by undergraduate students to 11.

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 prerequisite courses, and the grade in Management 100. Decisions on admission to the minor are made by the Anderson School Accounting Area. Applications are accepted only in Fall Quarter. Nontransfer students must apply in the Fall Quarter subsequent to completing 90 units (Fall Quarter of their junior year). Transfer students must apply in Fall Quarter of their second academic year 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 a grade of B or better in Management 100. 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/x315.xml.

Required Preadmission Courses (31 units minimum):
- Economics 1, 2, Management 100
- Mathematics 3A, 3B

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Management and the Master of Business Administration (M.B.A.) degree. The school also offers the Executive M.B.A. Program (EMBA) and the M.B.A. for the Fully Employed (FEMBA).

Management

Lower Division Course

88. Lower Division Seminar: Special Topics in Management. (4) Seminar; three hours; outside study, nine hours. Require: satisfaction of Entry-Level Writing requirement. Variable topics seminar which examines specific issues or problems and ways that professionals in management approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

Upper Division Courses

100. Introduction to Financial Accounting. (5) Lecture, four hours; discussion, one hour. Introduction to principal financial statements — balance sheet, income statement, and statement of cash flows. Designed to develop ability to prepare, interpret, and use financial statements, as well as to understand underlying system that produces them. Business operations from management perspective. P/NP or letter grading.


118A. Foundations of New (Bottom-Up) Social Science Application of Complexity Science and Agent-Based Models. (4) Lecture, four hours. Limited to juniors/seniors. Introduction to (1) complexity science as applied to social behavior, (2) agent-based computational modeling, and (3) philosophies of scientific realism, model-centered science, and other recent trends in philosophy of science as they pertain to complexity science and computational modeling. Use of complexity science to bridge old and new conceptions of social science. Newtonian science, neoclassical economics, and old-style approaches to social science all build on assumptions that all basic agents comprising phenomena (atomic particles, animals, molecules, organisms, people, groups, firms) are homogeneous and go forward in time under equilibrium conditions interspersed with occasional disequilibrium periods. Letter grading.


122. Management Accounting. (4) Lecture, three hours. Require: course 100 (or former course 1B), one statistics course, nature, objectives, and procedures of management accounting, including cost accounting; cost accounting; accounting for manufacturing overhead; cost budgeting; cost reports; joint-product cost; 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. Require: 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) Require: 120B. Study of course 120B. Designed for seniors. Use of "Strategic Management," 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 margin analysis, issuing debt versus equity, and other topics that allow students to apply accounting principles learned in previous courses. P/NP or letter grading.

126. Financial Statement Analysis. (4) Lecture, four hours. Require: courses 120B, 130A. Not open to students with credit for course 180 or former course 197 when offered as this topic. Comprehension of the study of concepts used to interpret and analyze financial statements, and principles of interpretation of data, including asset, liability, and equity analysis; revenue and expense evaluation; financial ratios, credit analysis, and distress prediction; valuation theory and implementation; business strategy analysis; mergers and acquisitions. P/NP or letter grading.

127A. Tax Principles and Policy. (4) Lecture, three hours. Require: course 100 or former course 1B. Study of fundamental income tax problems encountered by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Require: 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. Recommend requisite: course 127A. Study of two principle areas of international taxation from U.S. regulatory perspective: taxation of American citizens and corporations, including multinational transactions (international transactions) and taxation of foreign nations and companies who invest or conduct business in the U.S. ( inbound transactions). P/NP or letter grading.


130A. Basic Managerial Finance. (4) Lecture, three hours. Require: course 100 (or former course 1B), one statistics course. Study of financial decision making by business firms, including assessment of financial and economic information, as well as decision making in public and private financial markets. P/NP or letter grading.


133. Investment Principles and Policies. (4) Lecture, three hours. Require: course 130A. Principles underlying investment analysis and policy; salient characteristics of governmental and corporate securities; principles of investment combinations and investing institutions; relation of investment policy to money markets and business fluctuations; security price- makings forces; construction of personal investment programs.


150. Elements of Industrial Relations. (4) Principles and methods of effectively utilizing human resources in organizations. Relationship between social, economic, and other environmental factors and current problems in industrial relations.

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 us es. Emphasis on decisions related to app raising, building, financing, managing, marketing, and using urban property.

180. Special Topics in Management. (4) Formerly numbered 188.) Lecture, three 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 processes, including group leadership. Lectures and "sensitivity training" laboratory.

195. Community or Corporate Internship in Management. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected research topic under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.
209. Selected Topics in Business Economics. (4) Special topics in business economics. Current developments in theory or practice in business economics. May be repeated for credit.

210A. Mathematical Programming. (4) Discussion, three hours. Preparation: linear algebra. Comprehensiv e development of theory and computational methods of linear programming, with applications to a variety of areas. 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 100B. 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 programming. Survey course to 1 (1) lay foundations for more advanced study of graphs, network flow models, and combinatorial optimization, and then 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. Preparation: course 210A, Mathematics 23A, and familiarity with applications of optimization for situations where models must be nonlinear, with special emphasis on case of "convexity." 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. Preparation: 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, multivariable, and stochastic aspects in pursuit of computational tractability. S/U or letter grading.

212A. Decision Sciences Models I. (4) Lecture, four hours. Requisites: course 407, Mathematics 31B. Broad survey of modern models of decision science, including solution methods and applications management. Solution methods include linear programming, network optimization, integer programming, nonlinear programming. Application areas include corporate planning, finance, marketing, production, and operations management, distribution, and project management. S/U or letter grading.

212B. Decision Sciences Models II. (4) Lecture, four hours. Preparation: courses 402, 407. Broad survey of nonlinear, time-staged, and probabilistic models for managerial decision making. Application areas include finance, marketing, facilities design, production, and energy systems. S/U or letter grading.

213A. Intermediate Probability and Statistics. (4) Discussion, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to probability theory and hypothesis testing as applied to management. SAS programs used in this course and its sequel. S/U or letter grading.

213B. Statistical Methods in Management. (4) Discussion, three hours. Preparation: course 402. Introduction to parameter and interval estimation, simple and multiple linear regression and correlation, fixed, random, and mixed models analysis of variance models and nonparametric statistics, all as they apply to management studies. S/U or letter grading.

213C. Introduction to Multivariate Analysis. (4) Discussion, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to use of multivariate models in management research to organize and represent information; interpretation of coefficients from multivariate exploratory models (e.g., principal axes and factor analysis models); survey of multivariate statistical procedures (e.g., multiple discriminate analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

215. Negotiations Analysis. (4) Discussion, three hours. This course is intended to help students find solutions to conflicts. Use of economic and game-theoretic concepts in an environment to gain insight and develop framework for finding the broad negotiation principles applicable. S/U or letter grading.


216A. Simulation of Modeling and Analysis. (4) Discussion, three hours. Preparation: probability theory, mathematical statistics, and modeling. Development of computer simulation models for management decision making under uncertainty or complex dynamics, with emphasis on simulation methodology such as design, validation, analysis, and interpretation of results. Application areas include finance, marketing, and production. S/U or letter grading.

217A. Decision Analysis. (4) Lecture, three hours. Preparation: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what other individuals will do. Framework provided for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treasure hunting, and bidding. S/U or letter grading.

217B. Game Theory. (4) Discussion, three hours. Preparation: courses 402, 405. Theory of games plays increasingly important role as source of clear language and concepts for analysis of policy problems in every area. Introduction to framework with emphasis on interpretation and application of ideas to practical problems in management and public policy, and in practical questions of ethics, fairness, and bargaining. S/U or letter grading.

218A. Selected Topics in Decisions, Operations, and Technology Management. (1 to 4) Discussion, three hours. Newly developing topics of interest to Ph.D. students. Topics have included reliability and optimal maintenance theory, large-scale distribution/inventory systems, and Markovian decision processes under uncertainty. May be repeated for credit. S/U or letter grading.


230. Theory of Finance. (4) Lecture, three hours. Requisite: course 404. Primary focus on valuation of corporate liabilities and other securities under uncertainty. Capital asset pricing model presented with emphasis on empirical aspects of asset pricing such as arbitrage pricing theory and option pricing models, using empirical evidence. Secondary focus on analysis of problems in corporate finance such as optimal financing of the corporation and the market for corporate control. S/U or letter grading.

231A. Topics in Corporate Finance. (4) Lecture, three hours. Requisite: courses 230 or (430), 408. Identifying and solving financial problems through use of case studies, applied work with financial theories of asset pricing such as arbitrage pricing theory and option pricing models, using empirical evidence. Secondary focus on analysis of problems in corporate finance such as optimal financing of the corporation and the market for corporate control. S/U or letter grading.

231B. Nonprofit Sector Financial Policy. (4) Lecture, three hours. Requisite: courses 408, 430. Identifying and solving financial problems for all types of nonprofit organizations, with attention to funds accounting, budgeting and control, investment decision making when market valuation cannot be used as criterion, and sources of funds for nonprofit organizations. Use of cases. S/U or letter grading.

231D. Takeovers, Restructuring, and Corporate Governance. (4) Lecture, three hours. Requisites: courses 230 or (430), 408. Process by which corpo- rate behavior takes place: role of market for corporate control in leading to economic restructuring and shifts in resource allocation by corporations. Empirical evidence on economic and capital market re- actions to control transactions and defensive mea- sures by management. Focus on interaction of strate- gic planning, firm value maximization, and investment decisions in life cycle of growth of firm. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 or (430), 403, 408. Designed for second-year graduate students. Emphasis on financial con- trol, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consider- ation and selection of financing vehicles that may be appropriate to securing organizations’ money require- ments. S/U or letter grading.

232A. Security Analysis and Investment Management. (4) Lecture, three hours. Requisites: courses 230 or (430), 408. Topics include security valuation, asset allocation, portfolio management, performance evaluation, and basics of fixed income portfolio management strategies. S/U or letter grading.


234A. International Financial Markets. (4) Lecture, three hours. Requisites: courses 230 or (430), 408. Conceptual understanding of foreign exchange mar- ket, Eurocurrency market, international bond market, and equity markets in various countries. Emphasis on understanding economic principles, although where rele- vant, institutional features helpful in understanding structure and operations of markets to be dealt with in detail. S/U or letter grading.

234B. Financial Management of Multinational Cor- porations. (4) Lecture, three hours. Requisites: courses 230 or (430), 408. Financial management of multinational firms from perspective of financial vice- president or other financial officer within company. Topics include measuring foreign exchange risk, managing risk that with both contractual and operat- ing strategies, deciding on capital budgeting and cost of capital in international perspec- tive, political risk, working capital management, and performance evaluation and control. S/U or letter grading.

235. Venture Capital and Private Equity. (4) Lecture, three hours. Requisites: courses 408, 430. Use of cases to study entrepreneurial finance and venture capital strategies. Analysis of issues faced by entrepreneurs who are setting up new firms, as well as decisions of private equity partnership managers and investors. How transactions are structured and why investors and entrepreneurs choose certain contractual ar- rangements. Development of understanding for insti- tutional context of private equity finance. Time also devoted to leveraged buyouts, S/U or letter grading.

238. Special Topics in Finance. (4) Lecture, three hours. Requisites: courses 230 or (430), 408. Select- ed topics in finance theory, empirical studies, and fi- nancial policy. May be repeated for credit with instruc- tor 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. stu- dents, but well-prepared master’s students may find course useful in their career preparation. Foundations of theory of firm capitalization and investment deci- sions, with special attention to questions of exchange and allocation 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-pre- pared 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.


239X-239Y-239Z. Finance Workshops. (1-1-2) Dis- cussion, three hours. Requisite: course 404. Design, management, improvement, and measurement of service and loyalty. Analyze how industries and other organizations, with emphasis on understanding service and loyalty opportunities, their operating prob- lems, and successful resolution. Extensive employ- ment of cases. S/U or letter grading.

240A. Managing Service Operations. (4) Discus- sion, three hours. Requisite: course 410. Design, management, improvement, and measurement of service and loyalty. Analyze how industries and other organizations, with emphasis on understanding service and loyalty opportunities, their operating prob- lems, and successful resolution. Extensive employ- ment of cases. S/U or letter grading.


240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requisite: course 410. Designed for second-year graduate students. Exploration of operating issues involved in managing entre- preneurial enterprises. Intensive course on funda- mental methodologies, principles, and concepts provided in requisite functional and strategic core courses. Use of extensive readings and case studies to develop skills and philosophical basis for applying managerial con- cepts to entrepreneurial operations. S/U or letter grading.
240F. Supply Chain Management. (4) Lecture, three hours. Requisite: course 410. Business environment today is characterized by globalized operations, intense competition, rapid technological change, and short product life cycles. Consequently, firms can no longer afford to operate in isolation. In many industries competition has moved from firm level to supply chain level. Provides understanding of strategic, tactical, and operational issues in supply chain management, with generous attention to emerging digital economy and strategy.

240G. Global Operations Strategy. (4) Lecture, three hours. Requisite: course 410. Study of challenges of operating globally in range of industries, including software, consulting, automotive, and textile. Several opportunities for field trips to different parts of the world, with special emphasis on the management of high-technology firms.

241A. Technology Management. (4) Lecture, three hours. Requisites: courses 410, 411A, 411B. Management of high-technology firm, including acquisition, creation, and utilization of technology and knowledge assets. Research and product development, product and process technologies, technology reengineering, high-technology, competition, and technology strategies. Case examples from sectors such as computing, telecommunications, e-business, medical devices, nanotechnology, advanced transportation systems, and手游.


242B. Models for Operations Systems Design. (4) Discussion, three hours. Requisite: course 210C. Designed for Ph.D. students. Survey of new models, with some knowledge of mathematical programming and stochastic processes. Foundations of operations planning, scheduling, and control, with emphasis on formal models and their applications. Aggregate planning, work force scheduling, inventory management, and detailed operations scheduling and control. S/U or letter grading.

242C. Inventory Theory. (4) Discussion, three hours. Requisite: course 210B. General discussion of inventory models, with emphasis on characterizing form of optimal policies as a function of computational methods, Deterministic, stochastic, discrete-time, and continuous-time models. S/U or letter grading.


244X-244Y-244Z. Research in Decisions, Operations, and Technology Management. (1-1-2) Lecture, three hours. Designed for first- and second-year Ph.D. students in decisions, operations, and technology management. Literature research in operations and technology management. Seminar reports dealing with special topics. May be repeated for credit with topic change. S/U or letter grading.

245. Special Topics in Decisions, Operations, and Technology Management. (4) Lecture, three hours. Designed for M.B.A. and Ph.D. students. Studies of advanced subjects of current interest in decisions, operations, and technology management. Emphasis on recent developments and application of specialized knowledge. Topics vary each term and have included strategic or information intensive industries, empire risk, research in operations management, analytical methods of operation research, introduction to management in informal organizations, and models for medical management. May be repeated for credit with topic change. S/U or letter grading.

246C. Management in Public and Private Nonprofit Sectors. (4) Designed for graduate students. Examination of roles and management systems of the three sectors of U.S. society: unique aspects and managerial features of public and private nonprofit organizations and of their political, social, and technical environments. Financial, marketing, and operational considerations and evaluation, control, and ethical issues of service delivery systems.

247A. Environment of the Art World. (4) Consideration and analysis of political, social, economic, and aesthetic factors that impact art, as they affect existence and development of arts institutions in the U.S. Examination of present policies and trends and potential future developments.

247B. Role of Technology in Artistic Decision Making. (4) Descriptive study of criteria for decision making in artistic institutions, including role of the institution in society, economic environment of the arts, and artistic value systems of arts organizations.

248A. Strategic Management in the Entertainment Industry. (4) Discussion, three hours. Requisites: courses 403, 405, 408, 420. Examination of financial and strategic aspects of the industry and management in the entertainment industry. Cases and topics include organizational behavior and decision making in creative companies; trends in industry structure and competitive economics; accounting issues; institutional and private investment in motion pictures; theatrical distribution, international and ancillary markets (pay TV, videocassettes, syndication).

249A. Special Topics in Public and Private Nonprofit Management. (4) Studies of advanced subjects of current interest in public/not-for-profit management. Emphasis on recent developments and application of specialized knowledge to public/not-for-profit problems. Topics vary each term. May be repeated for credit with topic change.

249B. Special Topics in Arts Management. (4) Examination and analysis of current issues in management of artistic organizations. Relevant combinations of lectures, discussions, and projects. Credit/no credit option. S/U or letter grading.

250A. Labor Relations: Process and Law. (4) (Same as Public Policy CM231.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current theory and research in psychology, anthropology, sociology, organization behavior, and economics, including topics such as careers, participation, negotiation, and technology/work systems. S/U or letter grading.


250C. Behavioral Foundations of Human Resource Management. (4) Requisite: course 250B. Topics include recruitment; human resource accounting; behavioral foundations of participating management; motivation, productivity, and satisfaction; designing reward systems; and evaluation of organization effectiveness. Emphasis on understanding, predicting, and influencing human behavior in organizations.

251. Managing Human Resources. (4) Management of people in organizations, designed for managers as well as personnel specialists. Organized at three levels for students of different academic preparation: (1) day-to-day utilization of people as organizational resources to achieve optimal productivity, satisfaction, retention, and development; (2) personnel management function or system that performs specialized human resource functions; and (3) issues facing top management which involve management of human resources, including strategic planning for human resources, union/management relations, and design of corporate culture.

252. Systems of Employee/Management Participation. (4) Designed to provide understanding of systems of employee participation around the world (apart from traditional collective bargaining systems). Specific concepts such as worker participation in decision making, industrial democracy, joint consultation, and PR systems will be discussed.

253. International Political Economy. (4) Lecture, three hours. Examination of political, legal, and social institutions to demonstrate varieties of modern capitalism and business/government relations around the world. Analysis of major domestic policy options that nations are pursuing in response to economic global and spread to international organizations along with business/government relations.

255. Comparative Industrial Relations. (4) (Same as Public Policy CM231.) Lecture, three hours; outside study, nine hours. Requisite: course 409 or elementary knowledge of labor economics. 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 power relationships; substance and manner of determination of “web of rules” governing rights and obligations of the parties; and resolution of conflicts. S/U or letter grading.


258. Selected Topics in Industrial Relations. (1 to 4) Designed for Ph.D. students. Examination in depth of problems and issues of current concern in industrial relations. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

259A. Individuals and Groups in Human Systems. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature dealing with interpersonal dynamics, groups, and aspects of culture in work organizations, with emphasis on theory and research. Current research in psychology, anthropology, and small group studies. Variety of methods represented, including clinical and cross-cultural approaches. S/U or letter grading.

259B. Advanced Studies in Human Resource Management. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current theory and research in psychology, anthropology, organization behavior, and economics, including topics such as careers, participation, negotiation, and technology/work systems. S/U or letter grading.
M259C. Labor Markets and Public Policy. (4) (Same as Public Policy CM230.) Lecture, three hours; outside study, one hour; term paper required. Offered to graduate students. Survey of major topics in economic analysis of labor markets and public policies toward labor market. Topics include labor force trends and measurement, compensation determination, productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female labor-market experience. S/U or letter grading.


261B. Global Marketing Management. (4) Lecture, three hours. Requisites: courses 411A, 411B. Analysis of opportunities, distinctive characteristics, and emerging trends in foreign markets, including exploration of alternative methods and strategies for entering foreign markets; organizational planning and control; impact of social, cultural, economic, and political differences; and problems of adapting American marketing concepts and methods. Letter grading.


263A. Consumer Behavior. (4) Lecture, three hours. Requisites: courses 411A, 411B. Study of nature and determinants of consumer behavior. Emphasis on influence of sociopsychological factors such as personality, small groups, demographic variables, social class, and culture on formation of consumers' attitudes, comprehension, and purchasing behavior. S/U or letter class.

264A. Marketing Research: Design and Evaluation. (4) Lecture, three hours. Requisites: courses 411A, 411B. Study of research and evaluation methods. Emphasis on influence of sociopsychological factors such as personality, small groups, demographic variables, social class, and culture on formation of consumers' attitudes, comprehension, and purchasing behavior. S/U or letter class.

264B. Marketing Models and Market Response Analysis. (4) Lecture, three hours. Requisites: courses 411A, 411B. Designed for prospective users of research results rather than for specialists in research. Marketing research is aid to management decision making. Development of problem-solving skills, providing knowledge of concepts and methods of marketing research, with increased sensitivity to limitations of marketing data. Letter grading.

265A. Brand Management. (4) Lecture, three hours. Requisites: courses 411A, 411B. 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.

266A. Product Management. (4) Lecture, three hours. Requisites: courses 411A, 411B. Investigation of process of developing new products and management of mature brands in existing markets. Topics include new product development, focus on concept screening, designing new products, and test marketing. Tactical management of marketing mix with currently available tools emphasized in managing mature brands. Letter grading.


267. One-to-One Marketing. (4) Lecture, three hours. Requisites: courses 402, 411A, 411B. Use of notion of “customer life cycle” as organizing principle and application to one-to-one marketing context. Frameworks and analytical tools for interacting with customers and learning about their preferences as they evolve through four stages of customer life cycle: (1) customer acquisition, (2) initial post-promotion purchasing, (3) mid-maturity purchase and transaction behavior, and (4) customer attrition or switchover to other product or service. Letter grading.

268. Selected Topics in Marketing. (4) Lecture, three hours. Requisites: courses 411A, 411B. Study of selected areas of marketing knowledge and thought. Specific subjects vary each term depending on particular interests of instructor and students. Individual projects and reports. May be repeated for credit. S/U or letter grading.

269A. Theory in Marketing. (4) Serves as mechanism to introduce students to development of new 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.

269C. Quantitative Research in Marketing. (4) Discussion, three hours. Designed for Ph.D. students in management and related fields. Students are assumed to have a 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.

269D. Behavioral Research in Marketing. (4) Designed for Ph.D. students who are conducting research in consumer behavior or related areas. Empirical research in consumer behavior surveyed and critically evaluated from theoretical as well as practical perspectives.

269E. Special Research Topics in Marketing. (4) Designed for Ph.D. students. Advanced selected topics in marketing, with emphasis on thorough examination of one or two topics in current research and theory. May be repeated for credit.

269F. Workshop: Information Systems. (1-2) Lecture, one hour; term paper required. Term paper required. Topics vary from term to term. May be repeated for credit. S/U or letter grading.


270C. Application Frontiers in Information Systems. (4) Lecture, three hours. Requisite: course 404. Exploration of new state-of-the-art applications in information systems, such as in electronic commerce. Assessment of industrial opportunities and impacts. Topics vary from term to term. May be repeated for credit. S/U or letter grading.


271C. Emergent Technologies in Information Systems. (4) Discussion, three hours. Requisite: course 404. Special topics in new technologies such as multimedia, digital imaging, object-oriented software, heterogeneous databases, and parallel processing. Assessment of industrial opportunities and impacts. Topics vary from term to term. May be repeated for credit. S/U or letter grading.

272A. Information Systems Development. (4) Discussion, three hours. Methods and tools for information systems design, development, implementation, and maintenance. User requirements analysis, design and specification of application software and databases. Classic and alternative approaches, such as rapid prototyping. System integration. Automated support. S/U or letter grading.


274A. Special Topics in Information Systems. (4) Discussion, three hours. Designed primarily for Ph.D. students. Examination in depth of problems or issues of emerging or current significance. Topics vary from term to term. May be repeated for credit. S/U or letter grading.


274X-274Y-274Z. Current Research in Information Systems. (1-1-2) Discussion, two hours. Designed for Ph.D. students. Year-long sequence associated with Information Systems Colloquium Series. Regularly scheduled presentations of current research and state-of-the-art developments in information systems field. Study and discussion of research presented. May be repeated for credit. S/U or letter grading.
278A. Selected Topics in Behavioral Science. (4) Discussion, three hours. Designed for graduate students. Theories of human behavior fundamental to study of individual, group, organizational, and cultural behavior. Exploration in depth of selected theoretical positions, extending and consolidating behavioral science knowledge and application. May be repeated for credit. S/U or letter grading.

288B. Selected Topics in Human Systems Studies and Organizational Behavior. (4) Discussion, three hours. Designed for graduate students. Current topics in analysis and design of socio-technical systems engaged with various technologies and environments, emphasizing design approaches emanating primarily from Europe, the Orient, and the U.S. In-depth comparisons of selected job and organizational design cases. May be repeated for credit. S/U or letter grading.

288C. Selected Topics in Human Systems Studies and Organizational Behavior. (4) Discussion, three hours. Designed for graduate students. Psychological and social psychological aspects of human behavior and performance in organizations. Theoretical models, empirical findings, and applications of such topics as attitudes and values, coercive and perceptual processes, behavioral conflict, and individual change processes. May be repeated for credit. S/U or letter grading.


288E. Proseminar: Behavioral and Organizational Sciences Colloquium. (4) Discussion, three hours. Designed for graduate students. Series of presentations by scholars and practitioners in behavioral and organizational sciences, with focus on integrative themes or major issues in the field, designed to provide dialogue among students and faculty on significant topics, controversies, and leading-edge ideas. May be offered in one or successive terms and may be repeated for credit. S/U or letter 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; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. 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.

292C. Comprehensive Planning in Public Sector. (4) Evolving modes of planning under complexity, with particular emphasis on public sector. Development of policy through standard setting, bargaining, and regulating government relations; judgments; social and technical dimensions of alternatives; and social and technological forecasting.
293A. Political Environment of American Business. (4) Lecture, three hours. Evaluation of certain criticisms made by business of the American political system. Designed to provide clearer understanding of principal features of American politics, especially as they influence business enterprise.

293C. Ethical Considerations in Business. (4) Lecture, discussion 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.


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-scale enterprises. Emphasis primarily on managerial effects aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context.


296A. International Business Management. (4) Discussion, three hours. Identification, analysis, and resolution of managerial issues of policy and action within context of a multinational corporation, with emphasis on problems of adaptation to different sociological, cultural, legal, political, and economic environmental characteristics on planning, structuring of organizational relationships, and coordination and control in multinational firms. S/U or letter grading.

296B. International Comparative Management Research. (4) Designed for Ph.D. students. In-depth study of theory and research pertaining to international business and comparative management. Emphasis on recent research developments and methodological issues. Imparts knowledge on design and conduct of international comparative management research.

297A. Comparative and International Management. (4) Comparative study of practice of management in selected foreign countries, as affected by their social environments and development of management theory. S/U or letter grading.


297C. International Business Law. (4) Requisites: courses 205A, 296A. Legal environments in which international business operates; overseas business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration of international business disputes; expropriation of foreign investments; international business and government relations.

297D. International Business Negotiations. (4) Requisite: course 296A. Exploration of international business negotiations of multinational enterprises with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/disolution of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisite: course 205A or 405. Analysis of changing economic, political, demographic, and social 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, identification of business risks and opportunities, as well 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 in depth of problems or issues of current concern in management theory. Emphasis on recent contributions to the theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298B. Special Topics in International and Comparative Management. (4) Designed for Ph.D. students. Examination in depth of problems or issues of current concern in international and comparative management. Emphasis on recent contributions to the theory, research, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298C. Special Topics in Sociotechnical Systems. (4) Designed for Ph.D. students. Examination in depth of problems or issues of current concern in sociotechnical systems. Emphasis on recent contributions to research, theory, and methodology. Of special interest to advanced Ph.D. candidates, academic staff, or distinguished visiting faculty. May be repeated for credit.

298D. Special Topics in Management. (1 to 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 or letter 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 create, evaluate, and act on recent and emerging study of management strategy and policy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U 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 in terms in which they are submitting their research paper. 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 the University. May be repeated for credit. S/U grading.

400. Mathematics for Management. (4) Designed for graduate students. Fundamental mathematics for business, including topics from matrix algebra, probability, and calculus, with applications to model building and decision making in business firms. S/U grading.

401A-401B. Managerial Problem Solving. (3-3) Discussion, three hours. Use of international business problems and simulated 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.


404. Information Systems. (4) Lecture, three hours. Designed for graduate students. Introduction to information systems and applications for executive and general manager. Managerial and strategic uses of information systems, information technology that underlies these systems, and ways such systems are developed and managed. S/U or letter grading.


406. Global Economy. (4) Requisites: courses 402, 403, 405. Provides analytical framework required for understanding the way changing macroeconomic conditions in world economy affect economic growth, inflation, interest rates behavior, exchange rate determination, global competitiveness, unemployment, and the trade account. Provides skills to enable students to assess critically how developments in world economy affect particular industry environments.

407. Managerial Model Building. (4) Lecture, three hours. Designed for graduate students. Introduction to use of analytical methods for making strategic, tactical, and operational decisions arising from accounting, financial, marketing, and production, with focus on three key management problems: demand and supply function definition, computer model formulation, alternative evaluation. Letter grading.

408. Financial Markets. (4) Lecture, three hours. Provides foundation for all fundamental concepts in investments. Topics include discounting and present values, bond and stock valuation, risk and return, constructing optimal portfolios, asset pricing models, and introduction to options and futures markets. Letter grading.


410. Operations Technology Management. (4) Lecture, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of factors of production in manufacturing and nonmanufacturing organizations from peripherally and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.

411B. Marketing Management II. (4) Lecture, three hours. Requisite: course 411A. Examination of analytical tools to gauge market attractiveness and to allocate resources to marketing mix. Topics include market sizing based on diffusion of innovation and trial-and-repeat processes, customer preference measurement and market segmentation techniques, and optimal marketing resource allocation across products and customers. 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 managerial roles in designing organizational structures, creating/maintaining planning, control, information, incentive systems, different patterns of human interaction such structures and systems tend to produce. Letter grading.


421A. Management Communications I. (1) Lecture, 30 minutes; laboratory, one hour. Strategies and techniques for more effective individually written managerial communications such as memos, reports, proposals, presentations, etc. Emphasis on analytically based persuasive writing. S/U grading.

421B. Management Communications II. (1) Lecture, 30 minutes; laboratory, one hour. Strategies and techniques for more effectively written group writing assignments in managerial contexts where multiple audiences are important. Issues include achieving a single voice, establishing appropriate tone, incorporation of multiple points of view, etc. S/U grading.

444A-444B. Applied Management Research: Two-Quarter Plan. (4-4) Fieldwork, four hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. In Progress (444A) and S/U or letter (444B) grading.

445. Management Field Study: One-Quarter Plan. (8) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students) and be based on client need and adviser approval. Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and 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 consultation in interpersonal, group, intergroup, total organization, and interorganizational settings. S/U or letter grading.

452. Fieldwork in Technical Assistance for Minority Business Enterprise. (1 to 4) Preparation: completion of first year of master's program. Supervised field experience in business consulting and other forms of technical assistance for business firms and management in ethnic communities; seminars and other shared learning experiences in transmitting business administration technology to the urban ghetto.

453. Fieldwork in Arts Management. (4 to 12) Supervised field experience and practical work in phases of an arts organization (pictorial, performing, or community), concentrating on its managerial problems and its relationship to the community and society in general.

454. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of two terms of M.B.A. program. Supervised, nonpaid practical experience or fieldwork in an organization as an intern or fellow. Execution of predetermined assignment(s) pursuant to a defined program of study which may include formal coursework. May not be repeated for credit. S/U grading.

457. Fieldwork in Investment Management. (4) Discussion, three hours. Use of academic theories learned in class and application to a portfolio started with donated funds. Mirrors situations experienced by typical money management firms and includes investment strategy, asset allocation, security analysis and valuation, and organizational issues. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA AGSM graduate adviser and assistant dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

597. Preparation for Qualifying Examinations. (4 or 12) Preparation for master's comprehensive examination or Ph.D. qualifying examinations.


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Executive M.B.A. Program

461. Managerial Problem Solving. (2) Limited to Executive M.B.A. Program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting individual's diagnostic and decision-making skills. Use of readings, cases, decision simulations, and discussions to explore areas of charting job and career progress, working with others, and shaping the work culture.


465. Quantitative Methods for Managers. (4) Limited to Executive M.B.A. Program students. Survey of modeling approaches to managerial planning and decisions. 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.

466A-466B. Financial Policy for Managers. (4-2) Limited to Executive M.B.A. Program students. Modern financial management deals with decision making under uncertainty for corporate financial management, for portfolio investment decisions, for financial institutions, and for international financial management. Focus on learning sound theoretical tools and applying them in casework.


468. Economic Forecasting. (2) Limited to Executive M.B.A. Program students. Macroeconomic theory and its application to business forecasting. Major economic indicators and their historical description of the U.S. economy; theoretical tools that business economists use to analyze impacts of monetary and fiscal policy; macroeconomic techniques applicable to business decisions.

469. Management of Human Resources. (4) Limited to Executive M.B.A. Program students. Introduces major areas of human resource management — personnel management, labor economics, labor law, and labor relations — accomplished by examining some major concepts, theories, and research related to each of these topic areas, as well as some practical problems for managerial decision making.

470A. Introduction to Action Research and Policy Analysis. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Provides methods of organizational and strategic analysis to determine relationships of organizations with their environment. In Progress grading (credit to be given only on completion of course 470C).
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470B. Strategic Overview. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Preparation for strategic overview of selected international company entails collection and analysis 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 surveys. In Progress grading (credit to be given only on completion of course 470C).

470C. Action Research Project. (2) Lecture, two hours. Limited to Executive M.B.A. Program students. Further research and analysis of one strategic issue facing selected company and identified in strategic overview (course 470B). 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. (4-4) Lecture, three hours. Two-quarter individual or group (three to five students) project on global strategic issues designed to allow students to employ and enhance concepts learned in classroom. Letter grading.

472. Managerial Policy. (4) 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.

473A. Managerial and Organizational Processes. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Macroranalytic issues, including intergroup relations, design and functioning of organizations, and relationships of organizations to their environment. S/U or letter grading.

473B. Customer Information Strategy. (2) Lecture, four hours every other week for 13 weeks. Limited to Executive M.B.A. Program students. Development of a customer orientation as a necessity for success in the highly competitive global marketplace, including principles of customer orientation, information as a strategic asset, customer equity, market forecasting, measuring effects of marketing investments, and customer response-based strategy. S/U or letter grading.


477. The Manager and Business/Society Relationships. (4) Limited to Executive M.B.A. Program students. Examination of emerging trends and key structures 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.

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 legal and moral duties as directors, risk management, managing top management team of corporation. Letter grading.

481. Contemporary Issues in Business: Services Marketing and Customer Asset Management. (4) Lecture, three hours. Designed for prospective users of research results rather than for specialists in research. Market research is aid to management decision making. Development of problem-analysis skills, providing knowledge of concepts and methods of marketing research, with increased sensitivity to limitations of marketing data. 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 negotiation 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, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and m-business. Letter grading.

484. Asian Business Environment. (4) Lecture, three hours. Theoretical issues related to analysis of countries’ economic, political, and social conditions. Topics include political risk analysis, demographics, urbanization, application to scenario planning in Asia-Pacific region/countries. Letter grading.

485. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and complexity of issues related to creation of organizational environment that is supportive of entrepreneurial endeavors, and insight concerning effective implementation of technological and organizational innovations in corporate setting. Letter grading.

486. Strategic Leadership and Strategic Implementation. (4) Lecture, three hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performance organizations and on challenges of leading change in organizations. Enables students to develop organized point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

Scope and Objectives

At the heart of materials science is an understanding of the microstructure 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 microstructure 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 simulta-
neously fulfill dimensional, property, quality control, and economic requirements.

The department also has a program in electronic materials that provides a broad-based background in materials science, with opportunity to specialize in the study of those materials used for electronic and optoelectronic applications. The program incorporates several courses in electrical engineering in addition to those in the materials science curriculum.

The 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 Program Objectives

The Materials Engineering major at UCLA prepares undergraduate students for employment or advanced studies with industry, the national laboratories, state and federal agencies, and academia. To meet the needs of these constituencies, the objectives of the undergraduate program are to produce graduates who (1) possess a solid foundation in materials science and engineering, with emphasis on the fundamental scientific and engineering principles that govern the microstructure, properties, processing, and performance of all classes of engineering materials; (2) understand materials processes and the application of general natural science and engineering principles to the analysis and design of materials systems; (3) have strong skills in independent learning, analysis, and problem solving, with special emphasis on design of engineering materials and processes, communication, and an ability to work in teams, and (4) understand and are aware of the broad issues relevant to materials, including professional and ethical responsibilities, impact of materials engineering on society and environment, contemporary issues, and need for lifelong learning.

Undergraduate Study

Materials Engineering B.S.

The ABET-accredited 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.

The Major

Course requirements are as follows (182 or 183 minimum units required):

1. Five core courses: Chemical Engineering M105A (or Mechanical and Aerospace Engineering M105A), Civil and Environmental Engineering 108, Electrical Engineering 100, Materials Science and Engineering 14, Mechanical and Aerospace Engineering 102

2. Materials Science and Engineering 10 (2 units), 110, 110L, 120, 130, 131L, 132, 140, 141L, 143A, 150, 160, 161L; Mechanical and Aerospace Engineering 181A or 182A

3. Three elective courses from Chemical Engineering C114, Civil and Environmental Engineering 130, 135A, Electrical Engineering 2, 123A, 123B, 124, Materials Science and Engineering 111, 121, 122, 151, 161, 162, Mechanical and Aerospace Engineering 156A, 166C

4. One course from Electrical Engineering 131A or Mathematics 170A or Statistics 100A, plus 8 additional units from Chemistry and Biochemistry 30A, 30AL, Materials Science and Engineering 170, 171, or by petition, upper division courses from engineering, intermediate foreign language, mathematics, or physical or life sciences. Intermediate foreign language courses may be lower division

5. Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 15 or Computer Science 31 or Mechanical and Aerospace Engineering 20; Materials Science and Engineering 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1)

6. HSSEAS general education (GE) requirements. See http://www.seasoasa.ucla.edu/ge.html for details

Electronic Materials Option

Course requirements are as follows (195 or 196 minimum units required):


2. Materials Science and Engineering 10, 110, 110L, 120 (or Electrical Engineering 2)), 121, 122, 130, 131, 131L, 140; Electrical Engineering 121B, 122AL, 123A, 123B, and two courses from Materials Science and Engineering 132, 150, 160; Mechanical and Aerospace Engineering 181A or 182A


4. Chemistry and Biochemistry 20A, 20B, 20L; Computer Science 31; Materials Science and Engineering 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1)

5. HSSEAS general education (GE) requirements. See http://www.seasoasa.ucla.edu/ge.html for details

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Materials Science and Engineering offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Materials Science and Engineering.

Materials Science and Engineering

Lower Division Courses

10. Freshman Seminar: New Materials. (2) (Formerly numbered 98) Seminar, two hours; outside study, four hours. Preparation: high school chemistry and physics. Not open to students with credit for course 14. Introduction to basic concepts of materials science and new materials vital to advanced technology. Microstructural analysis and various material properties discussed in conjunction with such applications as biomedical sensors, pollution control, and microelectronics. Letter grading.


90L. Physical Measurement in Materials Engineering. (2) Laboratory, four hours; outside study, two hours. Various physical measurement methods used in materials science and engineering. Mechanical, thermal, electrical, magnetic, and optical techniques. Letter grading.

Upper Division Courses

110L. Introduction to Materials Characterization A Laboratory. (2) Laboratory, two hours; outside study, four hours. Lectures, two hours; Laboratory, four hours. Familiarization with techniques and analysis of materials through X-ray scattering: powder method, x-ray method, crystal structure determination, and special projects. Letter grading.


121. Materials Science of Semiconductors. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Study of atomic structure and properties of elemental and compound semiconductors. Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques. Heterostructures, band-gap engineering, development of new materials for optoelectronic applications. Letter grading.

121L. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Corequisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.


141L. Computer Methods and Instrumentation in Materials Science. (4) (Formerly numbered 191L.) Laboratory, four hours. Preparation: knowledge of BASIC or C or assembly language. Limited to junior/senior Materials Science and Engineering majors. Interface and control techniques, real-time data acquisition and processing, computer-aided testing. Letter grading.

143A. Mechanical Behavior of Materials. (4) Lecture, four hours; outside study, eight hours. Requisite: course 14. Recommended: Civil Engineering 108. Pioneering studies in load testing, loading rate and stress effects, cyclic loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, and mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Laboratory, four hours. Requisites: 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, three hours; laboratory, two hours. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structure and morphology, and their effects on physical properties. Glassy polymers, springy polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.


160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 14, 130. Introduction to ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications in engineering. Letter grading.

161. Processing of Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour. Requisite: course 160. Study of processes used in fabrication of ceramics and glasses for structural applications, optics, and electronics. Processing operations, including modern techniques of powder synthesis, greenware forming, sintering, glass melting. Microstructure properties relations in ceramics. Fracture analysis and design with ceramics and glasses. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 14, Electrical Engineering 100. Utilization of ceramics in microelectronics, thick-film and thin-film technologies, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics: ferroelectric ceramics and electro-optic devices; optical wave guide applications and designs. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Oral presentation and communication skills provided by building on strengths of individual personal styles in creation of positive interpersonal relations. Skill provided to all engineering student co-op and internship students. Letter grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) (Formerly numbered 197.) Lecture, one hour; discussion, one hour; outside study, four hours. Development of 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 primary literature and publications. Instruction leads students through several crucial steps, including brainstorming, choosing title, coming up with outline, concise writing of abstract, conclusion, and final polishing. Other subjects include writing style, word choices, and grammar. Letter grading.

CM180. Introduction to Biomaterials. (4) (Same as Biomedical Engineering CM180.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 14, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair or restorations 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.

188. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in materials science and engineering for undergraduates that are taught on experimental or temporary basis, such as courses taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field 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.

Graduate Courses


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222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 120, 131, Fabrication, structure, and property considerations of thin films used in microelectronics and information. Topics include film deposition, interfacial properties, stress, and strain, electromigration, phase changes and kinetics, reliability. Letter grading.

231. Materials Science of Thin Films. (4) Lecture, four hours; outside study, eight hours. Designed for graduate engineering students. Deposition methods used in high-technology applications. Theoretical and experimental details of physical vapor deposition (PVD), chemical vapor deposition (CVD), plasma-assisted vapor deposition processes, plasma spray, electrodeposition. Applications in semiconductor, chemical, optical, mechanical, and metalurgical industries. 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 or Mechanical and Aerospace Engineering 156B. Elastic and plastic behavior of crystals, geometry, mechanics, and interaction of dislocations, mechanisms of yielding, work hardening, and other strengthening. Letter grading.

244. Electron Microscopy. (4) Lecture, four hours; outside study, eight hours. Requisite: course 111. Essential features of electron microscopy, geometry of electron diffraction, and dynamics and theoretical theories of electron diffraction, including anomalous absorption, applications of theory to defects in crystals. Moire fringes, direct lattice resolutions, Lorentz microscopy, laboratory applications of contrast theory. Letter grading.


246A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; outside study, eight hours. Requisite: course 160. Material and environmental factors affecting mechanical properties of nonmetallic crystalline solids, including atomic bonding and structure, atomic-scale defects, microstructural features, residual stresses, temperature, stress state, strain rate, size, and surface conditions. Methods for evaluating mechanical properties. Letter grading.


258B. Introduction to Biomaterials. (4) Same as Biomedical Engineering CM258B.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 14, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

296. Seminar: Advanced Topics in Materials Science and Engineering. (2 to 4) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in research specialty of faculty members teaching course. May be repeated for credit. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate materials science and engineering students. Seminar may be arranged in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship personal employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for M.S. Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Reading and preparation 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 materials science and 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 materials science and engineering students. Supervised independent research for M.S. candidates, including thesis project. 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.

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MATHMATICS

College of Letters and Science

UCLA

6363 Math Sciences

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http://www.math.ucla.edu

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Don M. Blasius, Ph.D. Graduate Vice Chair

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Professors

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Andrea Bertozzi, Ph.D.
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Gregory Hjorth, Ph.D.
Ken-Chau Li, Ph.D.
Thomas M. Liggett, Ph.D.
Keleng Liu, Ph.D.
D. Anthony Martin, Ph.D.
Scope and Objectives

Gauss has called the 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

Admission

Students entering UCLA directly from high school who declare one of the five mathematics majors offered by the department at the time they apply for admission are automatically admitted to that major. UCLA students who wish to enter one of the majors offered by the department at the time they apply for admission are automatically admitted to that major.

Mathematics 113, 115A, 131A, 132, 142, 151A and 151B are not open for credit to students with credit for Electrical Engineering 131A.

Program in Computing 1 is designed for students who wish a broad, general introduction to the topic of computers and computation, but students who have no prior experience in computing.

Students who wish a broad, general introduction to the topic of computers and computation, but students who have no prior experience in computing.

Students may not take or repeat a mathematics 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 Mathematics 31B, they must do so before completing course 32A).

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 1 and 1A).

Students may not take or repeat a mathematics 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 Mathematics 31B, they must do so before completing course 32A).

Credit Limitations

Credit is given for at most one course in each of the following groups: (1) 3A, 31A; (2) 3B, 31B, 31E; (3) 3C, 32A; (4) 110A, 117.

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 1 and 1A).

Course prerequisites (Mathematics Diagnostic Test). Students who take the BC Test and obtain a score of 4 or 5 receive 8 units of credit and Mathematics 31A, 31B equivalency; those with a score of 3 receive 8 units of calculus and analytic geometry credit. 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 3 on the AB or BC examination should consult the undergraduate mathematics counselor prior to enrolling in a calculus course at UCLA.

Mathematics Upper Division Courses

Mathematics 113, 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 a broad, general introduction to the topic of computers and computation, but who have no prior experience in computing. Courses 10A, 10B, and 10C provide an extensive introduction to programming, using the C++ language. Courses 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 upper division coursework in computer science. These students should seek the advice of their major department.

Undergraduate Majors
The department offers five majors: Mathematics, Applied Mathematics, Mathematics of Computation, Mathematics/Applied Science, and General Mathematics. The department also participates with the Economics Department in the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics 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 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 General Mathematics 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 actuarial science, management/accounting, mathematics/history of science, medical and life sciences, and operations research.

Courses taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

Mathematics B.S.
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, Physics 1A, 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 passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students
Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, 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.

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 120B. The 12 courses must be passed with a minimum overall grade-point average of 2.0.

Applied Mathematics B.S.
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, Physics 1A, 1B, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

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.

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 120B; three upper division computer science courses (12 units). The 14 courses must be passed with a minimum overall grade-point average of 2.0.

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: actuarial science, management/accounting plan, mathematics/history of science plan, medical and life sciences plan, or operations research 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.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses. Additional preparation, varying with the individual program, may be required.

Transfer Students
Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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 120B; three upper division computer science courses (12 units). The 14 courses must be passed with a minimum overall grade-point average of 2.0.

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: actuarial science, management/accounting plan, mathematics/history of science plan, medical and life sciences plan, or operations research 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.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses. Additional preparation, varying with the individual program, may be required.

Transfer Students
Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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 120B; three upper division computer science courses (12 units). The 14 courses must be passed with a minimum overall grade-point average of 2.0.
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:** 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. The seven Mathematics Department courses must be passed with an overall grade-point average of 2.0, as must the seven courses outside mathematics.

At least five of the courses from the related discipline must be taken after the program has been approved. Students are not admitted to the major if they have 135 or more units by the end of the term in which they plan to enter the program.

### Actuarial Plan

**Preparation for the Major**


**The Major**

**Required:** Seven mathematics/statistics courses, including Mathematics 115A, 151A, 164, 170A and 170B or Statistics 100A and 100B or 110A and 110B, and two courses from Mathematics 106 through 199 and Statistics 100C through 120A; six outside courses, including Economics 101, 102, 160, one course from Economics 141A through 148, and two courses from Economics 103 through 199A and English Composition 131A through 131D.

**Management/Accounting Plan**

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A.

**The Major**

**Required:** Seven Mathematics Department courses, including Mathematics 115A, 131A, 131B, 151A, 170A or Statistics 100A or 110A, Mathematics 170B or Statistics 100B or 110B, and two courses from Mathematics 106 through 199 and Statistics 100C; eight management courses, including Management 100, 120A, 120B, 122, 140, 212A, 212B, and one additional course from 108 through 182.

### 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.

**The Major**

**Required:** Eight Mathematics Department courses, including Mathematics 106, 115A, 131A, 135A, 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.

### Medical and Life Sciences Plan

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, Life Sciences 1, 2, 3, 4, Physics 1A, 1B.

**The Major**

**Required:** Seven Mathematics Department courses, including Mathematics 115A, 135A, 151A, 170A, 170B, and two courses from 110A through 199 and Statistics 100B through 120B; six outside courses, including Physiological Science 111A, 111B, and 111C or M180A, M180B, and M160C, and three courses from Biomathematics 110, Computer Science M186B, Physiological Science 100, 135 (appropriate courses from other departments may be substituted for some of the courses provided departmental consent is given before such courses are taken).

### Operations Research Plan

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Economics 1, 2, 11, Program in Computing 10A.

**The Major**


### General Mathematics B.S.

The General Mathematics 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.

**Preparation for the Major**

**Required:** Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A, and three courses from the Physics 1 or 6 sequence, Chemistry and Biochemistry 20A, 20B, or Program in Computing 10B, 10C, 30, 60. Each course must be passed with a minimum grade of C-, and students must have a minimum overall grade-point average of 2.0 for the courses.

### Transfer Students

Transfer applicants to the General 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 discrete structures course, one C++ programming course, and three courses from calculus-based physics, general chemistry for majors, and computing.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

### Honors Courses

**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, Mathematics/Applied Science, or General Mathematics 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
Mathematics Lower Division Courses

1. Precalculus. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Requisite: successful completion of Mathematics Diagnostic Test. Function concept; geometry of basic figures in plane and space, measurement, symmetry, vector arithmetic, complex numbers. P/NP or letter grading.


3. 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 a 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 a grade of C– or better. Techniques and applications of integral calculus, introduction to differential equations and multivariable differential calculus. P/NP or letter grading.

3C. Calculus and Probability for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3B with a grade of C– or better. Elementary probability, probability distributions, random variables, and statistics. P/NP or letter grading.

5. Mathematics and Science Scholars Excellence through Collaboration for Efficient Learners Workshop. (1) Discussion, four hours. Corequisite: associated mathematics/science course such as Mathematics 31A, 32B, etc. Preferential enrollment to students admitted to Mathematics and Science Scholars Program. Development of intuition and problem-solving skills in collaborative learning environment. Students must fulfill total of 30 hours to receive credit. May be repeated for credit with topic and instructor change. P/NP grading.

5A. Workshop in Differential Calculus. (1) 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 a grade of C– or better. Differential calculus and applications; introduction to integration. P/NP or letter grading.

31A. Differential 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 a 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 a grade of C– or better. 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. 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 a 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, optimization, constrained optimization. P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Requisite: course 31B with a 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. Requisite: course 31B with a grade of B or better. Honors sequence parallel to courses 32A, 32B.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Requisite: course 32A with a grade 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. Requisite: course 32A with a grade of C– or better. Introduction to linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-squares methods, determinants, eigenvalues and eigenvectors, matrix diagonalization, and symmetric matrices. P/NP or letter grading.

33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 33A. P/NP or letter grading.

33B. Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisite: course 32A with a 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.

38A-38B-38C. Concepts of Elementary School Mathematics. (4-4-4) (Course 38C is formerly numbered 104.) Lecture, four hours. Not open to freshmen. Courses 38A, 38B, and 38C form one-year sequence for prospective elementary teachers in Diversified Liberal Arts Program. Counting numbers and other subsystems of real numbers, arithmetic operations and algorithms, place value, algebraic thinking, function concept; geometry of basic figures in plane and in space, measurement, symmetry; elementary probability and data analysis. Emphasis on problem solving, mathematics reasoning, and sense-making procedures. P/NP or letter grading.

61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, Program in Computing 10A. Not open for credit to students with credit for course 113. Discrete structures commonly used in computer science and mathematics, including sets and relations, permutations and combinations, graphs and trees, induction, Boolean algebras. P/NP or letter grading.

Upper Division Courses

General and Teacher Training

105A-105B. Teaching of Mathematics. (4-4) Lecture, four hours. Designed for senior mathematics department majors. Course 105A is requisite to 105B. Topics in geometry, algebra, number theory, discrete mathematics, and functions presented from problem-solving and student participation point of view, with emphasis on historical context and appropriate role of proof. P/NP or letter grading.
110A-110B. Algebra. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 115A. 110A. Not open for credit to students with credit for course 117. Ring of integers, integral domains, fields, polynomial domains, unique factorization. 110B. Groups, structure of finite groups.

110AH-110BH. Algebra (Honors). (4-4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B.

110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B. Field extensions, Galois theory, applications to geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A or 117, 115A. Divisibility, congruences, Diophantine analysis, selected topics in theory of primes, algebraic number theory, Diophantine equations.

112. Introduction to Set Theory. (Same as Philosophy 134.) Lecture, three hours; discussion, one hour. Requisite: course 110A or 121 or 131A or Philosophy 135. Axiomatic set theory as framework for mathematical concepts; relations and functions, ordinal and cardinal numbers, transfinite numbers. P/NP or letter grading.

113. Combinatorics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Permutations and combinations, counting principles, recurrence relations and generating functions, combinatorial designs, graphs and trees, with applications including games of complete information. Combinatorial existence theorems, Ramsey theorem.

114A-114B. Logic and Computability. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Propositional and predicate logic; syntax and semantics; formal deductions; completeness and compactness; Herbrand expansions. Effectively computable, Turing computable, and recursive functions; thesis of Church. Universal functions; unsolvability results. Recursive and recursively enumerable sets; recursively computable functions. Formal number theory; definability of recursive functions; incompleteness and undecidability; theorems of Gödel, Tarski, Church. P/NP or letter grading.

115A-115B. Linear Algebra. (4-4) Lecture, three hours; discussion, one hour. P/NP or letter grading.

115A. Requisite: course 33A. Abstract vector spaces, linear transformations, and matrices; determinants; inner product spaces; eigenvector theory. 115B. Requisite: course 115A. Linear transformations, conjugate spaces, duality; theory of a single linear transformation, Jordan normal form; bilinear forms, quadratic forms; Euclidean and unitary spaces, symmetric skew or orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (4) Lecture, three hours; discussion, one hour. Honors course parallel to course 115A.

115AX-115BX. Workshops in Linear Algebra. (1-1) Discussion, one hour. Corequisite for course 115AX: course 115A; for course 115BX: course 115B. Supplementary techniques and applications for solving problems in linear algebra. Limits of investigation set by individual instructor. P/NP grading.

115HX. Workshop in Linear Algebra (Honors). (1) Discussion, one hour. Corequisite: course 115AH. Honors course parallel to course 115AX. P/NP grading.


170A. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Not open to students with credit for Electrical Engineering 131A or Statistics 100A. Probability distributions, random variables and vectors, expectation. P/N or letter grading.

170B. Probability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 170A or Statistics 100A. Discrete Markov chains, continuous-time Markov chains, renewal theory. P/N or letter grading.

172A-172B. Actuarial Mathematics. (4-4) Lecture, four hours. Letter grading. 172A. Requisite: course 170A or Statistics 100A or 110A. Annuities, amortization, life annuities, pension applications. 172B. Requisite: course 172A. Multiple life functions, applications to life insurance, pensions, and health insurance.


Special Studies

191. Advanced Variable Topics in Mathematics. (4) (Formerly numbered 197.) Seminar, three hours. Variables 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/N or letter grading.

191H. Honors Seminar: Mathematics. (4) Formerly numbered 190.) Seminar, three hours. Participating seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/N or letter grading.

195. Community Internship in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. May be repeated for credit with topic and/or instructor change. P/N or letter grading.

197. Individual Studies in Mathematics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. At discretion of chair and subject to availability of staff, individual intensive study of topics suitable for undergraduate course credit but not specifically offered as separate courses. Scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit with topic and/or instructor change. P/N or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culminating report required. May be repeated for credit with topic and/or instructor change. P/N 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, integrals, derivatives, power 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. Development of mathematical theories describing various empirical situations. Basic characterizing postulates; development of a logical structure of theorems. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward M.A. degree requirements.

Number Theory

205A-205B-205C. Number Theory. (4-4-4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including algebraic theory, valuation, local fields, cyclotomic fields. Introduction to class-field theory, analytic number theory, L-functions and class number formulas, and modular forms. S/U or letter grading.


207A-207B-207C. Topics in Number Theory. (4-4-4) Lecture, three hours. Adelic analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves, P/N or letter grading.


M209A. Cryptography. (4) (Same as Computer Science M282A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption, 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.

M209B. Cryptographic Protocols. (4) (Same as Computer Science M282B.) Lecture, four hours. Requisite: course M209A. Consideration of advanced cryptographic protocol design and analysis. Topics include non-interactive zero-knowledge protocols, knowledge arguments; concurrent and non-black-box zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-ciphertext security; multiparty computation; dealing with dynamic adversary; nonmalleability and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols, identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.

Algebra

210A-210B-210C. Algebra. (4-4-4) Requisites: courses 110A, 110B. Credit for courses 110B and/or 110C cannot be applied toward a M.A. degree credit for courses 210B and/or 210C. Group theory, including theorems of Sylow and Jordan/Holden/Schreier; rings and ideals, factorization theory in integral domains, modules over principal ideal rings, Gaussian 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.

212. Homological Algebra. (4) Requisite: course 210A. Modules over a ring, homomorphisms and tensor products of modules, functors and derived functors, homological dimension of rings and modules.

213A-213B. Theory of Groups. (4-4) Requisite: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, solvable and nilpotent groups, classical groups, algebraic groups.

214A-214B. Introduction to Algebraic Geometry. (4-4) Requisite: course 210A. Basic definitions and first properties of algebraic varieties in affine and projective space; irreducible, singular and smooth points. More advanced topics, such as sheaves and their cohomology, or introduction to the theory of Riemann surfaces, as time permits.
225C. Further Topics in Geometry and Topology. (4) Lecture, three hours. Requires: courses 225A, 225B. Topics may include cohomology (singular, cellular, de Rham), duality theorems, de Rham theorem, degree theory, cup products, higher homotopy groups, transversality theory, Morse theory, Riemannian metric.

226A-226B-226C. Differential Geometry. (4-4-4) Lecture, three hours. Requires: course 225A. Manifold theory; connections, curvature, torsion, and parallelism. Riemannian manifolds; completeness, submanifolds, constant curvature. Geodesics; conjugate points, variational methods, Myers theorem, nonpositive curvature. Further topics such as pinched manifolds, integral geometry, Kahler manifolds, symmetric spaces.


233. Partial Differential Equations on Manifolds. (4) Lecture, three hours. Requires: courses 226A, 251A. Topics may include Laplacian operator on a Riemannian manifold, eigenvalues, Atiyah/Singer index theorem, isoperimetric inequalities, elliptic estimates, harmonic functions, function theory on manifolds, Green's function, heat equation, minimal hypersurfaces, prescribed curvature equations, harmonic maps, Yang/Mills equation, Monge/Ampere equations.

234. Topics in Differential Geometry. (4) Lecture, three hours. Requires: courses 226A, 226B, 226C. Complex and Kahler geometry, Hodge theory, homogeneous manifolds and symmetric spaces, finiteness and convergence theorems for Riemannian manifolds, almost flat manifolds, closed geodesics, manifolds of positive scalar curvature, manifolds of constant curvature. Topics vary from year to year. May be repeated for credit by petition.


236. Topics in Geometric Topology. (4) Lecture, three hours. Requires: courses 225A, 225B, 225C. Topics include homotopy groups, fundamental groups, vector fields and integral curves, Lie brackets and Frobenius theorem, Lie derivative, tensors, differential forms and exterior derivative, Stokes theorem on manifolds.

237. Topics in Algebraic Topology. (4) Lecture, three hours. Requires: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, characteristic classes, generalized homology and cohomology theories. Topics vary from year to year. May be repeated for credit by petition.

238. Dynamical Systems. (4-4) Lecture, three hours. Requires: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, characteristic classes, generalized homology and cohomology theories. Topics vary from year to year. May be repeated for credit by petition.

Analysis and Differential Equations


250C. Advanced Topics in Ordinary Differential Equations. (4) Requires: courses 250A, 250B. Lectures on topics such as applications to ordinary differential operators, nonlinear boundary value problems, celestial mechanics, approximation of solutions, and Wronskian equations.


251B-251C. Topics in Partial Differential Equations. (4-4) In-depth introduction to topics of current interest in partial differential equations or their applications.


254A-254B. Topics in Real Analysis. (4-4) Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C. Selected topics in analysis; 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) Requisite: course 255A. Topics include Banach algebras, operators on Banach spaces and Hilbert space, semigroups of operators, linear topological vector spaces, and other related areas.


Applied Mathematics


M261. Game Theory. (4) (Same as Economics M221B and Political Science M208A.) Lecture, three hours. Designed for graduate economics, mathematicians, and political science students. Bargaining theory, the core, the value, other solution concepts. Applications to oligopoly, general exchange and production economies, and allocation of joint costs. S/U or letter grading.

264. Applied Complex Analysis. (4) Requisite: course 246A. Topics include contour integration, conformal mapping, Cauchy's integral formula, general properties of analytic functions, singularities, the residue theorem, and applications to ordinary differential equations, integral transforms, and Laplace transforms. S/U or letter grading.


266D-266E. Applied Differential Equations. (4-4) Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear partial differential equations, with emphasis on estimates, numerical methods, and applications to fluid mechanics. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics.


271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds, differentials, and coordinate-free methods. Covariant differentiation. Green/Stokes theorem for differential forms. Applications to topics such as continuum and particle mechanics.


Probability and Statistics

275A-275B. Probability Theory. (4-4) Requisite: course 245A or 265A. Connection between probability theory and real analysis. Weak and strong laws of large numbers, central limit theorem, conditioning, ergodic theory, martingale theory.


275E. Stochastic Particle Systems. (4) Lecture, three hours. Requisite: course 275C. Interacting particle systems, including contact process, stochastic ising model, and exclusion processes; percolation theory. S/U or letter grading.

Special Studies

285A-285L. Seminars. (4 each) (Formerly numbered 285A-285N.) Seminar, three hours. No more than two 285 courses may be applied toward M.A. degree requirements except by prior consent of graduate vice chair. Topics in various branches of mathematics and their applications by means of lectures and informal conferences with staff members. S/U or letter grading.

285A. History and Development of Mathematics.

285B. Number Theory.

285C. Algebra.

285D. Geometry.

285E. Topology.

285F. Analysis.

285G. Differential Equations.


285K. Probability.

285L. Dynamical Systems. (Formerly numbered 285N.)

290A-290M. Seminars: Current Literature. (4 each) (Formerly numbered 290.) Seminar, three hours. Designed for Ph.D. students. Readings and presentations of papers in mathematical literature under supervision of staff member. Two-hour presentation required. S/U grading:

290A. History and Development of Mathematics.

290B. Number Theory.

290C. Algebra.

290D. Logic.

290E. Geometry.

290F. Topology.

290G. Analysis.

290H. Differential Equations.

290I. Functional Analysis.

290J. Applied Mathematics.

290K. Probability.

290L. Dynamical Systems.

290M. Mathematics.

296A-296M. Participating Seminars. (1 each) (Formerly numbered 296A-296N.) Seminar, two hours. Seminars and discussion by staff and students. S/U grading:

296A. History and Development of Mathematics.

296B. Number Theory.

296C. Algebra.

296D. Logic.

296E. Geometry.

296F. Topology.

296G. Analysis.

296H. Differential Equations.

296I. Functional Analysis.

296J. Applied Mathematics.

296K. Probability.

296L. Dynamical Systems. (Formerly numbered 296N.)

296M. Mathematics.

300. Observation and Participation: Mathematics and Science Instruction. (1 to 2) Seminar, one hour: classroom observation and participation, two hours. Observation, participation, or tutoring in mathematics and science classes at middle school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

370A-370B. Teaching of Mathematics. (4-4) Lecture, three hours; discussion, one hour. Requisite: course 32B. Limited to senior Mathematics Department majors. Course 370A is requisite to 370B. Topics in geometry, algebra, number theory, discrete mathematics, and functions presented from a problem-solving and student participation point of view, with emphasis on historical context and appropriate role of proof. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. 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 mechanics of technology 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, but only 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. Fundamentals of computers and computing; editors, spreadsheets, file manager; computer organization and computer hardware; Internet; software applications. 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 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 the C++ class mechanism; dynamic data structures, including linked lists, stacks, queues, trees, and hash tables; applications; object-oriented programming and software reuse; recursion; algorithms for sorting and searching.

10C. Advanced Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. More advanced algorithms and data structuring techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms.

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. Basic features and extensions, recursion, function abstraction. Advanced topics: knowledge 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 requisite: course 10A. 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 requisite: course 20A. Further aspects of use of classes, graphics components, exception handling, multithreading, and multimedia. Additional topics may include networking, sockets, database connectivity, and Java Beans. P/NP or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laboratory, five hours. Enforced requisite: 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 requisite: course 10A. Further topics: use of machine organization and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing and interrupt handling.

40A. Introduction to Programming for Internet. (5) (Formerly numbered 40.) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: 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 requisite: course 40A. 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 requisite: 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. Requisite: course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming of parallel computers. Shared and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics.

130. Cryptography. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Requisites: course 10B, Mathematics 115A. Design and analysis of cryptosystems for confidentiality and authentication. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factoring integers, discrete logarithms, digital signatures, perfect secrecy. P/NP or letter grading.

187. Advanced Variable Topics in Programming. (4) (Formerly numbered 197.) 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) 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 the University. May be repeated for credit. S/U grading.

Mathematics/Atmospheric and Oceanic Sciences

Interdepartmental Program
College of Letters and Science

UCLA
7127 Math Sciences
Box 951565
Los Angeles, CA 90095-1565
(310) 825-1217
fax: (310) 206-5219
e-mail: deptinfo@atmos.ucla.edu
http://www.atmos.ucla.edu

Robert G. Fovell, Ph.D., Co-Chair
Ronald J. Miech, Ph.D., Co-Chair

Faculty Advisory Committee

Robert G. Fovell, Ph.D. (Atmospheric and Oceanic Sciences)
Nathaniel Grossman, Ph.D. (Mathematics)
Ronald J. Miech, Ph.D. (Mathematics)
J. David Neelin, Ph.D. (Atmospheric and Oceanic Sciences)

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

Mathematics/Atmospheric and Oceanic Sciences B.S.

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, and 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 be passed with a grade of C- or better, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students

Transfer applicants to the 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, 135A, and three elective courses selected from 115B, 131B, 135B, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six atmospheric and oceanic sciences courses, including three core courses selected from Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, and three elective courses selected from the five listed above (if not taken to satisfy the core requirement) or from C110, C115, CM120, C125, 130, C145, C160, C165, C170, 180, CM185.

One senior projects/thesis course, Atmospheric and Oceanic Sciences 199, taken for a minimum of 2 units, is also required. An individual project or thesis to be selected with the assistance of the program advisers and a faculty mentor must be completed.

No more than one course may be applied toward both this major and a major or minor in another department or program.

Mathematics/ Economics

Interdepartmental Program
College of Letters and Science

UCLA
6363 Math Sciences
Box 951555
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e-mail: ugrad@math.ucla.edu
http://www.math.ucla.edu/undergrad/mathecon.html

Jonathan D. Rogawski, Ph.D., Chair

Faculty Advisory Committee

Don M. Blasius, Ph.D. (Mathematics)
Robert F. Brown, Ph.D. (Mathematics)
Russel E. Caffisch, Ph.D. (Mathematics)
Bryan G. Eliccion, Ph.D. (Economics)
Ekaterini Kyriazidou, Ph.D. (Economics)
Jonathan D. Rogawski, Ph.D. (Mathematics)
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.

Undergraduate Study

Mathematics/Economics B.S.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11. Program in Computing 10A. Each course must be passed with a minimum grade of C–, and students must have a minimum overall grade-point average of 2.0 for the courses.

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, two principles of economics courses, one microeconomic theory course, 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: Seven mathematics/statistics courses, including Mathematics 115A, 131A, 170A or Statistics 100A, 170B or Statistics 100B, two courses from Mathematics 110A (or 117), 164, 167, and 181, and one additional course from Mathematics 110B through 199 and Statistics 100C, 120A, and 120B; six economics courses, including Economics 101, 102, one additional course from 105AH through 199A, and one three-semester sequence or group of courses from the following: (1) option A (mathematical finance) — courses 141A, 141B, 141C, (2) option B (economics/regression analysis) — courses 103, 143, 147A, or (3) option C (general mathematics/economics) — three courses from Economics 141A through 148 and Mathematics 181.

Mathematics 181 may not be applied toward both the option C requirement and the mathematics course requirements; Economics 141A or the 141A/141B sequence may be applied toward option C.

The 13 courses must be passed with a minimum overall grade-point average of 2.0.

Honors Program

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses with an overall grade-point average of 3.5 or better.

To qualify for honors at graduation, students must (1) complete Mathematics 110B or 131B, (2) prepare a senior thesis acceptable to the departmental honors committee, (3) present the thesis in Economics 198A and 198B, and (4) complete the major requirements with at least a 3.5 GPA in the mathematics and 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.

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 113, 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 Samuelsi School of Engineering and Applied Science

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H. Thomas Hahn, Ph.D., Chair

Nasr M. Ghoniem, Ph.D., Vice Chair

Tsu-Chin Tsao, Ph.D., Vice Chair

Professors

Mohamed A. Abdou, Ph.D.

Oddvar O. Bendiksen, Ph.D.

Gregory P. Carman, Ph.D.

Albert Carnesale, Ph.D.

Ivan Catton, Ph.D.

Yong Chen, Ph.D.

Vijay K. Dhir, Ph.D., Dean

Rajat Gadh, Ph.D.

Nasr M. Ghoniem, Ph.D.

James S. Gibson, Ph.D.

Vijay Gupta, Ph.D.

H. Thomas Hahn, Ph.D. (Raytheon Company Professor of Manufacturing Engineering)

Chih-Ming Ho, Ph.D. (Ben Rich Lockheed Martin Professor of Aeronautics)

Ann R. Kuroiizumi, Ph.D.

Chang-Jin (C-J) Kim, Ph.D.

J. John Kim, Ph.D. (Rockwell International Professor of Engineering)

Adrienne G. Lavine, Ph.D.

Kuo-Nan Liou, Ph.D.

Ajit K. Mal, Ph.D.

Anthony F. Mills, Ph.D.

Carlo D. Montemagno, Ph.D.

Jeff S. Shamma, Ph.D.

Owen I. Smith, Ph.D.

Jason Speyer, Ph.D.

Tsu-Chin Tsao, Ph.D.

Daniel C. H. Yang, Ph.D.

Xiang Zhang, Ph.D.

Professors Emeriti

Andrew F. Charwat, Ph.D.

Peretz P. Friedmann, Sc.D.

Walter C. Hurty, M.S.

Robert E. Kelly, Sc.D.

Connelius T. Leondes, Ph.D.

Michel A. Melkanoff, Ph.D.

D. Lewis Mingori, Ph.D.

Peter A. Monkewitz, Ph.D.

Philip F. O’Brien, M.S.

David Okrent, Ph.D.

Russell R. O’Neill, Ph.D., Dean Emeritus

Lucien A. Schmit, Jr., M.S.

Chauncey Starr, Ph.D., Dean Emeritus

Richard E. Stern, Ph.D.

Russell A. Westermann, Ph.D.

Associate Professor

Robert T. M’Closkey, Ph.D.

Assistant Professors

Jeff D. Eldredge, Ph.D.

Emilio Frazzoli, Ph.D.

Yongho Sungtaek, Ph.D.

H. Pirouz Kavehpour, Ph.D.

William S. Klug, Ph.D.

Laurent Pilon, Ph.D.

Lecturers

Ravesh C. Amar, Ph.D.

Amiya K. Chatterjee, Ph.D.

Wilbur Marner, Ph.D.

Rudolf X. Meyer, Dr.Eng.

Adjunct Professors

Giang Chen, Ph.D.

Leslie M. Lackman, Ph.D.

Joseph Miller, Ph.D.

Neil B. Morley, Ph.D.

Raymond Viakantana, Ph.D.

Xiang Zhang, Ph.D.

Scope and Objectives

The Mechanical and Aerospace Engineering Department encompasses professional disciplines that are often divided into separate departments at other engineering schools. Cur-
ricula in aerospace engineering and mechani-
cal engineering are offered on both the
undergraduate and graduate levels. The Gour-
man Report ranked UCLA’s mechanical engi-
neering program tenth in the nation for under-
graduate programs.

Because of the scope of the department, fac-
ulty research and teaching cover a wide range
of technical disciplines. Research in thermal
engineering emphasizes basic heat and mass
transfer processes as well as thermal hydrau-
lics. Topics in the area of design, dynamics,
and control include robotics, mechanism de-
sign, control and guidance of aircraft and space-
craft, aeromechanics, and dynamics and con-
trol of large space structures. Studies in
structural mechanics range from fracture me-
chanics and wave propagation, structural dy-
namics and aeroelasticity of helicopters and jet
engine blades, computational transonic aero-
elasticity to structural optimization and
synthesis, and mechanics of composite struc-
tures. In the area of fluid mechanics and acous-
tics, investigations are under way on
combustion, flow instabilities, turbulence and
thermal convection, aeroacoustics, and un-
steady aerodynamics of turbomachines, heli-
copter rotors, and fixed-wing aircraft. Other
areas of research include applied plasma phys-
ics, surface modification by plasma, fusion
reactor design, experimental tokamak confine-
ment physics; light water reactor safety; reli-
ability and risk assessment methodology; and
nuclear materials. The department also has re-
search activity in computer-aided design and
manufacturing.

At the undergraduate level, the department of-
fers accredited programs leading to Bachelor of
Science degrees in Aerospace Engineering and
in Mechanical Engineering. The former in-
cludes opportunity to emphasize propulsion,
aerodynamics, design, dynamics and control,
or structures and space technology, while the
latter includes opportunity to emphasize de-
sign and manufacturing, dynamics and control,
or fluids and thermal engineering.

At the graduate level, the department offers
programs leading to M.S. and Ph.D. degrees in
Mechanical Engineering and in Aerospace Engi-
neering. An M.S. in Manufacturing Engineer-
ing is also offered.

Department Mission

The mission of the Mechanical and Aerospace
Engineering Department is to educate the na-
tion’s future leaders in the science and art of
mechanical and aerospace engineering. Fur-
ther, the department seeks to expand the fron-
tiers of engineering science and to encourage
technological innovation while fostering aca-
demic excellence and scholarly learning in a
collegial environment.

Undergraduate Program Objectives

In consultation with its constituents, the Me-
chanical and Aerospace Engineering Depart-
ment has set its educational objectives as fol-
lows: (1) to teach students how to apply their
rigorous undergraduate education to creatively
solve technical problems facing society and (2)
to prepare them for successful and productive
careers or graduate studies in mechanical or
aerospace or other engineering fields and/or
further studies in other fields such as medicine,
business, and law.

Undergraduate Study

Aerospace Engineering B.S.
The ABET-accredited aerospace engineering
program is concerned with the design and con-
struction of various types of fixed-wing and ro-
tary-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, ma-
terials and aeroelasticity, dynamics, control
and guidance, propulsion, and energy conver-
sion.

The Major

Course requirements are as follows (191 mini-
um units required):

1. Ten department core courses: Civil and
Environmental Engineering 108, Electrical
Engineering 100, Materials Science and
Engineering 14, Mechanical and Aero-
space Engineering 20, 102, 103, M105A,
105D, 157, 182A

2. Twelve aerospace engineering core
courses: Electrical Engineering 102, Me-
chanical and Aerospace Engineering
150A, 150B, 150P, 154A, 154B, 154S,
157A, 161A or 169A, 166A, 171A, and
one mathematics elective from Mechanical
and Aerospace Engineering 181A, 182B,
182C, Electrical Engineering 103, 131A

3. Sixteen technical elective units (which
should contain enough design units to sat-
isfy the overall program requirement of at
least 24 design units) selected from Me-
chanical and Aerospace Engineering
131A, 131AL, 132A, 133A, 133AL, 150C
(heat and mass transfer, thermodynam-
ics, combustion/propulsion); 153A (acous-
tics); 155, 163A, 169A (unless taken as
part of the core), 171B, Civil and Environ-
mental Engineering 137L, Electrical Engi-
neering 142 (dynamics and control); Me-
chanical and Aerospace Engineering
156B, 166C, 168, 183 (structural and solid
mechanics); Mechanical and Aerospace
Engineering 150R, 161A (unless taken as
part of the core), 161B, 161C, 161D
(space technology); 162A, 162C (design
and mechanisms); Materials Science and
Engineering 143A

4. Chemistry and Biochemistry 20A, 20B,
20L; Mathematics 31A, 31B, 32A, 32B,
33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL

5. HSEAS general education (GE) require-
ments. See http://www.seasoasa.ucla.
edu/ge.html for details

Mechanical Engineering

B.S.
The ABET-accredited mechanical engineering
program is designed to provide basic knowl-
extge in thermodynamics, fluid mechanics, heat
transfer, solid mechanics, mechanical de-
sign, dynamics, control, mechanical systems,
manufacturing, and materials. The program in-
cludes fundamental subjects important to all
mechanical engineers, with options in design
and manufacturing, dynamics and control, and
fluids and thermal engineering.

The Major

Course requirements are as follows (193 mini-
um units required):

1. Ten department core courses: Civil and
Environmengal Engineering 108, Electrical
Engineering 100, Materials Science and
Engineering 14, Mechanical and Aero-
space Engineering 20, 102, 103, M105A,
105D, 157, 182A

2. Eleven mechanical engineering core
courses: Electrical Engineering 110L, Me-
chanical and Aerospace Engineering 94,
131A, 133A, 156A, 162A, 162B, 162M,
169A, 171A, 183

3. Twenty technical elective units, to be se-
lected from the three subject areas listed
below, of which at least 12 units (including
at least 4 laboratory units) should be from
a single subject area:

a. Design and Manufacturing: Materials Sci-
ence and Engineering 143A, Mathematics
120A, Mechanical and Aerospace Engi-
near CM140, 155, 163A, 163C, 168,
171B, 174; laboratory courses: Mechani-
cal and Aerospace Engineering 162C,
172, M180, M180L, 184, 185

b. Dynamics and Control: Electrical Engi-
neering 102, 103, 131A, 131B, Materials
Science and Engineering 143A, Mathe-
matics 115A, 115B, 131A, 131B, Mechani-
cal and Aerospace Engineering CM140,
155, 165B, 163A, 168, 171B, 174, 181A;
laboratory courses: Civil and Environmen-
tal Engineering 137L, Mechanical and
Aerospace Engineering 162C, 172

c. Fluids and Thermal Engineering: Electrical
Engineering 103, Mechanical and Aero-
space Engineering 132A, 134, 136, 150A,
150B, 150C, 150P, 150R, 153A, 161A,
Upper Division Courses


102. Mechanics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 35A, Physics 1A. Newtonian mechanics (statics and dynamics) of particles and rigid bodies. Fundamental concepts of mechanics. Statics, kinematics, and kinetics of par-ticles, and rigid bodies. Fundamental concepts 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 applications of principles of mechanics to flow of compressible and in-compressible fluids. Letter grading.

M105A. Introduction to Engineering Thermody-namics. (4) (Same as Chemical Engineering M105A) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20B, Mathematics 32B. Phenomenological thermody-namics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and thermodynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.

105D. Transport Phenomena. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 103, M105A, Mathematics 32B, 33B. Transport phenomena; heat conduction, mass species diffusion, convective heat and mass transfer, and radiation. Engineering applications in thermal and environmental systems. Letter grading.


131AL. Thermodynamics and Heat Transfer Labo-ratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 131A, 157. Experimental study of physical phenomena and engineering systems using modern data acquisition and processing techniques. Experiments include studies of heat transfer phenomena and testing of a cooling tower, heat exchanger, and internal combustion engine. Stu-dents take and analyze data and discuss physical phenomena. Letter grading.


133A. Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 103, M105A, 105D. Applications of thermo-dynamics principles to energy engineering systems. Energy conversion systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and nonreactive fluid flow systems. Letter grading.

133AL. Power Conversion Thermodynamics Labo-ratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 133A, 157. Experimental study of power conversion and heat transfer systems using state-of-the-art plant process instrumentation and equipment. Experiments include studies of ther-modynamic operating characteristics of an actual Brayton cycle, Rankine cycle, compressive refrigeration unit, and absorption refrigeration unit. Letter grading.

134. Design and Operation of Thermal Hydraulic Power Systems. (4) Lecture, three hours; laboratory, three hours; outside study, six hours. Requisites: courses 133A, 133AL. Thermal hydraulic design, maintenance and operation of power systems, gas turbines, steam turbines, centrifugal refrigeration units, absorption refrigeration units, compressors, valves and piping instrumentation and control systems. Letter grading.

136. Thermal Hydraulic Design of Nuclear and Other Power Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for seniors. Thermal hydraulic design of nuclear and other power systems, power generation and heat removal, power cycle, thermal hydraulic compo-nent design, overall plant design, steady state and transient operation. Letter grading.

CM140. Introduction to Biomechanics. (4) (Same as Biomedical Engineering CM140.) Lecture, four hours; outside study, eight hours. Requisites: courses 102 (or Civil Engineering 108), 156A. Introduction to biomechanics of human body; skeletal adap-tations to optimize load transfer, mobility, and func-tion. Dynamics and kinematics. Fluid mechanics ap-plications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.


150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, M105A. Thermody-namics properties of gases, one-dimensional gas flow analysis and component performance, component matching, advanced aircraft engine topics. Letter grading.
150R. Rocket Propulsion Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 150P, 161A. 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. Letter grading.

153A. Engineering Acoustics. (4) Lecture, four hours; outside study, eight hours. Designed for junior/senior engineering majors. Fundamental course in acoustics; 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; outside study, eight hours. Required: course 154S. Classical preliminary design of an aircraft, including weight estimation, performance and stability, and control consideration. Term assignment consists of preliminary design of a low-speed aircraft. Letter grading.


154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design of an aircraft. Effects of airplane flexibility on stability derivatives. Letter grading.


157. Basic Mechanical Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 103, M105A, 105D, Civil Engineering 108, Electrical Engineering 100. Methods of measurement of basic quantities and performance of basic experiments in heat transfer, fluid mechanics, structures, and thermodynamics. Primary sensors, transducers, recording equipment, signal processing, and data analysis. Letter grading.

157A. Fluid Mechanics and Aerodynamics Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 150A, 150B, 157. 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 the field. Letter grading.

161A. Introduction to Astronautics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 102. Recommended: course 182A. Space environment of Earth, trajectories and orbits, stepRockets and staging, two-body problem, orbital transfer and rendezvous, problem of three bodies, elementary perturbation theory, influence of Earth's oblateness. Letter grading.


161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 161B. Coverage of preliminary design, by students, of a small, unmanned scientific pay-load with modest requirements for electric power, life-time, and attitude stability. Students work in groups of three or four, with each student responsible primarily for a subsystem and for integration with the whole. Letter grading.

161D. Space Technology Hardware Design. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Recommended requisite or corequisite: course 161B. Design, by students, of hardware with applications to space technology. Designs are then built by HSSEAS professional machine shop and tested by the students. New project carried out each year. Letter grading.


162B. Mechanical Product Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Requisites: courses 94, 156A, 162A, 183. Electrical Engineering 110L. Lecture and laboratory (design) course involving modern design theory and methodology for development of mechanical products. Economics, marketing, manufacturability, quality, and patentability. Design considerations taught and applied to hands-on design project. Letter grading.

162C. Electromechanical System Design Laboratory. (4) Lecture, one hour; laboratory, eight hours; outside study, three hours. Requisite: course 162B. Laboratory and design course consisting of design, development, construction, and testing of complex mechanical and electromechanical systems. Assembled machine is instrumented and monitored for operational characteristics. Letter grading.

162M. Senior Mechanical Engineering Design. (4) Lecture, one hour; laboratory, six hours; outside study, four hours. Requisites: courses 131A, 132A, 162B, 169A, 171A. Must be taken in last two academic terms of students' programs. Analytical course of a large engineering system. Design factors include functionality, efficiency, safety, reliability, aesthetics, and social impact. Final report of engineering specifications and drawings to be presented by design teams. Letter grading.

163A. Introduction to Computer-Controlled Machines. (4) Lecture, four hours; outside study, eight hours. Required or corequisite: course 171A. Modeling of computer-controlled machines, including electrical and electronic elements, mechanical elements, actuators, sensors, and overall electromechanical systems. Motion and command generation, servocontroller design, and computer/machine interfacing. Letter grading.

166A. Analysis of Flight Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: Civil Engineering 108. Introduction to two-dimensional elasticity, stress-strain laws, yield and fatigue; bending of beams; torsion of beams; warping; torsion of thin-walled cross sections: shear flow, shear-lag; combined bending torsion of thin-walled, stiffened structures used in aerospace vehicles; elements of plate theory; buckling of columns. Letter grading.

166C. Design of Composite Structures. (4) Lecture, four hours; outside study, eight hours. 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 design studies, buckling of composite components, stress analysis techniques, micromechanics of composites. Letter grading.

168. Introduction to Finite Element Technology. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: courses 200, Civil Engineering 108, Mathematics 33A. Recommended: courses 94 or 184, 166A. Introduction to finite element method (FEM) and its matrix formulation of computer implementation of FEM concepts; practical use of FEM codes. Preprocessing and postprocessing techniques; graphics display capabilities; geometric and analysis modeling; interactive engineering systems links with computer-aided design. Recent important trends in FEM technology; design optimization. Term projects using FEM computer codes. Letter grading.


171A. Introduction to Feedback and Control Systems: Dynamic Systems Control I. (4) Lecture, four hours; outside study, eight hours. Requisite: course 181A or 182A or Electrical Engineering 102. Introduction to feedback principles, control systems design, and system stability. Modeling of physical systems in engineering and other fields; transform methods; controller design using Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.

172. Control System Design Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requires: course 171A. Application of frequency domain design techniques for control of mechanical systems. Successful controller design requires students to formulate performance measures for control problem, experimentally identify mechanical systems, and develop understanding of design models. Exploration of issues concerning model uncertainty and sensor/actuator placement. Students implement control designs on flexible structures, rate gyroscope, and inverted pendulum. Detailed reports required. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; outside study, six hours. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure of components, reliability, redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.

M180. Introduction to Micromachining and Micro-electromechanical Systems (MEMS). (4) (Same as Biomedical Engineering M150 and Electrical Engineering M150L.) Lecture, three hours; outside study, nine hours. Requisites: Chemistry 20A, 20L, Physics 1A, 1B, 1C, 4AL, 4BL; Corequisite: course M180L. Introduction to micromachining and micro-electromechanical systems (MEMS). Methods of micromachining and how these methods can be used to produce variety of MEMS, including microstructures, microsensors, and microactuators. Students design micromanufacturing processes capable of achieving desired MEMS devices. Letter grading.

M180L. Introduction to Micromachining and Micro-electromechanical Systems (MEMS) Laboratory. (2) (Formerly numbered 180L.) (Same as Biomedical Engineering M150L and Electrical Engineering M150L.) Lecture, one hour; laboratory, four hours; outside study, eight hours. 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 devices. Letter grading.

181A. Complex Analysis and Integral Transforms. (4) (Formerly numbered 192A.) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 182A. Complex variables, analytic functions, conformal mapping, contour integrals, singularities, residues, Cauchy integrals; Laplace transform; properties; convolution, inversion; Fourier transform; properties, convolution, FFT, applications in dynamics, vibrations, structures, and heat conduction. Letter grading.


184. Introduction to Geometry Modeling. (4) (Formerly numbered 194.) Laboratory, eight hours; outside study, four hours. Students design control points for parametric curves and surfaces, including Bezier curve, coordinate transformations, and surface intersection. Analyzing and manipulating properties of curve and surface, hands-on experience with CAD/CAM systems design and implementation. Letter grading.

185. Computer Numerical Control and Applications. (4) (Formerly numbered 195.) Laboratory, eight hours; outside study, four hours. Designed for juniors/seniors. Fundamentals of numerical control (NC) technology. Programming of computer numerical control (CNC) machines in NC codes and APT language and with CAD/CAM systems. NC postprocessors and distributed numerical control. Operation of CNC lathes and milling machines. Programming and machining of complex engineering parts. Letter grading.

188. Special Courses in Mechanical and Aero- space Engineering. (2 to 4) (Formerly numbered 198.) Lecture, four hours; outside study, four to eight hours. Special topics in mechanical and aerospace engineering for undergraduate students that are taught on experimental or temporary basis, such as special lecture courses, only when visiting faculty or students may be repeated once for credit with topic or instructor change. P/NP or letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 4) Seminar, two hours; outside study, four hours. Open to students who are part of research group. Discussion of research methods and current literature in field. Student presentation of projects in research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aero- space Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 107B. Radiative energy transfer. Focus 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-matter interactions in addition to traditional areas such as combustion and thermal insulation. Letter grading.


231D. Application of Numerical Methods to Trans- port Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisite: course 132A. Numerical techniques for solving selected problems in heat and mass transfer. Applications include free convection, boiling, conduction, radiation, and transfer in porous media. Effects of concentration and temperature gradients, chemical reactions, radiation, electric and magnetic fields. Letter grading.


231F. Advanced Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 231A. Advanced topics in heat transfer from current literature. Linear and nonlinear theories of thermal and hydrodynamic instability; variational methods in transport phenomena; phenomenological theories of turbulent heat and mass transport. Letter grading.

231G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105B. Heat carriers (photons, electronics, phonons, molecules) and their energy characteristics, statistical properties of heat carriers, scattering and propagation of heat carriers, Boltzmann transport equations, derivation of Boltzmann transport equations, deviation from classical laws at small scale. Letter grading.

232B. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 132A. Formulation of general convective heat and mass transfer problem, including equilibrium and nonequilibrium chemistry. Similar and nonsimilar solu- tions for laminar flows; solution procedures for turbu- lent flows. Multicomponent diffusion. Application to hypersonic boundary layer, ablation and transpiration cooling, combustion. Letter grading.

235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 135, 192A. Underlying physics and mathematics of nuclear reactor (fission) core design. Diffusion theory, reactor kinetics, slowing down and thermalization, multigroup methods, introduction to transport theory. Letter grading.


239B. Seminar: Current Topics in Transport Phe- nomena. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, student presentations, and projects in areas of current interest in transport phe- nomena. May be repeated for credit. S/U grading.

239D. Seminar: Current Topics in Nuclear Engi- neering. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate me- chanical and aerospace engineering students. Lectures, discussions, student presentations, and projects in areas of current interest in nuclear engi- neering. May be repeated for credit. S/U grading.

239F. Special Topics in Transport Phenomena. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and cur- rent study of one to more aspects of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measure- ment techniques. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study in areas of current interest in nuclear engineering, such as reactor safety, risk-benefit trade-offs, nuclear ma- terials, and reactor design. May be repeated for credit with topic change. S/U grading.

239H. Special Topics in Fusion Physics, Engineer- ing, and Technology. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering stu- dents. Advanced treatment of subjects selected from research areas in fusion science and engineering, such as instabilities in burning plasmas, alternate fu- sion confinement concepts, inertial confinement fu- sion, fission-fusion hybrid systems, and fusion reactor safety. May be repeated for credit with topic change. S/U grading.

CM240. Introduction to Biomechanics. (4) (Same as Biomedical Engineering CM240.) Lecture, four hours; outside study, eight hours. Requisites: courses 102 (or Civil Engineering 108), 156A. Introduction to mechanical behavior of human body; skeletal adap- tations to optimize load transfer, mobility, and func- tion. Dynamics and kinematics. Fluid mechanics ap- plications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Corequisite: course 128B. Development and application of fundamental principles of fluid mechanics at graduate level, with emphasis on in- compressible flow. Flow kinematics, basic equations, constitutive relations, exact solutions on the Navier- Stokes equations, vorticity dynamics, decomposition of flow fields, potential flow. Letter grading.

250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fluid mechanics principles and fluid dynamics applied to study of fluid resistance. States of fluid motion discussed in order of advancing Reynolds number; wakes, boundary layers, instability, transi- tion, and turbulence. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Effects of compressibility in viscous and invisi- ble flows. Steady and unsteady inviscid and supersonic flows; method of characteristics; small disturbance theories (linearized and hypersonic); shock dynamics. Letter grading.

250D. Computational Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B, 182C, 250A. Introduction to useful methods for computation of aerodynamic flow fields. Coverage of potential, Euler, and Navier-Stokes equations for subsonic to hyper- sonic speeds. Letter grading.

250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requi- sites: courses 182A, 182B, 250A, 250C. Introduction to basic concepts and techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solv- ing unsteady three-dimensional Navier-Stokes equa- tions. Topics include spectral representation of func- tions, discrete Fourier transform, etc. Letter grading.

250F. Hypersonic and High-Temperature Gas Dy- namics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 250C. Molecular asymptotic analysis of equilibrium and non- equilibrium hypersonic and high-temperature gas flows, chemical thermodynamics and statistical ther- modynamics for calculation gas properties, equilibri- um and non-equilibrium theory of chemical reactions, nonequilibrium flows of real gases, and computational fluid dynamics methods for nonequilib- rium hypersonic flows. Letter grading.

252A. Stability of Fluid Motion. (4) Lecture, four hours; outside study, eight hours. Requisites: course 150A. Mechanisms by which laminar flows can be- come unstable and lead to turbulence of secondary motions. Linear stability theory; thermal, centrifugal, and shear instabilities; boundary layer instability. Non- linear aspects: sufficient criteria for stability, subcriti- cal instabilities, supercritical states, transition to tur- bulence. Letter grading.


252D. Combustion Rate Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 252C. Basic concepts in chemical kinetics: molecular collisions, distribution functions and aver- aging, semiempirical and ab initio potential surfaces, trajectory calculations, statistical reaction rate theo- ries. Practical examples of large-scale chain mecha- nisms from combustion chemistry of several ele- ments, etc. Letter grading.

253A. Advanced Engineering Acoustics. (4) Lecture, four hours; outside study, eight hours. Advanced studies in engineering acoustics, including three-di- mensional wave propagation; propagation in bounded media; Ray acoustics; attenuation mechanisms in flu- ids. 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 motion of spinning bodies. Letter grading.

255B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Requi- site: course 255A. Concepts of stability; state-space interpretation; stability determination by simulation, linearization, and Lapunov direct method; the Hamil- toinan as a Liapunov function; nonautonomous sys- tems; averaging and perturbation methods of nonlinear- ear analysis; parametric excitation and nonlinear reson- ance. Application to mechanical systems. Letter grading.

M256A. Mechanics of Deformable Solids. (4) (For- merly numbered 256A.) (Same as Civil Engineering M224A.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Development of fundamental principles and equations of solid me- chanics; Cartesian tensors; kinematics of large and small deformations; balance laws of mass, momen- tum, energy; constitutive equations for elasticity, thermoelasticity, and viscoelasticity for isotropic and anisotropic solids; solution of selected problems. Let- ter grading.

M256B. Elasticity. (4) (Same as Civil Engineering M230B.) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Solution of linear elastostatic problems using special techniques. Field equations of linear elastostatics; uniqueness of solu- tion; Betti-Rayleigh reciprocity relation; solution of two-dimensional problems using stress functions; stress concentration at holes and inclusions; complex variables and transform methods in elasticity; stress singularity at cracks and corners; stresses and strains in composites; three-dimensional problems — Kelvin, Boussinesq, and Courf problems, boundary integral equation method. Letter grading.

M256C. Plasticity. (4) (Same as Civil Engineering M230C.) Lecture, four hours; outside study, eight hours. Requisites: courses M256A, M256B. Classical rate-independent plasticity theory, yield functions, flow rules and thermodynamic potential; classical rate-de- pendent viscoplasticity, Perzyna and Duvant/Lions types of viscoplasticity. Thermoplasticity and creep. Return mapping algorithms for plasticity and visco- plasticity. Finite element implementations. Letter grading.

256F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 156A, 156B, or 166A, and Materials Science 243A. Review of modern fracture mechanics, ele- mentary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stiffened struc- tures, pressure vessels, plates, and shells. Letter grading.


259A. Seminar: Advanced Topics in Fluid Mechan- ics. (4) Seminar, four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation involving assign- ments and/or completion of research projects, written paper or oral presentation (possible help from guest lecturers). Letter grading.
259B. Seminar: Advanced Topics in Solid Mechanics. (4) Seminar, four hours; outside study, eight hours. Current interest in mechanical engineering. May be repeated for credit. S/U grading.

260. Current Topics in Mechanical Engineering. (2 to 4) Seminar; 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.


263A. Analytical Foundations of Motion Control Systems. (4) Lecture; four hours; outside study, eight hours. Requisite: course 156B. Recommended: course 166C. Theory of motion control for modern computer-controlled machines; multiaxis control systems for mechanical and aerospace systems. Subjects include: kinematics and dynamics of rigid-body motion, multibody dynamics, kinematic control, output feedback, and observer design. Letter grading.

263B. Spacecraft Dynamics. (4) Lecture; four hours; outside study, eight hours. Requisite: course 259B. Modeling, dynamics, and stability of spacecraft; spin and dual-spin spacecraft dynamics; spinup through resonance, spinning rocket dynamics; environmental torques in spin spacecraft dynamics; spinup through resonance, understanding of normal modes and frequencies. Letter grading.


M271. Stochastic Estimation. (4) Lecture; four hours; outside study, eight hours. Requisite: course 271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and risk estimators. Letter grading.


M273A. Robust Control System Analysis and Design. (4) Lecture; four hours; outside study, eight hours. Requisites: courses 171A, M270A. Graduate level introduction to analysis and design of multivariable control systems. Multivariable loop-shaping, performance requirements, model uncertainty representations, and robustness covered in detail from frequency domain perspective. Structured singular value and its application to controller synthesis. Letter grading.

M275A. System Identification. (4) Lecture; four hours; outside study, eight hours. Methods for identification of dynamic systems from input/output data, with emphasis on identification of discrete-time (digital) models of sampled-data systems. Introduction to continuous-time models. Models identified include transfer functions and state-space models. Examination of approximation and stability issues in mechanical and aerospace engineering, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and acoustic ducts. Letter grading.


M280. Microelectromechanical Systems (MEMS) Fabrication. (4) Same as Biomedical Engineering M265A and Electrical Engineering M265A.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course M180L. Advanced design considerations in micromachining processes used to construct MEMS. Coverage includes microfabrication, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual interfacial stress. Letter grading.

280L. Microelectromechanical Systems (MEMS) Laboratory. (4) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite: course 180. Hands-on micromachining. Mask layout, clean room procedure, lithography, oxidation, LPCVD coatings, evaporation, wet etchings (both isotropic and anisotropic), dry etchings, process monitoring. Students fabricate simple microelectromechanical devices by both surface and bulk micromachining and test and characterize them. Letter grading.

281. Microsciences. (4) Lecture; four hours; outside study, eight hours. Requisites: courses 131A, 150A. Basic science issues in micro and nanotechnology. Topics include micro fluid science, microscale heat transfer, mechanical 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 Biomedical Engineering M265B and Electrical Engineering M265B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course M280. Introduction to MEMS (MEMS) device design. Topics include design rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.
283. Experimental Mechanics for Microelectromechanical Systems (MEMS), (4) Lecture, four hours; outside study, eight hours. Requisites: M105A, 105D, 182A. Introduction to fundamental physical phenomena occurring at interfaces and application of their knowledge to engineering problems. Fundamental concepts of interfacial phenomena, including surface tension, surfactants, interfacial thermodynamics, interfacial forces, interfacial hydrodynamics, and interfacial dynamics. Presentation of various applications, including wetting, change of phase (boiling and condensation), forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.


288. Laser Microfabrication, (4) Lecture, four hours; outside study, eight hours. Requisites: Materials Science 14, Physics 17. Science and engineering of laser microfabrication of advanced materials, including semiconductors, metals, and insulators. Topics include fundamentals in laser interactions with advanced materials (e.g., photothermal, thermal, mass, chemical, carrier, etc.) in laser microfabrication, state-of-the-art optics and instrumentation for laser microfabrication, applications such as rapid prototyping, surface micromachining, microdevices for three-dimensional MEMS (microelectromechanical systems) and data storage, up-to-date research activities. Students term projects. Letter grading.

290. Nanoscale Fabrication, Characterization, and Biodetection, (4) Lecture, two hours; laboratory, two hours. Requisites: courses M180, M180L. Introduction to cutting-edge knowledge and laboratory techniques about nanoscale fabrication, characterization, and biodetection, including basic physical, chemical, and biological principles in nano-areas; top-down and bottom-up (self-assembly) fabrication; nanomaterials, sensors, circuits, and optical and electrochemical biosensors. Training provided in multidisciplinary areas of nanotechnology; students encouraged to create their own ideas in self-designed experiments. 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, composite curves and surfaces, computing methods for surface design and manufacture, and current research topics in computational geometry for CAD/CAM systems. Letter grading.


295B. Internet-Based Collaborative Design, (4) Lecture, four hours; outside study, eight hours. Preparation: Introduction to basic concepts and methodologies of molecular dynamics simulation. Exploration of advanced state-of-the-art concepts in Internet-based collaborative design, including software environments to connect designers and users, computer-aided design and analysis, virtual reality graphics environments such as high-end virtual reality systems, distributed real-time applications on shared computer resources, and development of applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.


296B. Thermochemical Processing of Materials, (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 183. Thermodynamics, heat and mass transfer, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, moving interfaces, and solidification. Control of microstructure and growth of microstructure, etc. Applications with chemical vapor deposition, infiltration, etc. Letter grading.


298. Seminar: Engineering, (2 to 4) Seminar, to be arranged. Limited to graduate mechanical and aerospace engineering students. Students may organize in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

M299A. Seminar: Systems, Dynamics, and Control Topics, (2) Same as Chemical Engineering M297 and Electrical Engineering M248S. Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading professionals in engineering and researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

375. Teaching Apprentice Practicum, (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

474C. Concurrent Engineering, (4) Lecture, four hours; outside study, eight hours. Requisite: Materials Science 474A. Product design, CAD/CAM, engineering analysis integration, project management. Letter grading.

474C. Total Quality Engineering, (4) Lecture, four hours; outside study, eight hours. Requisite: course 474B. Total quality management, statistics, probability, off-line quality control, online quality control, quality inspection. Letter grading.


478. Integrated Manufacturing Engineering (IME) Group Project Studies, (1 to 12) Lecture, one hour; group projects, one to 12 hours. Teams of students perform detailed analyses to address problems presented and implement manufacturing solutions within industrial settings. S/U grading.

497A-497B. Field Project in Manufacturing Engineering, (4-4) Lecture, two hours. Teams of students perform detailed system analysis and plan design of manufacturing engineering systems at various manufacturing plants. In Progress (497A) and S/U or letter (497B) grading.

596. Directed Individual or Tutorial Studies, (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition for permission to register 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. Reading and preparation for M.S. comprehensive examination. S/U grading.


**Medicine**

*David Geffen School of Medicine*

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**Medicine**

**Upper Division Courses**

M160A. Health Outreach and Education for At-Risk Populations. (4) (Formerly numbered 190A.) (Same as Public Health M160A.) Lecture, four hours; possible field observations. First in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Formerly numbered 190B.) (Same as Public Health M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

M186B. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Formerly numbered 186B.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 102 or Mathematics 115A. Introduction to dynamic system modeling, compartmental modeling, and computer simulation methods for studying biomedical systems. Basics of numerical simulation algorithms, translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Modeling software exploited for class assignments in PC laboratory. Letter grading.

190C. Health Outreach and Education to At-Risk Populations. (4) Discussion, two hours; fieldwork, six to eight hours. Requisites: courses 190A, 190B. Processes involved with designing, delivering, and assessing community educational programs. Under supervision of professional staff. P/NP or letter grading.

199. Special Studies. (2 to 8) Individual projects carried out under direction of a faculty member. Special studies in medicine with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students. P/NP or letter grading.

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**Graduate Courses**


M260A-M260B. Methodology in Clinical Research I, II. (4-4) (Same as Biostatistics M260A-M260B.) Lecture, four hours. Recommended preparation: M.D., Ph.D., or dental degree. Requisites: Biostatistics 170A, 264. 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.

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M260C. Methodology in Clinical Research III. (4) (Same as Biostatistics 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.

M262. Biostatistics. (4) (Same as Biostatistics M262.) Lecture, two hours; discussion, two hours. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biostatistics 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 and toxicology 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 Biomedical Engineering M270A and Computer Science M270B.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartamental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M270D. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biostatistics M270D, Biomedical Engineering M270B, and Computer Science M270B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Biostatistics 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.


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 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, medical microbiology, microbial genetics, 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.

Premicrobiology, Immunology, and Molecular Genetics Major

While students are completing the preparation courses for the major, they are classified as Premicrobiology, Immunology, and Molecular Genetics majors.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C– or better and 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 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, 1602A Molecular Sciences.

The Major

Required: Chemistry and Biochemistry 153A, Microbiology, Immunology, and Molecular Genetics 101, 101L, 185A; two laboratory courses from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102L, C120, 198C, 199B; one course from Microbiology, Immunology, and Molecular Genetics 102, C106, C159; and at least six upper division elective courses (22 units minimum) selected from the departmental list (available in the Students Affairs Office and at http://www.migm.ucla.edu). Sixteen of the 22 elective units must be departmental courses not already taken to fulfill a requirement.

All major courses must be taken for a letter grade of C– or better, with a minimum overall 2.0 grade-point average in the major.

Honors Program

Overall grade-point averages of 3.2 and 3.5 in the preparation for the major and major respectively are required to apply for departmental honors. In addition students must have junior standing and the sponsorship of a faculty adviser from the department. The core of the program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with departmental honors. The department also offers an honors seminar course each Winter Quarter that is required for the honors program. For further information, contact the Student Affairs Office, 1602A Molecular Sciences.
Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnnet.ucla.edu. 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

6. Introduction to Microbiology. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 101 or Life Sciences 2. Designed for nontechnical 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.

7. Developments in Biotechnology. (4) Lecture, three hours; demonstration/laboratory, one hour. Recommended preparation: course 8 or Life Sciences 2. Not open for credit to students with credit for course 101 or Life Sciences 3. Survey of recent developments in biotechnology, with emphasis on use of single-celled organisms. Review of basic principles of microbiology as they apply to biotechnology and examination of wide variety of topics, including alternate energy sources, pollution, cleanup, genetic fingerprinting, genetic engineering, and agricultural and food microbiology. P/NP or letter grading.

12. Biological Threats to Society: Bioterrorism and Emerging Infections. (4) Lecture, four hours. Examination of biological threats to American society. Coverage of bioweapons going back to first attempts to use microbes or toxins as weapons, and of emerging infections. Introduction to basic biology to understand infectious disease. P/NP or letter grading.

Upper Division Courses

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. Corequisite: course 101L. Historical foundations of the science; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

101L. Microbiology Laboratory. (3) Lecture, one hour: laboratory, five hours. Requisites: Life Sciences 3, 4. Corequisite: course 101 (or 101 with a grade of C– or better if previously taken). General laboratory techniques and theory in microbiology and molecular genetics, including isolation and identification of bacterial species from nature, transformation of Escherichia coli. Ames test, analysis of auxotrophic mutants. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 3 and 4, with grades of C– or better. Recommended corequisite: course 102L. Biological properties of bacterial and animal viruses; replication, methods of detection, interactions with host cells and multicellular hosts. Letter grading.

102L. Virology Laboratory. (2) Discussion, one hour; laboratory, four hours. Requisites: Life Sciences 3 and 4, with grades of C– or better. Corequisite: course 102 (or 102 with a grade of C– or better if previously taken). General laboratory techniques and theory in virology, including complementation, recombination, transduction, experiments in animal virology using tissue culture. Letter grading.


C107. Viral Pathogenesis. (2) Lecture, two hours; discussion, one hour three times per quarter. Requisite: course 185A. Strongly recommended: course 102, Chemistry 153B. Viral pathogens that infect mammals. Viral entry into and replication in host cells. Host response and host-virus interaction. Pathogenic manifestations exhibited during viral infections. Concurrently scheduled with course C207. Letter grading.

C120. Advanced Techniques in Microbiology. (4) (Formerly numbered 120.) Lecture, one hour; laboratory, six hours. Requisites: course 101L or 102L, with a grade of C or better. Introduction to current recombinant techniques. Experiments include pulse labeling, autoradiography, and other recombinant techniques. DNA binding recombinant protein is purified from Escherichia coli and its ability to bind to DNA studied using gelshift assay. Introduction to protein/protein interaction using yeast two-hybrid system and to tissue culture techniques and transfection and expression of genes for human light and heavy chain antibody. Concurrently scheduled with course C122. Letter grading.

CM122. Mouse Molecular Genetics. (2) (Same as Human Genetics CM122.) Lecture, two hours. Requisites: Life Sciences 3, 4. Emphasis on use of mouse genetic approach to studying fundamental biological questions. Topics include mouse genome and functional genomics, mutagenesis screening and cloning of disease genes, transgenesis and its application in developmental biology, stem cell biology, neurobiology, and modeling human genetic disorders. Reading materials include original papers and reviews. Concurrently scheduled with course CM222. P/NP or letter grading.


C133. Principles, Practices, and Policies in Biotechnology. (2) (Formerly numbered CM133.) Lecture, three hours. Requisites: Chemistry 153A and 153B, or Life Sciences 3 and 4, with grades of B or better. Designed for juniors/seniors. Life and physical sciences majors and students in the School of Law and Anderson Graduate School of Management may find course useful in career preparation. Presentation of technologies, regulatory practices, and policies required for product development and review of current emerging technologies. Topics include fermentation processes, pilot and large-scale bioprocess technologies, scaleup strategies, industrial recombinant DNA processes, hybridomas, protein engineering, peptide mimetics and rational drug design, medical and microscopic imaging, and intellectual property issues. Concurrently scheduled with course C233. P/NP or letter grading.

C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for a life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, consumers, institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrently scheduled with course C234. P/NP grading.

CM156. Human Genetics. (4) (Same as Human Genetics CM156 and Molecular, Cell, and Developmental Biology CM156.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: Molecular, Cell, and Developmental Biology 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

C159. Advanced Molecular Genetics. (5) Lecture, three hours; discussion, two hours. Requisites: Chemistry 153A, Life Sciences 4. Integrated conceptual analysis of classical and modern molecular genetics of microbes, with coverage of key papers from elucidation of genetics code to the present. Essential elements of experimental design, analysis of results, and scientific logic. Concurrently scheduled with course C259. Letter grading.

C168. Molecular Parasitology. (4) (Formerly numbered CM168.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4. Survey of parasitic protozoa not only as parasites which interact with a host, but also as model systems for analysis of basic biological phenomena such as gene regulation, molecular development, molecular evolution, and novel biochemical pathways. Concurrently scheduled with course C268. Letter grading.

C174. Advanced Topics in Molecular Parasitology. (2) (Formerly numbered Molecular, Cell, and Developmental Biology C174.) Lecture, two hours. Requisites: Life Sciences 3, 4. Examination of recent advances in molecular biology of parasites and host/parasite relationship. Specific topics include parasite development, antigenic variation in trypanosomes, RNA editing, prospects for parasitic vaccines. Concurrently scheduled with course C274. Letter grading.

CM176. Advanced Topics in Animal Virus/Host Interaction. (4) (Formerly numbered M176.) (Same as Molecular, Cell, and Developmental Biology C176.) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 3, 4. Recommended: course 102 or Chemistry 153B or Molecular, Cell, and Developmental Biology 144. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand virus/host interaction at level of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. Concurrently scheduled with course CM276. P/NP or letter grading.


Microbiology, Immunology, and Molecular Genetics / 431
Coursework includes a wide range of subjects related to Microbiology, Immunology, and Molecular Genetics. Courses such as Biochemistry, Molecular Biology, Microbiology, and Immunology are designed to provide a solid foundation in the field. Students are encouraged to take courses that align with their research interests and future career goals. Courses that focus on specific areas of inquiry, such as the genetics of microbial pathogenesis or the immunobiology of viral infections, are particularly popular. The curriculum is designed to foster critical thinking, problem-solving skills, and the ability to engage with current research literature. Students are encouraged to participate in research projects and seminars to enhance their learning experience. The interdisciplinary nature of the program allows students to explore the connections between different biological disciplines, preparing them for careers in academia, industry, or government laboratories.
MIDDLE EASTERN AND NORTH AFRICAN STUDIES

Interdepartmental Program
College of Letters and Science

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Claudia Rapp, D.Phl., Chair

Faculty Advisory Committee
Carol A. Bakhos, Ph.D. (Near Eastern Languages and Cultures)
Irene A. Bierman, Ph.D. (Art History)
Leonard Binder, Ph.D. (Political Science)
Michael D. Cooperson, Ph.D. (Near Eastern Languages and Cultures)
Osman M. Galal, M.D., Ph.D. (Community Health Sciences)
James L. Gelvin, Ph.D. (History)
Sondra Hale, Ph.D. (Anthropology, Women’s Studies)
Aziza Khazzoom, Ph.D. (Sociology)
Michael G. Morony, Ph.D. (History)
Claudia Rapp, D.Phl. (History)

Scope and Objectives

The undergraduate major is designed primarily for (1) students seeking a general education and desiring a special emphasis in this geographic area from the medieval to the modern period, (2) those who plan to live and work in the Middle East and North Africa whose careers can be aided by a knowledge of the peoples, languages, history, and institutions of the region, (3) those who seek background knowledge because they intend to work with people of Middle Eastern and North African heritage in the U.S., and (4) students preparing for academic study at the graduate level in the various disciplines pertaining to the Middle East and North Africa.

The Middle Eastern and North African Studies (MENAS) Program focuses on the history and culture of the region from circa 300 C.E. to the present day. It includes the study of the peoples with cultural and personal roots in the region, especially those who immigrated to the U.S. The program offers a B.A. degree and a minor in Middle Eastern and North African Studies and is by its nature defined as an area studies program with a regional focus.

The graduate major in this discipline is called Islamic Studies. For details, see the program by that name earlier in this section.

Undergraduate Study

Middle Eastern and North African Studies B.A.

Preparation for the Major

Required: The first-year course in Arabic, Armenian, Hebrew, Persian, or Turkish, or the equivalent level of proficiency as determined by admission into a second-year language course (other languages may be substituted by petition); History 9D; and three lower division courses (at least 12 units) with Middle Eastern or North African content selected from Anthropology 8, 9, Comparative Literature 1A, 1B, 1C, 1D, Economics 1, 2, Ethnomusicology 20B, 91L, 91N, Geography 3, History 20, 21, 22, Near Eastern Languages 50A, 50B, 50C, Political Science 20, 50, Sociology 1. Other courses may be substituted by petition, but only with advance approval.

To enter the major, students must be in good academic standing (minimum overall 2.0 grade-point average), have completed 45 units and the requirements for the Preparation for the Major, and attend a mandatory counseling session and file a petition with the academic counselor, 10375 Bunche Hall.

Transfer Students

Transfer applicants to the Middle Eastern and North African Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one course in Middle Eastern and North African history and three additional courses with relevant content (eligibility of courses to be determined at the introductory counseling meeting).

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: At least 11 upper division courses as follows: (1) three courses at the intermediate or advanced level or the equivalent in the Middle Eastern language taken in lower division, or the equivalent level of proficiency as determined by a departmentally administered examination, (2) History 105A, 105B, 105C, and (3) five elective courses, including courses in three different departments and two courses in a single department, to be selected from Anthropology 176, Art History 104A, 104B, C104C, 105E, Economics 110, 111, 112, 120, Ethnomusicology 161L and 161N (both must be taken to equal one 4-unit course), French 121, 160, Geography 135, 187, History, 108A, 116A, 116B, 164B, 164C, 167A, upper division Near Eastern Languages and Cultures nonlanguage courses, Political Science 132A, M132B, 157, 165, Sociology 187.

Students may petition for the following preapproved courses to fulfill upper division elective requirements for the major: (1) any one special
Molecular and Medical Pharmacology

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Harvey R. Herschman, Ph.D., Vice Chair

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Maria Castro, Ph.D.
Don H. Catlin, M.D.
Gautam Chaudhuri, M.D., Ph.D.
Simon R. Cherry, Ph.D.
Magnus Dahibom, Ph.D.
Roy Dounami, LL.D.
Jon M. Fukuto, Ph.D.
Bernard K-K. Fung, Ph.D.
Sanjay Gambhir, M.D., Ph.D.
Cameron B. Gunderson, Ph.D.
James R. Heath, Ph.D.
Harvey R. Herschman, Ph.D. (Crump Professor of Medical Engineering)
Edward J. Hoffman, Ph.D.
David A. Hovdis, Ph.D.
Sung-Cheng (Henry) Huang, D.Sc.
Louis J. Ignarro, Ph.D. (Jerome J. Belzer Professor of Medical Research)
Daniel L. Kaufman, Ph.D.
Barbara A. Levey, M.D.
Eddyie D. London, Ph.D.
Pedro Lowenstein, M.D., Ph.D.
Jamshid Maddahi, M.D.
John C. Mazzotta, M.D., Ph.D. (Frances Stark Professor of Neurology)
Richard W. Olsen, Ph.D.
Michael E. Phelps, Ph.D. (Norton Simon Professor of Biophysics)
Stephen Quake, Ph.D.
Osman Ratib, M.D.
Nagichettiar Satyamurthy, Ph.D.
Charles L. Sawyer, M.D. (Bing Professor of Urologic Research)
Heinrich R. Schelbert, M.D., Ph.D.
Christaann Schippers, M.D., Ph.D.
Liga Toro, Ph.D.
Peter Valk, M.D.
Owen N. Witte, M.D. (President's Professor of Developmental Immunology)

Professors Emeriti
Arthur K. Cho, Ph.D.
Donald J. Jenden, M.D., Ph.D.

Associate Professors
Samson A. Chow, Ph.D.
Johannes Czernin, M.D.
Sherrel G. Howard, Ph.D.
Harley Kolb, Ph.D.
Harley I. Kornblum, M.D., Ph.D.
Paul A. Krogstad, M.D.
William P. Melega, Ph.D.
Srinivasa Reddy, Ph.D.

Desmond Smith, M.D., Ph.D.
Jide Tian, M.D.
Joy A. Umback, Ph.D.
Anna Wu, Ph.D.
Christine Wu, Ph.D.
Hong Wu, M.D., Ph.D.

Assistant Professors
David B. Agus, M.D.
Martin Allen-Auerbach, M.D.
Arion Chatzizissiou, Ph.D.
Wei Chen, M.D., Ph.D.
Thomas Graebner, Ph.D.
Han Hua, Ph.D.
Jing Huang, Ph.D.
Meisheng Jiang, Ph.D.
Xin Liu, M.D., Ph.D.
Derek Maclean, Ph.D.
Ingo Mellingerhoff, M.D.
Jianghong Rao, Ph.D.
Marc Selzter, M.D.
Daniel H. Silverman, M.D., Ph.D.
Bangyan Styles, Ph.D.
Ren Sun, Ph.D.
Yi Sun, Ph.D.
Tatsushi Toyokuni, Ph.D.
Hsiang-Rong Tseng, Ph.D.
Wolfgang Webber, M.D.
Lily Wu, Ph.D.

Scope and Objectives
The Department of Molecular and Medical Pharmacology has basic and clinical components in which students have opportunities to develop intellectually and experimentally in basic biological sciences placed in the context of human disease. The department conducts integrative teaching and research programs that begin with molecular interactions and extend to studies of diseases and their treatment in humans. Departmental investigators study the biochemistry and pharmacology of drugs, gene expression and its regulation, signal transduction processes, cell-to-cell communication, viral replication and pathogenesis, autonomic diseases, neuronal development and plasticity, and integrated organ function. They use tools from the techniques of chemistry and structural biology, DNA microarrays, molecular and cellular biology, transgenic and chimeric mice, and cellular and organ imaging. Organic synthesis, genetic engineering, and imaging techniques such as confocal fluorescent and cryoelectron microscopy, autoradiography, and positron emission tomography (PET) are extensively employed. The imaging techniques are available in the Crump Institute for Molecular Imaging, Ahmanson Biological Imaging Clinic, and UCLA-DOE Laboratory of Structural Biology and Molecular Medicine, which are affiliated with the department. The goal of the education program is to provide faculty members and students the opportunity to examine the molecular and clinical bases of disease and the mechanisms of drugs in their treatment, as well as to visualize the changes in the disease state with procedures that monitor the molecular basis of cellular and organ function.

The graduate program seeks to prepare students for these interdisciplinary activities with a basic foundation in genetics, molecular and cellular biology, and pharmacology during their first year in residence. The second year is
Graduate Degrees

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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. The department also offers two M.D./Ph.D. programs concurrently with the 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) (Formerly numbered 110A.) (Same as Molecular Toxicology M110A.) Lecture, four hours (seven weeks); discussion, four hours (three weeks). Requisites: Life Sciences 2, 3. Course M110A is requisite to M110B. 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, 3. Introduction to pharmacology for undergraduate students, emphasizing principles underlying mechanism of action of drugs, their development, control, rational use, and misuse. Letter grading.

M191. Directed Research in Molecular and Medical Pharmacology. (2 to 8) Tutorial, 10 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Special studies in pharmacology, including either reading assignments or laboratory work or both, designed for proper training of students. Capping paper or project required. Individual contract required. P/NP or letter grading.

M200. Introduction to Laboratory Research. (4 to 6) Laboratory, eight to 16 or 20 hours. Individual projects in laboratory research for beginning graduate students. At end of each term students submit to their supervisor a report covering research performed. Pharmacology graduate students must take this course three times during their first two years in residency. S/U or letter grading.

M203. Principles of Pharmacology. (2) Lecture, zero to two hours; discussion, zero to two hours. Requisites: courses 211A, 211B, 218A. Survey of topics and course presentations designed to illustrate principles of pharmacology in clinical context, and solution of practical therapeutics by reference to pharmacokinetics, mechanisms of action, and disposition of drugs. S/U or letter grading.

M211A-211B. Principles of Pharmacology. (4-2) Lecture, three to eight hours; discussion, zero to nine hours. Preparation: mammalian physiology, biochemistry. Supplementation of topics covered in course 203. Primarily for graduate students. S/U or letter grading.


M237. Research Frontiers in Cellular and Molecular Pharmacology. (8) Lecture, 10 hours; laboratory, 30 hours total. Detailed examination of principles of pharmacology and mechanisms of drug action at organismal, tissue, cellular, and molecular levels, with emphasis on receptors, receptor-effector coupling, neurotransmitters, cardiovascular pharmacology, autonomic and central nervous system pharmacology. S/U or letter grading.


M248. Introduction to Biological Imaging. (4) (Same as Biomedical Engineering M248 and Biomedical Physics M248.) Lecture, three hours; laboratory, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.

M255. Biological Catalysis. (4) (Same as Biological Chemistry M255, Chemistry CM255, and Molecular, Cell, and Developmental Biology M255.) Requisites: Chemistry 110A, 153A, 153B. Life Sciences 2, Molecular, Cell, and Developmental Biology 100 or C139 or M140. Reaction mechanisms in molecular biology; experimental approaches for study of enzymes, including kinetics, isotopic labeling, stereoisomerism, chemical modification, and spectroscopy; design of pharmacologically active agents and artificial enzymes. Drug metabolism and interactions addressed on a mechanistic level. Letter grading.

M257. Introduction to Toxicology. (4) (Same as Pharmacology M257.) Requisite: course M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems. 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 are major targets of toxic and pathologic changes that are toxicant-induced and which are major targets of toxic and pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

M278. Advanced Topics in Animal Virus/Host Interaction. (4) (Same as Microbiology CM278 and Molecular, Cell, and Developmental Biology CM258.) Lecture, four hours; discussion, one hour. Recommended requisite: Chemistry 153B or Microbiology 102 or Molecular, Cell, and Developmental Biology 144. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand host-virus interaction at level of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. S/U or letter grading.

M287. Business of Science: Exploring Entrepreneurship. (2) Lecture, two hours. Limited to graduate students. Introduction to principles of business and entrepreneurship in technology sectors. Basic business skills and knowledge required to effectively perform in commercial environment and within academic environment that is increasingly involved in industry partnerships. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs. Significant aspects of identifying and evaluating new venture opportunities, development of financing, legal considerations, and entry and exit strategies presented and examined through critical discussion. Development of new venture feasibility analysis by students for product of their choice. S/U or letter grading.

M288. Gene Therapy. (4) Lecture, three hours; discussion, one hour. Preparation: Molecular, Cell, and Developmental Biology 102 or Molecular, Cell, and Developmental Biology 144. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understand host-virus interaction at level of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. S/U or letter grading.

M291. Special Topics in Pharmacology. (2 to 4) Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced Ph.D. candidates and faculty. S/U or letter grading.
MOLECULAR BIOLOGY
Interdepartmental Program
College of Letters and Science

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Sabbeha Merchant, Ph.D., Chair

Faculty Advisory Committee
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Guillaume F. Chanfreau, Ph.D. (Chemistry and Biochemistry)
Jau-Nian Chen, Ph.D. (Molecular, Cell, and Developmental Biology)
Christopher T. Denny, M.D. (Pediatrics)
Sabbeha Merchant, Ph.D. (Chemistry and Biochemistry)
Peter Tontonoz, M.D., Ph.D. (Pathology and Laboratory Medicine)
Geraldine A. Weinmaster, Ph.D. (Biological Chemistry)

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; developmental biology and neurobiology; nuclear 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://www.gdnet.ucla.edu. 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
297. Seminar: Molecular and Cellular Life Sciences. (2) In-depth surveys of recent developments in specific fields of life sciences research. By reading and presenting primary research articles, students learn to critically evaluate research papers and organize and present a seminar on a specific research topic. S/U or letter grading.

298. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on assigned topics. S/U grading.

Related Courses
The following courses offered by the departments listed are particularly appropriate to the research areas mentioned above. With the approval of the guidance committee or research supervisor, other related courses may be included in the program.

Biological Chemistry
CM248. Molecular Genetics
251A-251B-251C. Seminars: Transcriptional Regulation
CM253. Macromolecular Structure
M263. Metabolism and Its Regulation
M266A-M266B-M266C. Seminars: Molecular Embryology
CM267A. Cell Biology
CM267B. Cell Biology Seminar
Chemistry and Biochemistry
M230B. Structural Molecular Biology
M230D. Structural Molecular Biology Laboratory
CM253. Macromolecular Structure
256A-256V. Seminars: Research in Biochemistry
CM260. Bioinformatics and Genomics
M263. Metabolism and Its Regulation
M267A. Cell Biology
M267B. Cell Biology Seminar

Human Genetics
CM248. Molecular Genetics
CM253. Macromolecular Structure
CM267A. Cell Biology
M267B. Cell Biology Seminar

Microbiology, Immunology, and Molecular Genetics
M229. Cellular Biology of Host/Pathogen Interactions
242. Seminar: Microbial Molecular Genetics

CM248. Molecular Genetics
250. Seminar: Microbial Metabolism
CM256. Human Genetics
M261. Molecular and Cellular Immunology
Molecular, Cell, and Developmental Biology
CM223A. Cell Biology
M223B. Cell Biology Seminar
M229. Cellular Biology of Host/Pathogen Interactions
M230B. Structural Molecular Biology
M230C. Structural Molecular Biology Laboratory
CM248. Molecular Genetics
CM256. Human Genetics
CM261. Molecular and Cellular Immunology
M266A-M266B-M266C. Seminars: Molecular Embryology

MOLECULAR, CELL,
AND DEVELOPMENTAL
BIOLOGY
College of Letters and Science

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Utpal Banerjee, Ph.D., Chair

Professors
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Volker Hartenstein, Ph.D.
Ann M. Hirsh, Ph.D.
Luisa M. Iruela-Arispe, Ph.D.
Steven E. Jacobsen, Ph.D.
Harumi Kasamatsu, Ph.D.
James A. Lake, Ph.D.
Shuo Lin, Ph.D.
John R. Merriam, Ph.D.
Elaine M. Tobin, Ph.D.

Professors Emeriti
William R. Clark, Ph.D.
John H. Fessler, Ph.D.
Bernard O. Phinney
Winston A. Saiser, Ph.D.
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Elaine M. Tobin, Ph.D.

Associate Professors
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Chentao Lin, Ph.D.
Karen M. Lyons, Ph.D.
Paul H. O'Lague, Ph.D.

Assistant Professors
Jau-Nian Chen, Ph.D.
Sioux K. Christensen, Ph.D.

Lecturer
Roger E. Bohman, Ph.D.

Adjunct Professors
Lutz Birnbaumer, Ph.D.
Kenneth A. Feldman, Ph.D.
Richard B. Flavell, Ph.D.

Adjunct Associate Professor
Jeanne L. Perry, Ph.D.
Adjunct Assistant Professor
Roger I. Pennell, 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 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 Plant Technology B.S. degree is designed to prepare students for careers in biotechnology; students are trained in plant biology as well as in concepts and techniques in molecular biology. The M.A. and Ph.D. degrees provide opportunities for advanced concentrated study and require independent and innovative research that ultimately results in publishable thesis and 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: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

All core curriculum courses must be passed with a grade of C– or better and 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 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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required Courses: Chemistry and Biochemistry 153A, 153L, Molecular, Cell, and Developmental Biology 100 or C139 or M140 or 165A, 104, 138 or C141, 144.

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 192A, 192B, or 199, is acceptable. The following courses outside the department may be taken to satisfy a maximum of 10 units in this category: Biological Chemistry CM153G, Biomatics 160 or Statistics 100A, Chemistry and Biochemistry 153C, 156, C159A, C159B, C160, Ecology and Evolutionary Biology 110, 121, 146, 157, 162, Life Sciences 100HA or 100HB or 100HC, Microbiology, Immunology, and Molecular Genetics 101, 102, C106, C159, C168, C174, 185A, Physiological Science C126, 166.

Laboratory: At least 4 units of upper division laboratory experience selected from Chemistry and Biochemistry 154, Ecology and Evolutionary Biology M158, 162, Life Sciences 100HA or 100HB or 100HC, Microbiology, Immunology, and Molecular Genetics 101 and 101L (both courses must be taken), 102 and 102L (both courses must be taken), Molecular, Cell, and Developmental Biology 120, 155, 198A through 198D, 199, 199A through 199D, Physiological Science 166.

A maximum of 12 units of Molecular, Cell, and Developmental Biology 198A through 198D or 199A through 199D and no more than one course from 199 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).

Courses 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.

Plant Biotechnology B.S.

The Plant Biotechnology major is designed to prepare students for careers in biotechnology or for entrance into graduate school. Industries, particularly those that have traditionally dealt with agricultural products, are increasingly turning to biotechnology to improve the production as well as the nutritional value of food. These emerging industries are also developing products to lessen the dependence on nonrenewable resources and to restore soil and water quality. Students are trained in plant biology as well as in concepts and techniques in molecular biology. These skills should enable students who successfully complete the curriculum to find challenging careers in the diverse biotechnology arena, academics, industry, or government.

Preparation for the Major

Life Sciences Core Curriculum

Required: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; Statistics 13.

All core curriculum courses must be passed with a grade of C– or better and 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 to the Plant Biotechnology 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.

The Major

Required: A minimum of 10 courses as follows:

Group 1: Chemistry and Biochemistry C160, Ecology and Evolutionary Biology 162, Molecular, Cell, and Developmental Biology 104,
120, C141 or C150, and 4 units of plant biology laboratory internship (Molecular, Cell, and Developmental Biology 198A and 198B, or 199, or 199A and 199B).

Group 2: Four additional courses selected from Chemical Engineering C115, C125, Chemistry and Biochemistry 110A, 156, Ecology and Evolutionary Biology 121 or Molecular, Cell, and Developmental Biology 144, Microbiology, Immunology, and Molecular Genetics 101 and 101L (counts as one course), 102 and 102L (counts as one course), C120, C133 (counts as a half course), and any courses in Group 1 not applied toward Group 1.

Courses 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 and Plant Biotechnology 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; those intending to pursue highest honors must have faculty sponsorship from within the department.

For further information and application forms, students should consult the Student Affairs Office, 212B Life Sciences, 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 undergraduate seminar selected from Molecular, Cell, and Developmental Biology C174A through C174D 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, (2) research sponsorship from a faculty adviser within the department, and (3) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology and Plant Biotechnology 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 M186B 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://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Molecular, Cell, and Developmental Biology.

Molecular, Cell, and Developmental Biology

Lower Division Courses

30. Biology of Cancer. (5) Lecture, five and one-half hours; experiential service learning, 30 minutes. Introduction to molecular, cellular, and clinical aspects of cancer and consideration of sociological and psychological impacts of cancer on the individual and society. P/NP or letter grading.

40. AIDS and Other Sexually Transmitted Diseases. (5) Lecture, five and one-half hours; experiential service learning, 30 minutes. Introduction to interdisciplinary debate surrounding the personal and societal response to AIDS and other sexually transmitted diseases. P/NP or letter grading.

70. Genetic Engineering and Society. (4) Lecture, three hours; discussion, two hours. Designed for non-majors. Not open to students with credit for Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering techniques and relations between genetic engineering to medicine, agriculture, and society. Emphasis on specific genetic engineering applications to generate discussion on its use in society.

80. The Green World: Plant Biology for Now and the 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 and nutritionally depleted soils, and "biological factories" to produce biodegradable plastics, antibodies, and other commodities. Underexploited agriculture crops also featured. P/NP or letter grading.

M88H. Lower Division Seminar: Limits of Biological Design through Physical Principles. (4) (Same as Physics M88.) Seminar, three hours. Enforced prerequisites: Chemistry 20A, 20B, Life Sciences 1, 3, Mathematics 3A, 3B, and 3C or 31A, 31B, and 32A. Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 6A, 6B, and 6C. Specific examples of diverse biological design such as scaling of metabolic activity, bone and muscle mass, cell size, cell membranes and pumps, heart and blood circulation, swim bladders, insect vision, magnetic bacteria, etc., studied quantitatively using elementary mathematics and physical principles. P/NP or letter grading.

97A. PEERS Seminars: Careers in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of seminars and workshops to acquaint students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to graduates with science degrees. P/NP grading.

Upper Division Courses


104. Cell and Molecular Biology Laboratory. (6) Lecture, 90 minutes; discussion, one hour; laboratory, eight hours. Requisites: Life Sciences 3, 4, Introduction to plant biology, as well as to concepts and techniques in molecular biology and genetics. Students gain hands-on experience in laboratory section in doing experiments and hone their powers of observation. May not be repeated for credit. Letter grading.

120. Introduction to Plant Biology. (6) Lecture, 90 minutes; discussion, one hour; laboratory, eight hours. Requisites: Life Sciences 3, 4, Introduction to plant biology. Letter grading.

120L. Introduction to Plant Biology Laboratory. (4) Laboratory, four hours. Enforced prerequisites: Life Sciences 3, 4. Enforced corequisite: course 120. Introduction to plant biology laboratory to give students hands-on experience doing experiments and making their own observations about plant biology. Letter grading.


C139. Cell, Developmental, and Molecular Neurobiology. (6) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. Concurrently scheduled with course CM220. Letter grading.
M140. Cell Biology: Cell Cycle. (5) (Same as Biological Chemistry M140.) Lecture, four hours; discussion, one hour. Requisites: Chemistry 151A, 151B, and 14BL, or 20A, 20B, and 20L, Life Sciences 3, 4. Not open for credit to students with credit for courses 165A and 165B. Satisfies premedical requirements. Eukaryotic cellular structures and biogenesis at the 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. Cytoplasmic compo-
nents and cell-adhesion. Letter grading.

C141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4. In-depth study of role of plant hormones in development and behavior of plants by using a mechanistic level, Biochemical and genetic analysis of cell cycle, signal transduction, and their involvement in development and cancer. Protein sorting and transport across cell membranes. Cytoplasmic components and cell-adhesion. Letter grading.


143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; dis-

150. Plant Chemical and Molecular Communication. (4) Lecture, three hours; discussion, one hour. Preparation: completion of life sciences core curriculum. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/microbe, plant/herbivore, and plant/herbivore-plant interactions. Nuclear-cytoplasmic exchange, DNA replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcrip-
tion, translation, and transport; cell cycle and cancer. Study of advanced specialized topics to allow integrated approach to molecular cell biology. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to current literature that directly relates to information examined in lectures. Letter grading.

156B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, one hour. Requisites: course 165A, Chemistry 14 or 20 series, Life Sciences 3, 4. Molecular biology of eukaryotic cell nucleus, with focus on structure, organization, replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcription, translation, and transport; cell cycle and cancer. Study of advanced specialized topics to allow integrated approach to molecular cell biology. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to current literature that directly relates to information examined in lectures. Letter grading.


M170. Biochemistry and Molecular Biology of Photosynthesis: (Same as Chemistry CM170.) Lecture, two to three hours; dis-
cussion, zero to two hours. Requisites: Chemistry 153A and 153B, or Life Sciences 3 and Chemistry 153L. Recommended: Chemistry 153C, 154, Life Sciences 4. Light harvesting, photochemistry, electron transfer, carbon fixation, carbohydrate metabolism, pigment synthesis in chloroplasts and bacteria. As-
sembly of photosynthetic membranes and regulation of genes encoding those components. Emphasis on understanding of experimental approaches. P/NP or letter grading.

171. Principles of Neurobiology. (4) Lecture, three hours; discussion, one hour. Principles of neurobiology: structure and function of neurons and nervous systems; synaptic mechanisms responsible for generating membrane potentials, action potentials, and synaptic potentials; properties of synaptic transmission, information trans-
duction and coding in sensory pathways, and neural control of movement; development of and trophic interactions between cells of nervous system.

C174A-C174D. Advanced Topics in Animal Virus/Host Interaction. (2) Requisites: courses 100 or C139 or M140. Application of genetic principles in hu-
mam populations, with emphasis on cytogenetics, bio-
chemical genetics, population genetics, and familial studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM256. Letter grading.

156A. Biology of Cells. (5) (Formerly numbered 165.) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14 or 20 series, Life Sciences 3, 4. Fundamental principles of cell biol-

cy, and its complex interaction with host. Concurrently scheduled with course CM279. Letter grading.

C174D. Molecular Biology of Extracellular Matrix. (2) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144. Life Sciences 4. Recommended: course 138. Synthesis of key extracellular matrix pro-
teins and their assembly into supramolecular struc-

M175A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requi-
sites: Chemistry 14 or 30A (14C may be taken concurrent-
ly), Life Sciences 2, Physics 1B or 8B. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C– or better is required to proceed to Physiological 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.

M175B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requi-
sites: course M175A (or Neuroscience M101A or Neurobiology and Behavior M117A) or Physical Science 111A or Psychology 115, Life Sciences 3, 4. Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of sup-

molecular mechanisms: synaptic transmission, axo-


192A. Undergraduate Practicum: CityLab. (2) (Formerly numbered 193B.) 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. 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. Corequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth understanding of and ability to discuss current literature in field of students' own research. P/NP grading.

194A. Research Group Seminars: Molecular, Cell, and Developmental Biology. (1 Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Involvement in laboratory's weekly research group meeting to encourage student participation in research and to stimulate progress in specific research areas. Discussion of use of specific research methods and current literature in field of or research of faculty members or P/NP or letter grading.

194B. Research Group Seminars: Current Topics in Biomedical Sciences. (2 Formerly numbered 194A.) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of paper selected from current literature. May be repeated for credit. Letter grading.

198. Research Topics in Molecular, Cell, and Developmental Biology. (1 Seminar, two hours. Limited to Molecular, Cell, and Developmental Biology majors who are concurrently enrolled in molecular, cell, and developmental biology research courses with departmental faculty members. Study and analysis of current topics in molecular, cell, and developmental biology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated once for credit. Letter grading.

199A-199B-199C. Research Topics in Molecular, Cell, and Developmental Biology. (1-1-1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199A or 199B, Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, cell, and developmental biology. May be taken for at least three terms and for a total of at least 12 units. Individual contract required. Letter grading.

199A-199B-199D. Honors Research in Molecular, Cell, and Developmental Biology. (4 each) (Formerly numbered 190HA-190HD.) Tutorial, 16 hours. Requisite: course 104. 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 student's knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for a total of at least 12 units. Individual contract required. Letter grading.

199A-199B-199D. Directed Research in Molecular, Cell, and Developmental Biology. (2 to 16) (Formerly numbered 190A-190D.) Directed Research under guidance of major. Requisite: course 104, Life Sciences 3, 4. Course 199A is requisite to 199B, which is requisite to 199C, which is requisite to 199D. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only for research projects in laboratories with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Culminating research project designed to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. In Progress (199A) and letter (199B) grading. Students may elect to enroll in additional research through courses 199C and 199D (letter grading). Report on progress must be presented to department each term a 199A through 199D course is taken.

199A-199D. Directed Research in Molecular, Cell, and Developmental Biology. (2 to 16) (Formerly numbered 190A-190D.) Tutorial, 12 hours. Preparation to be for approval by appropriate term deadline. Proposal to be developed in consultation with instructor, outlining research study to be undertaken. Requisite: course 104, Life Sciences 3, 4. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Studies to involve laboratory research, literature surveys or library research. At end of term culminating paper describing progress of project and signed by student and instructor must be presented to department. Individual contract required. Letter grading.


222A-C222D. Advanced Topics in Cell and Molecular Biology. (2 each) (Formerly numbered C222A-C222D.) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Recent developments in fields of molecular, cell, and developmental biology. May be repeated with different sponsors. Concurrently scheduled with courses C174A-C174D. Letter grading.

222A. Molecular Evolution. (2) Lecture, two hours. Requisites: courses 100 or C139 or M140, 144, Life Sciences 4. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neureogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Concurrently scheduled with course C139. Letter grading.

224. Molecular Basis of Vascular Biology. (4) Lecture, four hours. Requisites: Life Sciences 3, 4. Developments in molecular biology. Presentation and discussion of key questions of vascular biology with mechanistic viewpoint. Major emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.


M230B. Structural Molecular Biology. (4) (Same as Chemistry M230B.) Lecture, three hours; discussion, one hour. Requisite: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure: structure and function of proteins and nucleic acids; chemical and physical properties of macromolecules; and processes involving macromolecules. Letter grading.

M230D. Structural Molecular Biology Laboratory. (2) (Same as Chemistry M230D.) Laboratory, 10 hours. Concurrent with 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.) Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

C239. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1, 3, 4. In-depth study of basic processes of growth differentiation and development in plant cells and molecular mechanisms underlying these processes. Discussion of a variety of plant systems, with focus on developing critical understanding of current experimental basis of research in this field. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to other coursework, required of graduate students. Letter grading.

M240. Cytokines and Reproductive Biology. (2) (Same as Microbiology M240.) Lecture, 90 minutes; discussion, one hour. Overview of current progress on cytokines and other immune system molecules in reproductive biology. S/U or letter grading.

242. Topics in Neurobiology. (4) Lecture, three hours. Requisite: course 171. Selected current problems in neurobiology discussed in depth, with emphasis on analysis of original papers. May be repeated for credit.


CM250. Plant Chemical and Molecular Communication. (4) Lecture, three hours; discussion, one hour. Development of advanced research techniques and recent advances in plant chemistry and biochemistry. Emphasis on specific plant chemical families. Letter grading.

CM252. Biological Catalysis. (4) (Same as Biological Chemistry M252S, Chemistry CM252S, and Pharmacology M252S.) Lecture, four hours; discussion, one hour. Enzymes and other active structural macromolecules — their synthesis, structure, and roles in cellular function. Letter grading.

CM256. Human Genetics. (4) (Same as Human Genetics CM256 and Microbiology CM256.) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 3, 4. Strongly recommended: course 100 or C139 or M140. Application of genetic principles in human populations, with emphasis on cytogenetics, biochemical genetics, population genetics, and family studies. Lectures and readings in the literature, with focus on current questions in the fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. Letter grading.

CM258. Advanced Topics in Animal Virus/Host Interaction. (4) (Same as Microbiology CM276 and Pharmacology M276.) Lecture, four hours; discussion, one hour. Requisite: course 144 or Chemistry 153B or Microbiology 102. Recent developments in fields of interaction of hosts with animal viruses. Emphasis on molecular and cellular approaches to understanding levels of entry, replication, assembly, and morphogenesis, as well as host defense and viral pathogenesis. Concurrently scheduled with course CM176. S/U or letter grading.

CM261. Molecular and Cellular Immunology. (6) (Same as Microbiology M261.) Lecture, four and one-half hours; discussion, 90 minutes. Requisite: Biological Chemistry CM253S. Comprehensive course for graduate students and selected undergraduate students covering fundamentals and recent advances in molecular and cellular immunology. Lectures supplemented with discussions of primary research articles. Oral presentation and analysis of primary research articles. Concurrently scheduled with course C180. Oral presentation required of graduate students. S/U or letter grading.

M266A-M266B-M266C. Seminars: Molecular Embryology. (2-3-2) (Same as Biological Chemistry M266A-M266B-M266C.) Advanced course in developmental genetics and biochemistry, with emphasis on early development. Intended mostly for students actively working or highly interested in embryology. S/U grading.

276. Seminar: Molecular Genetics. (2) Topics vary each term.


278. Seminar: Molecular Genetics of Development. (2) Designed for graduate students. Topics vary from year to year, with focus on establishment of position and pattern during embryogenesis by interaction of signal transduction systems and transcription factors. S/U or letter grading.

CM279. Molecular Biology of Animal Viruses. (4) (Same as Microbiology M238.) Lecture, three hours. Preparation: courses in general biochemistry and general microbiology, including virology. Recommended for advanced undergraduate students with a major in public health, biology, or microbiology and for graduate students with interest in any field of biology or chemistry. Overview of animal viruses, including viral structure, virus cell interaction, virus replication, and viral oncogenesis. Special emphasis on understanding the molecular mechanism involved in control and regulation of replication, transcription, and translation of viral genome and its complex interaction with host. Concurrently scheduled with course C177. Letter grading.


283. Seminar: Topics in Cell Biology. (2) Discussion of various topics on biology of eukaryotic cells. Topics change from year to year and cover subjects such as energy metabolism, motility, organelle DNA, membrane structure and function, oncogenic transformation, nuclear organization, and genetics.

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 cellular function. Letter grading.

286. Seminar: Plant Development. (2) Seminar, one hour; discussion, two hours. Preparation: one plant physiology course and at least one advanced undergraduate or graduate plant development or biochemistry course. Seminar on specific topics in plant development. Content varies each term. S/U grading.

289. Current Topics in Plant Molecular Biology. (2) Discussion, one hour. Recent research developments in the field of plant molecular biology. Opportunities for graduate students to discuss individual research work. S/U grading.

292. Seminar: Molecular Evolution. (2) Discussion, three hours. Detailed analysis of current understanding of evolution of molecular sequences and structures.

295. Seminar: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. In-depth surveys of recent developments in molecular, cell, and developmental biology research. Reading and presentation of primary research articles to learn to critically evaluate research papers and to organize and present seminars on specific research topics. S/U or letter grading.

296. Advanced Topics in Molecular, Cellular, and Developmental Biology. (2) Discussion, three hours. Advanced study and analysis of current topics in cell, molecular, and developmental biology. Discussion of current research and literature in research specialties of faculty member teaching course. S/U grading.

297. Advances in Molecular Analysis of Plant Development and Plant/Microbe Interactions. (2) Recent advances in plant molecular biology, with emphasis on control of gene expression both during plant development and in plant/microbe interactions. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice/ship under active guidance and supervision of regular faculty member, including preparation and counseling on curriculum and instruction at the University. May be repeated for credit. S/U grading.
physiological questions across several levels of organization and to understand how research strategies incorporating each of the levels of analysis can be formulated. This approach to physiology education is responsive to the need for physiologists who can intellectually and technically span disciplines related to physiology that are typically separated.

Coursework consists of formal instruction in the most current information in molecular biology, cell biology, and the molecular and cellular foundations of physiology. In addition, students identify an area of emphasis in biophysics, cellular and molecular biology, or integrative/comparative physiology in which additional studies are pursued. The heart of the program, however, is the research that leads to the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 60 professors in the David 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://www.gdnet.ucla.edu. 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.

Scope and Objectives

Physiology is the study of the functional processes that collectively constitute life. The studies usually employ quantitative analyses of normal life processes, of pathological defects in normal life processes, of model systems to clarify and test basic physiological principles, and of functional specializations of organisms that have evolved under the influence of differing selective forces. Thus, physiology contributes importantly to advances in knowledge both in the basic biological sciences and in biomedical sciences and provides an essential foundation for the practice of medicine.

The primary objective of the interdepartmental Molecular, Cellular, and Integrative Physiology Program is to train a new generation of physiologists who apply modern knowledge in molecular and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize molecular and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize...
cigenesis, and environmental toxicology. There is a particular emphasis on mechanisms of toxicity, since it is now widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that society has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicology, which seeks to characterize and elucidate the mechanisms of the problems related to exposure of chemical agents, has also developed from a purely descriptive to a mechanistic science whose objective is to understand the basis of toxicity action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

**Graduate Study**

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.

199. Special Studies. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study. Limited to seniors. Individual undergraduate guided studies under direct faculty supervision. Study to be structured by instructor and student at time of initial enrollment. Only 4 units may be taken each term. 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. (6) (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. (4) (Same as Environmental Health Sciences M242.) Lecture, two hours; discussion, two hours. Requisite: Environmental Health Sciences 240. Examination of biochemical, cellular, and molecular mechanisms by which chemicals induce toxicity in wide spectrum of organ systems and in number of pathological conditions. Letter grading.

M245. Laboratory in Toxicological Methods. (2) (Same as Environmental Health Sciences M246 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.

296A-296F. Research Topics in Molecular Toxicology. (2 to 12 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.

296B. Molecular Carcinogenesis.

296C. Teratogenesis.

296D. Molecular Topics in Boron Biology.

296E. Germ Cell Cytogenetics/Genetic Biomarkers.

296F. Genetic Toxicology.

556. 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. Letter grading.

557. 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 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.

Moving Image Archive Studies

Interdepartmental Program Graduate School of Education and Information Studies and School of Theater, Film, and Television

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Martha Yee

Scope and Objectives

The Moving Image Archive Studies M.A. is an interdepartmental degree program hosted by the Information Studies Department, Film, Television, and Digital Media Department, and UCLA Film and Television Archive. The program is an intensive, specialized two-year course of study consisting of graduate seminars, directed studies, and an extensive internship program, as well as special topic screenings, guest lectures, and technical demonstrations.

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. Graduate seminars, directed studies, and internships are taught by a unique combination of UCLA faculty members, academic scholars, top-level preservationists, technical experts, and other archive specialists, supplemented by guest lecturers from outside the University.

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 inseparability of preservation from access, for example, is now well established both within modern archival practice and scholarly research, as is the promise of new digital technologies for both restoration and documentation purposes. As such, the program encourages familiarity with all these closely related archival functions and provides opportunities for specialization within them. The general orientation of the program also recognizes the realities of a field that includes both large, national-level archives with a specialized staff as well as one- or two-person operations with local and regional mandates. It recognizes, for example, that the contemporary archival field is challenged by issues across the entire range of possible moving image collections from classical, feature-length, and commercial narrative fiction films to experimental, alternative format, independent, and/or personal productions.

A key goal is to link theory with practice. The program embraces hands-on activities in the UCLA Film and Television Archive and internships in the Los Angeles area at other ar-
chives, libraries, studios, and laboratories. The program also utilizes the superb facilities at the Film and Television Archive, the Film, Television, and Digital Media Department, and the Information Studies Department.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, 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 development of moving image archives. Critical analysis of archival policies regarding collection development, access, exhibition, cataloging, preservation, and restoration. Introduction to principle models and methodologies of moving image archive practices from 1938 establishment of International Federation of Film Archives to the present, addressing practices such as collection development of classical, national, regional, and nonmainstream 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 practice. S/U, letter grading.

210. Moving Image Preservation and Restoration. (6) 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 irresolvable formats. Examination 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 facing restorers. 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 relationship 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, aspect ratios, film stocks, and projection systems, exploration of larger economic and industrial forces behind them. Study of aesthetic consequences of specific production and exhibition innovations by examining different types of images, genres, and narratives that accompany and influence passage of new technologies. S/U or letter grading.

230. Moving Image Cataloging. (4) Seminar, four hours. Introduction to methodologies and standards specific to moving image cataloging. Discussion and debate of continued application of Library of Congress subject headings and genres to cataloged moving image materials. Exposure to variety of indexing languages used today within online environments and practical training in application of cataloging principles to motion pictures and television programs. Survey of general theories and alternate documentation practices at work within field as well as specific cataloging rules established by FIAF 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. S/U or letter grading.

240. Collection Development. (4) Seminar, four hours. Analysis of collection development policies for moving image archives and their relationship to archival practices from cataloging to preservation and access. Day-to-day operation of archives involves complex set of interrelated activities, including collection identification and selection; conservation and storage; budget planning and grant writing, staff training, and supervision; and donations, deposit agreements, and application of copyright law. Exploration of these essential tasks and their implications for archives through case studies of moving image archives with distinct collection types, ranging from 35mm narrative to small-format video and digital media. 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.

498. Individual Directed Studies: Practicum in Moving Image Archiving. (2 to 8) Tutorial, 12 hours. Hands-on experience at entry professional level in archiving, library, information center, or media laboratory supervised by one archivist or other appropriately qualified professional and one program faculty member. S/U grading.

596. Directed Individual Study or Research. (2 to 6) Tutorial, four hours. Study or research in areas of subjects not offered as regular courses. S/U or letter grading.

Related Course List

Film and Television (Film, Television, and Digital Media)

200. Bibliography and Methods of Research in Film and Television
203. Seminar: Film and Other Arts
206A. Seminar: European Film History
206C. Seminar: American Film History
207. Seminar: Experimental Film
208C. Seminar: Contemporary Film Theory
209A. Seminar: Documentary Film
209B. Seminar: Fictional Film
209D. Seminar: Animated Film
210. Seminar: Contemporary Broadcast Media
211A. Seminar: Historiography
217A. Seminar: American Television History
217B. Seminar: Selected Topics in Television History
218. Seminar: Culture, Media, and Society
219. Seminar: Film and Society
220. Seminar: Television and Society
221. Seminar: Film Authors
222. Seminar: Film Genres
224. Computer Applications for Film Study
246. Issues in Electronic Culture
270. Seminar: Film Criticism
271. Seminar: Television Criticism
276. Seminar: Non-Western Films
277. Seminar: Narrative Studies
498. Professional Internship in Film and Television

Information Studies

200. Information in Society
203. Seminar: Intellectual Freedom and Information Policy Issues
225. Latin American Research Resources
228. Measurement and Evaluation of Information Systems and Services
229B. Africana Bibliography and Research Methods
240. Management of Digital Records
245. Information Access
246. Information-Seeking Behavior
260. Information Structures
270. Introduction to Information Technology
275. Development of Cultural Information Sources Using Digital Multimedia
276. Information Retrieval Systems: Structures and Algorithms
280. Social Science Research Methodology for Information Studies
281. Historical Methodology of Information Studies
282. Principles of Information Systems Analysis and Design
410. Management Theory and Practice for Information Professionals
431. American Archives and Manuscripts
432. Issues and Problems in Preservation of Heritage Materials
438A. Seminar: Advanced Issues in Archival Science — Archival Appraisal
438B. Seminar: Advanced Issues in Archival Science — Archival Description and Access Systems
461. Descriptive Cataloging
462. Subject Cataloging and Classification
463. Indexing and Thesaurus Construction
464. Metadata
498. Internship

MUSIC

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Ian Krouse, D.M.A., Chair
The Major

Required (for all concentrations): Music 120A, 120B, 120C, Music History 126A, 126B, 126C, and courses selected from one of the concentrations listed below.

Composition: A minimum of 65 upper division units, including Music 104A or 104B, 106A, 106B, 116, 120A, 120B, 120C (accelerated sections), 123A, 123B, 123C, 124A or 124B or 124C, C176, and at least 8 elective units selected from courses 104A or 104B (if not already taken), 117, 118A, 118B, additional terms of 123A, 123B, 123C, 124A or 124B or 124C (if not already taken), 197, Ethnomusicology 117, C136A, C136B, C146, C156A, 156B, 157, 158A, 158B, 158C, 160, 170, 181. A senior recital, to include at least 30 minutes of original music, is also required (exceptions by petition only).

Music Education: A minimum of 36 upper division units, including Music 100A, 100B, 100C, 110, 111A, 111B, 114A, 114B, 114C, 114D and 114F or 119, 114E, 114G through 114J, 116, 117, and three courses from 160A through 165. A senior recital is 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); 4 units of elective courses from 106B, 116, 117, 118A, 118B, 197, Music History 130, 133, 133A, 135B, 135C, 139, 191A through 191G, Ethnomusicology M108A, 108B, 120A, 120B, 121, 121, and one upper division elective course in music. During each term in which students take private lessons, they must participate in a performance organization for a letter grade. Students taking string, woodwind, brass, or percussion lessons must select from Music C90E, 90F, C90G, 90M (Fall Quarter only), or 90N; students taking vocal lessons must select from C90A, 90D, or 90L; students taking keyboard or guitar lessons may choose from C90A through 90N. Students must participate in a minimum of two different organizations over the course of their stay at UCLA. In addition, they 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.

Theory: Music 120C and six courses selected in consultation with a faculty adviser.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gradnet.ucla.edu. 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 Music offers the Master of Music (M.M.) degree, Doctor of Musical Arts (D.M.A.) degree, and Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Music.
Music

Lower Division Courses

1A-1B. Fundamentals of Music. (4-4) Lecture, three hours; discussion, two hours. Designed for non-music majors. P/NP or letter grading. 1A. Introduction to elements of music: pitch and rhythm symbols, meter and time signatures, notation, scales, intervals, and chord structure. 1B. Requisite: course 1A. Diatonic harmony; four-part writing, including inversions, sevenths, secondary dominants, and modulation; organization of melody and accompaniment; simple analysis; sight-singing and ear training.


4A-4B-4C. Basic Musicianship. (2-2-2) Laboratory, three hours. Class instruction in elementary ear training and keyboard skills.

5. Beginning Voice Class. (2) Studio, four hours; outside practice and preparation, two hours. Not open to voice majors. Correct singing techniques, including vocal mechanism, posture and breathing, musical warm-ups, optimal vocal production, diction, and performance delivery to be put into practice in classroom study, vocal exercises, and warm-ups. Individual instruction with a vocal coach.

7. Understanding Movie Music. (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film music, with strong emphasis on recent development: Japanese animation, advertising, and MTV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in movie music. Offered in summer only. P/NP or letter grading.

8G. Graduate Piano Sight-Reading. (2) Limited to graduate students. Designed to help entering graduate students remedy entrance deficiencies, to be cleared by examination. May be repeated. S/U grading.

10. Computer-Assisted Sight-Singing Laboratory. (2) Lecture, two hours; laboratory, one hour. Requisite: course 1A. Individualized, self-instructional approach for development of sight-singing skills through use of a music computer, keyboard instrument, and linear programming.

15. Art of Listening. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through direct interaction with live performance, performers, and composers. Relationship of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.

16. Hollywood Musical and the American Dream. (4) (Formerly numbered 19.) Lecture, three hours; discussion, one hour. Examination of composers, writers, and filmmakers whose creative efforts changed how the world came to view the American dream. Full features and music clips illustrate American life as seen through Hollywood musicals. P/NP or letter grading.

20A. Music Theory I. (4) Lecture, two hours; discussion, six hours. Preparation: passing score on departmental examination. Theory: species counterpoint and fugue; introductory techniques of small-compass, note-against-note melodies; simple rhythmical dictions; use of treble, alto, and bass clefs.

20B. Music Theory II. (4) Lecture, four hours; discussion, four hours. Requisite: course 20A with a grade of C or better. Theory: diatonic harmony through secondary dominants and diminished sevenths; modulations to dominant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. Musicianship: harmonic dictation, including secondary dominants and diminished sevenths, but not modulations; more advanced two-part dictation; chromatic one-part dictation; more advanced sight-singing; keyboard (three-part open score in homophonic textures, introduction to tonal clefs).

20C. Music Theory III. (4) Lecture, four hours; discussion, four hours. Requisite: course 20B with a grade of C or better. Theory: chromatic harmony including development of tonality, 1800 to 1850; appropriate analysis and style composition. Musicianship: advanced sight-singing; two-part contrapuntal dictation; keyboard harmony (homophonic sequences major and minor keys); reading in open score of four-homophonic parts in four clefs.

23. Composition Workshop. (2) Requisites: courses 20A, 20B, 20C, 20D. Introductory composition course which provides composition experiences at a basic level. May be repeated once for credit.

60A-65. Undergraduate Instruction in Performance. (2) Limited to Music majors (all freshman/sophomore majors) and junior/senior majors not in performance specialization. Individual instruction of one hour per week. Students must perform in a practicum once during academic year. Grades are assigned by the applied instructor in Fall and Winter Quarters and by Jury examination in Spring Quarter. May be repeated for credit. 60A. Violin; 60B. Viola; 60C. Cello; 60D. String Bass; 60E. Harp; 60F. Classical Guitar; 60G. Viola da gamba; 60K. Lute; 61A. Flute; 61B. Oboe; 61C. Clarinet; 61D. Bassoon; 61E. Saxophone; 62A. Trumpet; 62B. French Horn; 62C. Trombone; 62D. Tuba; 63. Percussion. 64A. Piano; 64B. Organ; 64C. Harp; 64D. Harpsichord; 65. Voice.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple keyboard skills together with basic aspects of music theory and its practical application to keyboard: sight-reading, tonality, chords, scales, cadences, simple compositions, and improvisations. 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 the instrument; coverage of note reading and tablature. Offered in summer only. P/NP or letter grading.

90A. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Select mixed ensemble of 50 to 60 voices for performing choral music appropriate for a concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C480. P/NP or letter grading.

90B. Collegiate Chorus. (2) Nonaudition mixed chorus of 50 to 150 voices performing medium- and concert-length choral works from baroque to the present. Collegiate Chorus performs only as part of “Choral Union,” a large chorus made up of all of the choral ensembles. May be repeated for credit without limitation. P/NP or letter grading.

90C. Chamber Singers. (2) Activity, three hours. Preparation: audition. Select mixed mixed ensemble of 16 to 20 voices performing chamber choral music of all periods, 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. Preparation: audition. Rehearsal and performance of scenes and complete operas, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. P/NP or letter grading.

C90E. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of symphonic literature, as well as orchestral accompaniment for opera and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C481. P/NP or letter grading.


C90G. Wind Ensemble. (2) Activity, four hours. Preparation: audition. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C482. P/NP or letter grading.

90L. Music Theater Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and performance of scenes and complete musical theater productions, including repertoire and stage movement coaching. May be repeated for credit without limitation. P/NP or letter grading.

90M. Marching and Varsity Bands. (2) Activity, four hours. Preparation: audition. Group performance of special band arrangements for football and basketball games as well as special events. May be repeated for credit without limitation. P/NP or letter grading.

90P. Alexander Technique. (2) Activity, two hours; outside preparation and practice, four hours. Limited to Music majors. Introduction to principles of Alexander technique. Study of musician’s postural attitude at the instrument. Designed to help instrumentalists and vocalists prevent injuries and performance anxiety. May be repeated with consent of instructor. P/NP grading.

Upper Division Courses

100A-100B-100C. Music in American Education. (4-4-4) Lecture, four hours; laboratory, one hour. Requisites: courses 20A, 20B, 20C, 116, 120A, 120B, 120C. Music History 26A, 26B, 26C. Critical study and analysis of philosophy, history, organization, curriculum, and literature of music programs for elementary and secondary schools in American education. Each course may be taken independently for credit. Letter grading. 100A. General Music Education; 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 the period, including species, canon, free counterpoint, cantus, firmus, point of imitation, motet, ricercar, 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-18th and 19th-century modes of expression, through writing and analysis. Letter grading.


106A. Orchestration I. (4) Discussion, three hours. Requisites: courses 120C (accelerated section), 123C. Ranges and characteristics of instruments, with exercises in scoring. P/NP or letter grading.

106B. Orchestration II. (4) Discussion, three hours. Requisites: courses 106A, 120C (accelerated section), 123C. Scoring and analysis for ensembles and full orchestra. P/NP or letter grading.
and Saxophone; Snare Drum; Choral and Instrumental Literature. (2-2)

110. Learning Approaches in Music Education. (2) Lecture, two hours; outside study, four hours. Introduction to concepts, attitudes, and skills necessary to teach music in K-12 schools through two major modes of music instruction: learning via transmission and through notation by developing technical and pedagogical proficiency on clarinet. Additional understanding developed through introspection and self-evaluation of field experiences. Letter grading.

111A. Technology in Music Education I. (1) (Formerly numbered 115F.) Laboratory, three hours. Requisite or corequisite: course 20A. Provides music educators with tools and knowledge necessary to use proprietary computer hardware and software for purposes of music sequencing, arranging, and scoring, with emphasis on applications that are appropriate for use in public and private schools for levels K-12 and higher education. Activities include familiarization with computer systems and software, computer-assisted music notation and publication, and development of basis sequencing techniques. Letter grading.

111B. Technology in Music Education II. (1) (Formerly numbered 115G.) 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 development of projects in 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 instructor to deliver and develop instruction in K-12 settings. P/NP grading.

114A-114I. Study of Instrumental and Vocal Techniques. (Formerly numbered 115A-115I.) Studio, three hours. Requisite or corequisite: course 20A. Applied studies in basic performance techniques and tutorial materials. Each of courses 114A through 114I may be repeated once for credit. Letter grading.

114A. High Strings; 114B. Low Strings; 114C. Flute and Saxophone; 114D. Double Reeds; 114E. Trumpet and Trombone; 114F. Horn and Tuba; 114G. Snare Drum; 114H. Other Percussion; 114I. Voice; 114J. Piano.

116. Introduction to Conducting. (2) Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A. Fundamentals of conducting, including basic skills, techniques, analysis, and repertoire.

117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting gestures, focus on score study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire.

118A-118B. Advanced Study and Conducting of Choral and Instrumental Literature. (2-2) Lecture, one hour; laboratory, two hours. Requisites: courses 116, 117. Detailed investigation of musical styles, performance practices, and rehearsal techniques. Each course may be repeated once for credit. 118A. Choral; 118B. Instrumental.

119. Vocal Techniques for Music Education. (2) Laboratory, two hours; outside study, four hours. Requisite: course 114J. Introduction to art of teaching vocal literature; learning via instruction: voice mechanisms of singing, diagnosis and correction of faults, health and care of voice, and instrumental techniques. Letter grading.

120A. Music Theory IV. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Requisite: course 20C with a grade of C (2.0) or better. Theory: advanced harmonic dictation and melodic composition; harmonic and melodic analysis; practical application. Letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours. Requisite: course 120A with a grade of C (2.0) or better. Theory: advanced harmonic dictation (diatonic and chromatic); keyboard harmonization of modulating melodies; elementary score reading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, four hours. Requisite: course 120B with a grade of C (2.0) or better. 20th-century harmonic language, including nonfunctional harmony, polytonality, free atonality, serialism, and minimalism.

121. Special Topics in 20th-Century Music. (4) Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit.

122. Speculative Music Theory. (4) Discussion, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. Techniques of tonal coherence studied through analysis and compositional exercises in styles of given periods. May be repeated once for credit. May be concurrently scheduled with course C222.

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 the small to large forms, including atonal composition and 20th-century techniques. Each course may be repeated once for credit, but first year must be taken in sequence.


124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for large wind ensembles. Preparation and production of score and parts. May include percussion. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

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 use of notation software (Sibelius), analysis of complex choral parts. Preparation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

M131. Development of Conducting. (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.

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 beginning with the development of its European beginning to the American music theater of today. P/NP or letter grading.

C175. Chamber Ensembles. (2) Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to the ensemble. 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.

C176. Electronic Music Composition. (4, 4) Lecture, three hours; laboratory, three hours. Preparation: advanced experience and accomplishment in serious composition (art music), two years of music theory. Limited to music composition majors. Two years of music theory (115E) or two years of 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 C226. P/NP or letter grading.

C185. Historical and Philosophical Foundations of Music Education. (4) Lecture, three hours. Preparation: completion of undergraduate music education specialization. Development of music education in the U.S. according to established schools of thought. May be concurrently scheduled with course C225.

197. Individual Studies in Music. (2 or 4) (Formerly numbered 198A.) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in music, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for a maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

202. Analysis for Performers. (4) Lecture, three hours. Designed for graduate students. Survey of analytical techniques and methods necessary for professional performers, including structure, harmonic rhythm and prolongation, small and large forms, theories of musical coherence, and understanding of sonata form.

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204. Music Bibliography for Performers. (4) Lecture, three hours. Taught for graduate music performance students. Survey of general bibliographic techniques in music, with emphasis on materials for the performing musician.

C222. Speculative Music Theory. (4) Lecture, three hours. Designed for graduate music students. Techniques of tonal coherence studied through analysis and compositional exercises in styles of given periods. May be repeated once for credit. May be concurrently scheduled with course C122.

C225. Historical and Philosophical Foundations of Music Education. (4) Lecture, three hours. Designed for graduate students. Development of music education in the U.S., according to established schools of thought. May be concurrently scheduled with course C185. Additional assignments, as well as evidence of greater depth of study, required of graduate students.

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. Required for graduate students. Lecture: composition. Laboratory: exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (Pro-Tools), and final project. May be concurrently scheduled with course C175. S/U or letter grading.

251A-251D. Seminars: Special Topics in Composition and Theory. (4 each) Seminar, three hours. Intensive exploration of specialized aspects of composition. May be repeated for credit. C251A. Orchestration; C251B. Specific Media; C251C. Specific Styles; C251D. Computational Analysis.

252A-252B-252C. Seminars: Composition. (6-6-6) Seminar, three hours. Requisites: courses 106B, 129C. Course 252A is requisite to 252B, which is requisite to 252C. Courses may be taken out of sequence only with consent of instructor. May be repeated for credit.

251A-251F. Problems in Performance Practices. (4 each) Seminar, three hours; outside study, nine hours. Limited to graduate performance students. Investigation of primary source readings in performance practices related to the period. In-depth study and practical applications in class demonstration. May be repeated for credit. S/U or letter grading. 251A. Medieval; 251B. Renaissance; 251C. Baroque; 251D. Classical; 251E. Romantic; 251F. Contemporary.

266A-266B. Seminars: Music of the 20th Century. (4-4) Seminar, three hours. Designed for graduate music students. Discussion and analysis of major works of the 20th century, with emphasis on study of groups of works written at the same time in history. 266A. 1900 to 1949; 266B. 1950 to the Present.

267. Selected Topics in Keyboard Literature. (4) Lecture, three hours. Corequisite: course 464A or 464B or 464C or 464D. 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.

270A-270G. Seminars: Music Education. (6 each) Seminar, three hours. May be repeated for credit. 270A. History; 270B. Non-Western Musics; 270C. Curriculum Development; 270D. Tests and Measurements; 270E. Choral Literature; 270F. Instrumental Literature; 270G. General Topics.

271. Music and Electronic Technology. (4) Lecture, four hours; media laboratory, one hour. Designed for graduate music performance students. Survey of music and its place in emerging digital world of the arts, including training in arranging and multimedia production.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes of this approach to music instruction for children. Offered in summer only. S/U or letter grading.

331A-331B-331C. Orff Schulwerk Training Courses. (4-4-4) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Requisite: course 330. Course 331A is requisite to 331B, which is requisite to 331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete each course are eligible for certification at that level through the American Orff Schulwerk Association. Offered in summer only. S/U or letter grading. 331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).


332. Contemporary Marching Band. (1) Lecture, 12 hours. Innovative approaches to marching band programs for high school and college teachers, including 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.

343. Effective and Creative String Teaching. (2) Lecture, 24 hours. Comprehensive course for teachers of string classes and string orchestras at elementary, junior high, and high school levels. Topics include development of instructional techniques for violin, viola, cello, and bass; critical examination of current pedagogical materials; and 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.

343L. Effective and Creative String Teaching Laboratory. (1) Laboratory, 12 hours. Exploration of string orchestra, ensemble, and chamber music literature appropriate for high, and high schools. Examination of this literature in reading and discussion sessions. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

345. 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.

347. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of art of teaching and coaching voice, and including discussions of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects analytically composed and reinterpreted, peculiar to teaching student's primary instrument. Letter grading.

407. Opera Studio for Graduate Students. (4) Laboratory, six hours. Designed for graduate students. Performance practice techniques and repertoire for graduate students in opera.

461A-461B. String Bass; Oboe; Viola da gamba; Violin; Organ; Voice. 460A. Violin; 460B. Viola; 460C. Cello; 460D. String Bass; 460E. Harp; 460F. Classical Guitar; 460G. Viola da gamba; 460K. Lute; 461A. Flute; 461B. Oboe; 461C. Clarinet; 461D. Saxophone; 462A. Trumpet; 462B. French Horn; 462C. Trombone; 462D. Tuba; 463. Percussion; 464A. Piano; 464B. Organ; 464C. Harpsichord; 464D. Fortepiano; 465. Voice.

469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on a musical instrument. Designed for graduate music students. Study of art of teaching and coaching an instrument, including discussions of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects analytically composed and reinterpreted, peculiar to teaching student's primary instrument. Letter grading.

470. Opera Studio for Graduate Students. (6) Studio, one hour; performance laboratory/outside study, 15 hours. Limited to graduate performance students. Individualized study and preparation of musical literature in specialized field of conducting. May be repeated for credit. S/U or letter grading.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of art of teaching and coaching voice, and including discussions of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects analytically composed and reinterpreted, peculiar to teaching student's primary instrument. 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.

480. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Designed for graduate and undergraduate students. Select mixed ensemble of 50 to 60 voices performing choral music appropriate for a concert choral ensemble, with emphasis on music after 1700. May be repeated for credit without limitation. May be concurrently scheduled with course C90E.

C481. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of symphonic literature, as well as orchestral accompaniment for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C90E. S/U or letter grading.
C482. Wind Ensemble. (2) Activity, four hours. Preparation: audition. Designed for M.M. and D.M.A. students. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C90G.

C485. Chamber Ensembles. (2) Preparation: audition. Students must be at advanced level of their instrument to participate. Applied study of performance practices of literature appropriate to the ensemble. 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. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


596A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward 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 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.

**Musicology**

**College of Letters and Science**

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Robert Walser, Ph.D., D.M.A., Chair

**Professors**
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Robert Walser, Ph.D., D.M.A.

**Professors Emeriti**
Murray C. Bradshaw, Ph.D.
Marie Louise Göllner, Ph.D.
Edwin H. Hanley, Ph.D.
Richard A. Hudson, Ph.D.
Gilbert Reaney, M.A.
Robert M. Stevenson, Ph.D.
Robert L. Tusler, Ph.D.

**Associate Professors**
Robert W. Fink, Ph.D.
Elisabeth C. Le Guin, Ph.D.
Tamara J.M. Levitz, Ph.D.
Mitchell B. Morris, Ph.D.
Timothy D. Taylor, Ph.D.

**Assistant Professor**
Olivia A. Bloechi, Ph.D.
Elizabeth Randell Upton, Ph.D.

**Scope and Objectives**

The Department of Musicology provides students with a broad understanding of the history of music. Courses cover virtually every period, style, and genre, including jazz and other popular musics.

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**

**Music History B.A.**

**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**

**Required:** Music 20A, 20B, 20C, Music History 26A, 26B, 26C, 88, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z or Music C90A through 90M. Enrollment in Music 20A requires either a minimum score on the Music Theory Placement Examination administered by the Music Department or successful completion of Music 3 (or a comparable year-long college-level music theory sequence). Students with limited musicianship skills may find it useful to enroll in Music 4A, 4B, 4C concurrently with Music 20A, 20B, 20C. Transfer applicants may petition to waive courses 20A, 20B, 20C if they have completed equivalent work prior to enrolling at UCLA.

**Transfer Students**

Transfer applicants to the Music History major with 90 or more units must complete the following courses prior to admission to UCLA: one year of music theory and one year of music history and analysis. Experience in music performance is strongly recommended. Transfer students are required to take Music History 26A, 26B, 26C.

Refer to the UCLA Transfer Admission Guide for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Music 120A, 120B, 120C, Music History 126A, 126B, 126C, 190 (concurrent with either 198 or 199), 193C, 193D; three courses from Music History 191A through 191G; two additional upper division music history courses (8 to 10 units), each taken in conjunction with 189 or 189HC (2 units); and one upper division ethnomusicology course (4 to 5 units). Students not pursuing departmental honors must take course 199 (2 units) in Fall Quarter of their senior year. Students may petition to substitute theory or analysis courses in ethnomusicology or music history for one or more of Music 120A, 120B, 120C, as appropriate. Students may enroll in lessons from the Music Department, if instructors are available.

**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 3.5 or better and an
Music History

Lower Division Courses


2. 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 the tradition itself. P/NP or letter grading.

3. History of Rock and Roll. (5) Lecture, four hours. Examination of life and music of the Beatles within social and historical context of the 1960s. P/NP or letter grading.

4. The Beatles. (5) Lecture, four hours. Examination of interaction with 189 or 189HC (15 to 18 units).

5. History of Electronic Dance Music. (5) Formerly numbered 138B. Lecture, four hours. Survey of groove-based electrified dance music from its origins in 1960s' pop and soul to the present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce "altered states" of musical consciousness; promise (versus reallity) of political and spiritual transformation; electronic dance music as a new "art" music. P/NP or letter grading.

6. American Popular Song. (4) Formerly numbered 131D. Lecture, four hours. American popular music before advent of rock and roll in the 1950s, with special emphasis on song tradition of Tin Pan Alley. P/NP or letter grading.

7. Film and Music. (4) Lecture, four hours; discussion, two hours. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual images. P/NP or letter grading.

8. History of Electronic Dance Music. (5) Formerly numbered 138B. Lecture, four hours. Survey of groove-based electrified dance music from its origins in 1960s' pop and soul to the present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club cultures to induce "altered states" of musical consciousness; promise (versus reality) of political and spiritual transformation; electronic dance music as a new "art" music. P/NP or letter grading.

9. American Popular Song. (4) Formerly numbered 131D. Lecture, four hours. American popular music before advent of rock and roll in the 1950s, with special emphasis on song tradition of Tin Pan Alley. P/NP or letter grading.


12W. Writing about Music. (5) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H. 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.

26A-26B-26C. History and Analysis of Music I. (5-5-5) Lecture, four hours; laboratory, one hour. Course 26A is requisite to 26B, which is enforced requisite to 26C. Students must receive a grade of C- or better to proceed to next course in sequence. Survey of music from 1815 to the present, with emphasis on analysis of representative works of each style period. Materials selected illustrate history of style and changing techniques of composition. Letter grading.


132. Mozart. (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. P/NP or letter grading.

133. Bach. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Johann Sebastian Bach. P/NP or letter grading.

135A-135B-135C. History of Opera. (5-5-5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. P/NP or letter grading.


M136. Music and Gender. (5) (Same as Women’s Studies M136.) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, the body, and sexuality by both male and female musicians; contributions of women to Western art and popular musics; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137. Gay and Lesbian Perspectives in Pop Music. (5) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M137.) Lecture, four hours; discussion, one hour. Survey of English-language popular music in the 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.
139. Sacred Music. (4) Lecture, four hours. Study of forms and liturgies of Western church music. P/NP or letter grading.

140. Music, Media, and Consumer Society. (4) Lecture, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler), broadcast media (radio, television, MTV, Internet), and global capitalism (record labels, advertising, Muzak) on how we consume and are consumed by music. How music functions and malfunctions on records, under movies, behind ads, and in semiotic fabric of everyday life. Letter grading.


150. History of Jazz. (5) Lecture, four hours; discussion, one hour. History and analysis of variety of jazz styles, from late 19th-century forerunners to the present, with emphasis on social meanings of musical practices. Letter grading.

188. Topics in Music History. (4) Lecture, three hours; laboratory, one hour. Variable topics selected from several outstanding composers in Western art music. Consult Schedule of Classes for topics to be offered. Letter grading.

190. Research Colloquia in Music History. (1) Seminar, one hour. Designed for senior Music History majors. Designed to bring together students under taking supervised tutorial research in seminar setting with one or more faculty members to share their work with their peers, as well as act as interlocutors for other course members. Students expected to present their work and to discuss and help critique work of others at similar stage of development. P/NP grading.

191A-191G. Variable Topics in History of Music. (4 each) (Formerly numbered 127A-127G.) Seminar, three hours. Requisites: courses 26A, 26B, 26C. Designed as proseminars for undergraduate students in preparation for graduate work. Special aspects of music of each period studied in depth. Reading, discussion, and development of culminating project. P/NP or letter grading.

224. Wagner’s Parsifal. (4) Seminar, three hours. Examination of Wagner’s place in intellectual and spiritual worlds of that culture through detailed consideration of Wagner’s final work, Parsifal. Problematic with respect to musical language, genre designation, and dramatic action, Parsifal exemplifies and establishes concepts and modes of feeling that remain crucial to 20th-century culture as well. Exploration of themes and implications surrounding the work. Letter grading.

225. Experimental Music. (4) Seminar, three hours. Designed for graduate students. Exploration of wide range of post-1960 musical experimentalism as both in cultivated and vernacular traditions. Composers may include Cage, Young, Reich, Riley, Adams, Andriessen, Bryars, Eno, Nancarrow, Velvet Underground, Negativland, Sonic Youth. Letter grading.

240. Topics in Jazz. (4) Seminar, three hours. Designed for graduate students. Seminar in jazz history, with focus on major figure (e.g., Louis Armstrong, Duke Ellington) or issue (e.g., cultural hierarchy, jazz outside the U.S.). Intensive research on important topic in jazz studies. Letter grading.

250A-250B. Seminars: History of Music Theory. (2 to 4) Seminar, three hours. Requisites: courses 126A, 126B, 126C. Examination of historical development of theory of music, with emphasis on impact of recent cultural theory. Letter grading.


250D. Historiography and Cultural Theory. (6) Seminar, three hours. Designed for graduate musicology students. Critical examination of principles and procedures that inform historical study of music, with emphasis on impact of recent cultural theory. Letter grading.

260A. Music of the U.S. (6) Seminar, three hours. Requisite or corequisite: course 250A. Intensive research on important topic in music by drawing on “folk” traditions concerning music from Rameau to the present.

260B. Historiography and Cultural Theory. (6) Seminar, three hours. Designed for graduate musicology students. Critical examination of principles and procedures that inform historical study of music, with emphasis on impact of recent cultural theory. Letter grading.

260C. Analysis and Criticism. (6) Seminar, three hours. Designed for graduate musicology students. Examination of recent developments in field of musicology, with focus on problems of how music operates as cultural practice and how musical meanings can most effectively be analyzed and written about. Letter grading.

261D. Wagner's Parsifal. (4) Seminar, three hours. Designed for graduate musicology students. Exploration of Cuban racial and national politics and ideology as they intersect with musical nationalism in Cuba between 1910 and 1940. Afro-Cubanismo and modernism within Cuba, with specific concentration on composers Alejandro García Caturla and Amadeo Roldán. Cuban vanguardia of 1920s struggled with national identity which they sought to solidify or represent in their music by drawing on “folk” traditions consisting of mix of European and indigenous influences. Exploration of theoretical debates, selected traditions of Afro-cuban dance and music, popular musics in Cuba, vanguard scores, and Afro-cubanism movement in literature. Letter grading.

261E. Baroque Music. (4) Seminar, three hours. Survey of music of the Baroque period, with special emphasis on baroque style itself and the historical context of its development.

261F. Contemporary. (4) Seminar, three hours. Exploration of modernism and postmodernism in 20th-century music.
262. Contemporary Popular Music Studies. (4) Seminar, three hours. Designed for graduate students. Critical exploration of methodologies of interdisciplinary field of popular music studies. Analysis of how music, lyrics, and visual images produce meanings within contexts shaped by mass mediation, capitalism, and political realities of gender, class, and race.


264. Seminar: Topics in Musicology. (6) Seminar, three hours. Designed for graduate students. Specific topics vary from term to term. May be repeated for credit.

296. Research Topics in Musicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for musicology graduate students. Advanced study and analysis of current topics in musicology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298. Seminar: Research Methods. (2) Seminar, two hours. Limited to second-year musicology graduate 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 the University. May be repeated for credit. S/U 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.

596. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 or 4) Preparation: completion of all M.A. or Ph.D. course and language requirements. Limited to graduate students. S/U grading.


Near Eastern Languages and Cultures
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S. Peter Cowe, Ph.D. (Narekatsi Professor of Armenian Studies)
Robert K. Englund, Ph.D.
Lev Hakak, Ph.D.
Ismael K. Poonsawala, Ph.D.
Yona Sabar, Ph.D.
William M. Schniedewind, Ph.D.
Hossein Ziai, Ph.D.

Professors Emeriti
Amin Banani, Ph.D.
Arnold J. Band, Ph.D.
Andras E. Bodrogligeti, Ph.D.
Seeger A. Bonebakker, Ph.D.
Giorgio Buccellati, Ph.D.
Herbert A. Davidson, Ph.D.
Wolf Leslau, Docteur es Lettres
Thomas Penchoen, Ph.D.
Hannis-Peter Schmidt, Ph.D.
Stanislav Segert, Ph.D.

Associate Professors
Michael D. Cooperson, Ph.D.
Willemina Z. Wendrich, Ph.D.

Assistant Professors
Carol A. Bakhos, Ph.D.
Jacco Dieleman, Ph.D.
M. Rahim Shayeghan, Ph.D. (Musa Sabi Professor of Iranian Studies)

Lecturers
Nancy Ezer, Ph.D.
Michael Fishbein, Ph.D.
Latifeh E. Hagigi, M.A.
Anahid Keshishian, Ph.D.

Adjunct Assistant Professor
David G. Hirsch, M.A.

Scope and Objectives
The mission of the Near Eastern Languages and Cultures Department is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

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 Turkish. To meet increasing demands for a knowledge of this area, as it is 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 Eastern Civilizations, Arabic, Hebrew, Iranian Studies, and Jewish Studies. Master’s and Ph.D. programs are offered in ancient Near Eastern civilizations, Arabic, Armenian, Hebrew, Iranian, Semitics, and Turkic.

Undergraduate Study
The department offers the Bachelor of Arts degree in five fields: (1) Ancient Near Eastern Civilizations, (2) Arabic, (3) Hebrew, (4) Iranian Studies, and (5) Jewish 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 Eastern Civilizations B.A.

There are four options for a major in Ancient Near Eastern Civilizations: (1) Mesopotamia, (2) Egypt, (3) Near Eastern archaeology and cultures, and (4) biblical studies.

Preparation for the Major
Requisite for all options: Near Eastern Languages 50A; requisites for options 1, 2, and 3: German 1, 2, 3 (French 1, 2, 3 may be substituted); requisites for option 4: Hebrew 1A, 1B, 1C. Majors in all four fields are encouraged to continue their language study beyond the requisite levels.

Transfer Students
Transfer applicants to the Ancient Near Eastern Civilizations major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course for all options, one year of German or French for the options in Mesopotamia, Egypt, and Near Eastern archaeology and cultures, and one year of Hebrew for the biblical studies option.

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
Majors in all four options are required to take 14 upper division courses selected in consultation with the program adviser.

Majors selecting option 1 (Mesopotamia) are required to take 14 courses as follows: four language courses (Semitics 140A, 140B, 141,
Arabic B.A.

Preparation for the Major
Required: Arabic 1A, 1B, 1C.

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

Hebrew B.A.

Preparation for the Major
Required: Hebrew 1A, 1B, 1C, or equivalent.

Transfer Students
Transfer applicants to the Hebrew major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Hebrew.
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: Fourteen courses, including Hebrew 102A, 102B, 103A, 103B, 103C; one term of Hebrew 120 or 125; and one term of Hebrew C140. The remaining six courses may be selected from Hebrew 111A, 111B, 111C, 130, 135, C140, 160, 170, 180A, 180B, 199. Jewish Studies M150A, 150B, 175, M182A, M182B, Semitics 110, 115, 130, 140A, 140B. No more than two of the 14 courses may be credited through a proficiency test administered by the department.

Jewish Studies B.A.

Students must select one of five tracks: (1) Jewish history, (2) Jewish religions, (3) Jewish literature and culture, (4) American Jewish literature and culture, or (5) Israeli studies.

Preparation for the Major
Required: Jewish Studies 10.

Transfer Students
Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one social, cultural, and religious institutions of Judaism course.
Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Majors in all five tracks are required to take 14 upper division courses selected in consultation with the program adviser, including seven required core courses, five courses within the selected track, and two electives to be chosen from Hebrew, Jewish studies, or any courses listed under any track.
Core requirements include Jewish Studies M184A (or History M184A); one year of upper division Hebrew (either Hebrew 102A, 102B, or Hebrew 103A, 103B, or 103C); two terms of the Jewish history sequence selected from Jewish Studies M182A, M182B, M182C, M184B and one course on the Hebrew Bible selected from English 108A, Hebrew 120, or Jewish Studies M150A, 150B.
A third year of Hebrew or one year of Yiddish or another Jewish language is strongly recommended but not required.

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.

A course may be applied toward only one category within the major (i.e., core requirement, track requirement, or electives). No more than 20 units may be applied toward both the Jewish Studies major and a major or minor in another department or program.

For the Jewish history track, students are required to complete the remaining two courses from Jewish Studies M182A, M182B, M182C, M184B and three courses from the following list, in addition to the core courses for the major: Ancient Near East 162, History M182D, 183A, 183B, 186A, 191A, 197, Jewish Studies 140A, 140B, 170, M182D, M182F, M184D, 197, 199.

For the Jewish religion track, students are required to complete Jewish Studies 150B and four of the following courses, in addition to the core courses for the major: Ancient Near East 162, English 108A, 108C, 199, Hebrew 120, 125, 130, History 186A, Jewish Studies 130, 135, M150A, M151A, 155, 170, M182A, M182B, M187, 197, 199.

For the Jewish literature and culture track, students are required to complete Hebrew 103A, 103B, 103C, and two of the following courses, in addition to the core courses for the major: English 103, 108A, 108C, 182C, German 112, Hebrew 111A, 111B, 111C, 120, 125, 130, C140, Iranian 131, Jewish Studies 135, 143, M150A, 150B, M151A, 151B, 155, 170, 175, 177, M187, 197, 199.

For the American Jewish studies track, students are required to complete Sociology 159 and four of the following courses, in addition to the core courses for the major: English 103, 182C, 199, History 197, Jewish Studies 135, 140A, 140B, M151A, 177, M182F, M184C, 199, Yiddish 101A, 101B, 101C, 102A, 102B, 104.

For the Israeli studies track, students are required to complete Hebrew 103A, 103B, 103C, and two of the following courses, in addition to the core courses for the major: Hebrew 111A, 111B, 111C, C140, History 183B, 197, Jewish Studies 142, 151B, 175, M182B, M184D, 197, 199, Political Science 121, 132A, M132B, 139, 164, 199.

**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, B300 Murphy Hall, (310) 825-4889.

### 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, have completed Arabic 1A, 1B, 1C, or the equivalent as determined by the department, and file a petition in 3215 Hershey Hall, (310) 825-4165.

**Required Upper Division Courses (28 units):**

- Seven courses in Arabic or Islamics; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department. Courses recommended as electives for the major in Arabic (Art History 104A, Geography 187, History 105A, 105B, 105C, 106A, 108B, Political Science 132A, M132B, 157) may be applied. Other courses may be applied as extra-departmental courses with approval of the adviser.

All minor courses must be taken for a letter grade, with 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 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, have completed Armenian 101A, 101B, 101C, or the equivalent as determined by the department, and file a petition in 3215 Hershey Hall, (310) 825-4165.

**Required Upper Division Courses (28 units):**

- Seven courses from the Armenian section of the department; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department. The content of the courses bears a direct relation to the culture of the Near East.

All minor courses must be taken for a letter grade, with 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, have completed Hebrew 1A, 1B, 1C, or the equivalent as determined by the department, and file a petition in 3215 Hershey Hall, (310) 825-4165.

**Required Upper Division Courses (28 units):**

- Seven courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With approval of the undergraduate adviser and based on course content, two of the seven courses may be taken outside the department.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

### Near Eastern Languages and Cultures Minor

The Near Eastern Languages and Cultures 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 3215 Hershey Hall, (310) 825-4165.

**Required Upper Division Courses (28 units):**

- Seven courses selected in consultation with an academic adviser from any of the courses offered by the department; 199 courses may not be applied. With approval of the undergraduate adviser, two of the seven courses may be taken outside the department, provided the culture of the Near East.

All minor courses must be taken for a letter grade, with 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 the Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Near Eastern Languages and Cultures offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Near Eastern Languages and Cultures.
Ancient Near East

(Adkadian, Aramaic, Phoenician, and Ugaritic are listed under Semitics.)

Lower Division Course

10W. Jerusalem: The Holy City. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Satisfies Writing II requirement. Letter grading.

Upper Division Courses

M103A-M103B. Ancient Egyptian Civilization. (4-4) (Formerly numbered M104A-M104B.) (Same as History M103.) 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. Historical discussion of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until Alexander/C. M104. History of Ancient Mesopotamia and Syria. (4) (Formerly numbered M105.) (Same as History M104.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of "Fertile Crescent," including Palestine, from Late Uruk to neo-Babylonian period. Letter grading.

120A-120B-120C. Elementary Ancient Egyptian. (5-5-5) Lecture, three hours; laboratory, two hours. Course 120A is requisite to 120B, which is requisite to 120C. Grammar and texts. P/NP or letter grading.

121A-121B-121C. Intermediate Ancient Egyptian. (5-5-5) Lecture, three hours. Requisite: course 120C. Course 121A is requisite to 121B, which is requisite to 121C. Requisite: course 121C. Readings in ancient Egyptian literature. P/NP or letter grading.

123A-123B. Coptic. (5-5) Lecture, three hours. Course 123A is requisite to 123B. Introduction to Coptic grammar and reading of Coptic texts. P/NP or letter grading.

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.

130. Ancient Egyptian Religion. (5) Lecture, three hours; discussion, one hour. Introductory survey of various ancient Egyptian religious beliefs and practices, their origin, and development. Discussions of religious-political institutions such as divine kingship and pi-ous foundations. P/NP or letter grading.

140A-140B-140C. Elementary Sumerian. (4-4-4) Lecture, three hours. Requisites: Semitics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from the Ur III period. P/NP or letter grading.


150A-150B-150C. Survey of Ancient Near Eastern Literatures in English. (4-4-4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. 150A. Mesopotamia; 150B. Egypt; 150C. Syria and Palestine, Asia Minor, Persia.


163. Archaeology of Iran. (4) ( Formerly numbered 163A-163B.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. P/NP or letter grading.

164A. Sumerians. (4) Lecture, three hours. Survey of main archaeological periods in Mesopotamia, with special emphasis on historic periods and with reference to neighboring cultural areas. P/NP or letter grading.

164B. Assyrians. (4) Lecture, three hours. Survey of main archaeological periods in Mesopotamia, with special emphasis on historic periods and with reference to neighboring cultural areas. P/NP or letter grading.

164C. Babylonians. (4) Lecture, three hours. Survey of main archaeological periods in Mesopotamia, with special emphasis on historic periods and with reference to neighboring cultural areas. P/NP or letter grading.

165. Archaeology of Pharaonic Egypt. (4) Lecture, three hours. Requisites: courses M103A, M103B. Selected topics on archaeology of Pharaonic Egypt, with emphasis on material culture as source for political, social, and economic history of ancient Egypt. P/NP or letter grading.

170. Introduction to Biblical Studies. (4) Lecture, two hours. Requisites: courses M103A, M103B. Selected topics on archaeology of Pharaonic Egypt, with emphasis on material culture as source for political, social, and economic history of ancient Egypt. P/NP or letter grading.

178. Introduction to Demotic Egypt. (4) Lecture, three hours. Requisite: course 121C. Introduction to Demotic grammar and orthography. Reading of texts from various genres. S/U or letter grading.

197. Individual Studies in Ancient Near East. (2 to 4) Tutorial, to be arranged. S/U grading. (Formerly numbered 193.) May be repeated for credit. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

221A-221B. Demotic. (4-4) Lecture, three hours. Requisite: course 121C. Introduction to Demotic grammar and orthography. Reading of texts from various genres. S/U or letter grading.

230. Seminar: Ancient Syria/Palestine. (4) Seminar, three hours. Examines selected topics on political, social, and intellectual history of ancient Israel. Exploration of how historical, social, and political contexts shaped and influenced interpretation and use of biblical texts. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4-4-4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic or stylistic analysis and literary history. S/U or letter grading.

M250. Seminar: Ancient Mesopotamia. (4) (Same as History M257.) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. May be repeated for credit. S/U or letter grading.

250X. Seminar: Ancient Near East. (1) Seminar, three hours. Selected topics on political, social, and intellectual history of ancient Mesopotamia. Course is intended for students who participate regularly in class meetings but without the homework required in course M250. May be repeated for credit. S/U grading.

260. Seminar: Ancient Near Eastern Archaeology. (2 to 4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

261. Practical Field Archaeology. (2 to 8) Fieldwork, two hours. Participation in archaeological excavations or other archaeological research in the Near East under staff supervision. May be repeated for credit. S/U or letter grading.

262. Seminar: Object Archaeology. (4) Seminar, two hours; laboratory, one hour. Selected topics in analysis and interpretation of Near Eastern archaeological finds in museum collections. Students work with objects in Heeramanek Collection of Los Angeles County Museum of Art. S/U or letter grading.


M265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("lawa") which lead to site formation and of stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in the literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with the help of specialists. 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.


Related Courses

Art History

101A. Egyptian Art and Archaeology

101B. Egyptian Art and Archaeology of the Middle and New Kingdoms
106A-106B-106C. Advanced Modern Eastern Armenian. (5-5-5) Lecture, five hours. Course 104A is requisite to 104B, which is requisite to 104C. Designed for students with speaking fluency and reading abilities in Armenian. Introduction to basics of grammar and conversation. P/NP or letter grading.

Related Courses

History

105A-105B-105C. Survey of Middle East from 500 to the Present

108A. History of North Africa from Islamic Conquest

108B. History of Islamic Iberia

Armenian

Upper Division Courses

101A-101B-101C. Elementary Modern Western Armenian. (5-5-5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Armenian grammar, conversation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Armenian. (5-5-5) Lecture, five hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. Interpretation and analysis of selected texts, composition, and conversation. P/NP or letter grading.

103A-103B-103C. Advanced Modern Western Armenian. (4-4-4) Formerly numbered 103T. Lecture, four hours. Course 103A is requisite to 103B, which is requisite to 103C. Advanced Modern Armenian in following areas of competency: fluency, literacy, 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.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three hours. Doctorate and hermeneutics of various schools of thought in Islam, with selected readings from major works. May be repeated for a maximum of 24 units. S/U or letter grading.

240. Seminar: Arab Historians and Geographers. (4) Seminar, three hours. Reading of works of major historians, geographers, and travelers. May be repeated for a maximum of 24 units. S/U or letter grading.

250. Seminar: Classical Arabic Literature. (4) Seminar, two hours. Selected topics from classical Arabic prose and poetry. May be repeated for a maximum of 24 units. S/U or letter grading.

251. Seminar: Modern Arabic Literature. (4) Seminar, three hours. Selected topics from modern Arabic prose and poetry in the 20th century. May be repeated for credit. Letter grading.

130. Armenian Civilization under Bagratid Dynas-
ty, 884 to 1064. (4) Lecture, four hours. Interdiscipli-
nary investigation of the importance of the socio-
political and economic factors in creation of works of art (liter-
ature, art, architecture, etc.) and social function these works
performed in this important period of Armenian
history. Letter grading.
131. Armenian Civilization in Cilcician Period, 1080
to 1375. (4) Lecture, four hours. Interdisciplinary
investigation of the rise and fall of unique form of Armenian
polity established outside the homeland and exami-
nation of degree to which its social structure and cul-
tural and aesthetic norms were impacted by those of
the West (Byzantium, Western Europe) and East
(Crusader states). Tutorial.
150A-150B. Survey of Armenian Literature in En-
glish. (4-4) Lecture, three hours. Knowledge of Ar-
menian not required. Each course may be taken inde-
dependently for credit. P/NP or letter grading.
C151. Armenian Literature and Canon Formation.
(4) Formerly numbered 151.) Lecture, four hours.
Discussion of fundamental themes and genres around which Armenian literary tradition evolved and
modalities by which this has been transformed in
course of last two centuries as a result of exposure to
European thought and expressive forms. Concurrently
scheduled with course C251. P/NP or letter grad-
ing.
C152. Modern Armenian Drama as Vehicle for So-
cial Critique. (4) (Formerly numbered 152.) 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 signifi-
cant Armenian playwrights, with focus on their role as
commentators on contemporary mores and as agents
for social reform. Concurrently scheduled with course
C252. Letter grading.
C153. Art, Politics, and Nationalism in Modern Ar-
menian Literature. (4) (Formerly numbered 153.) Lecture,
four hours. Examination of role of literature in modern
Armenian society in service to a cause or causes, as propaganda for various ideologies, as art for art's sake, etc. Exploration of contrasting aesthet-
ics implicit in these differing interpretations. Concur-
rently scheduled with course C253. P/NP or letter
grading.
C155. Issues in Armenian American Literature and
Culture. (4) Lecture, four hours. Preparation: reading
knowledge of modern Eastern and Western Armenian. Theoretically informed exploration of some of
most significant issues related to Armenian Ameri-
can community as reflected in its literature and other
cultural artifacts in interaction with its pluralistic Amer-
ican ambience. Concurrently scheduled with course
C255. Letter grading.
160A-160B. Armenian Literature of the 19th and
20th Centuries. (4-4) Lecture, three hours. Requi-
sites: courses 102A, 102B, 102C. Reading of texts and
discussion of various genres of modern Arme-

C166. Armenian Film and Culture. (5) Lecture,
six hours. Requires: course 101C or 104C. Overview of
development of Armenian cinematography from first
film to the present, with focus on work of most sem-
inial directors from Armenian Republic, as well as vari-
ous voices from worldwide diaspora. Concurrently
scheduled with course C266. P/NP or letter grading.
170. Armenian Poetry, 1880 to 1930. (4) Lecture,
three hours. Requires: course 101C or 104C. Examine-
ation of process behind creation of range and variety
of poetic expression that developed in new literary for-
mats and genres that came to stand standard modern
Eastern and Western Armenian language in second
half of the 19th century. Special attention to crafting of
craft of new literary forms and genres that became stand-
ards of what became standar modern Eastern and
Western Armenian language in second half of the
19th century. Special attention to crafting of
craft of new literary forms and genres that became stand-
ards of what became standar modern Eastern and
Western Armenian language in second half of the
19th century. Special attention to crafting of

M172. Armenian Painting of the 17th to 20th Cen-
turies. (4) (Same as Art History M172.) Lecture,
three hours. Overview of development of modern Ar-
menian painting out of its matrix in the 17th and 18th
centuries. P/NP or letter grading.
M173. Medieval Armenian Miniature Painting. (4)
(Same as Art History M173.) Lecture, three hours.
Examination of cultural and historical impact of Arme-

C252. Modern Armenian Drama as Vehicle for So-
cial Critique. (4) Lecture, four hours. Requisites:
production of deeper philosophical values. All texts read in
original language. P/NP or letter grading.

M253. Art, Politics, and Nationalism in Modern Ar-
menian Literature. (4) Lecture, four hours. Examina-
tion of role of literature in modern Armenian society in
service to a cause or causes, as propaganda for vari-
ous ideologies, as art for art's sake, etc. Exploration of
contrasting aesthetics implicit in these differing in-
terpretations. Concurrently scheduled with course
C153. 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 Armenian. Theoretically informed exploration of some of
most salient questions related to Armenian Ameri-
can community as reflected in its literature and other
cultural artifacts in interaction with its pluralistic Amer-
ican ambience. Concurrently scheduled with course
C155. Letter grading.

C256. Armenian Film and Culture. (5) Lecture,
six hours. Requisites: course 101C or 104C. Overview of
development of Armenian cinematography from first
film to the present, with focus on work of most sem-
inial directors from Armenian Republic, as well as vari-
os voices from worldwide diaspora. Concurrently
scheduled with course C166. S/U or letter grading.
200. Seminar: Armenian Paleography. (4) Sem-
nar, three hours. Discussion of a variety of Armenian
scripts and training in use of manuscripts. S/U or let-
ter grading.
596. Directed Individual Study. (2 to 8) Tutorial,
(2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.
597. Examination Preparation. (2 to 8) Tutorial,
(2 to 8) Tutorial, to be arranged. S/U grading.
599. Ph.D. Dissertation Research and Prepara-
tion. (2 to 8) Tutorial, to be arranged. S/U grading.

Related Courses
History
107A-107B-107C. Armenian History
C107D. Introduction to Armenian Oral History
107E. Caucasus under Russian and Soviet Rule
2005S. Advanced Historiography: Armenia and Cauca-
sus
201S. Topics in History: Armenia and Caucasus
211A-211B. Seminars: Armenian History
C212. Introduction to Armenian Oral History

Indo-European Studies
M150. Introduction to Indo-European Linguistics

Berber

Upper Division Courses
101A-101B-101C. Elementary Berber. (4-4-4) Lec-
ture, three hours; laboratory, two hours. Development of
oral proficiency and analysis of basic grammatical
structure, P/NP or letter grading.
102A-102B-102C. Advanced Berber. (4-4-4) Lec-
ture, four hours. Requisites: courses 101A, 101B,
101C. Advanced study of Berber. Regional and stylist-
ic variants in folk literature. P/NP or letter grading.
130. The Berbers. (4) Lecture, four hours. Examina-
tion of main features of Berber societies and cultures,
with particular focus on social structures and insti-
tutions on one hand, and to custom, language, and
beliefs on other. Presentation of broad framework within
which study of particular aspects of Berber cultures
may be pursued. P/NP or letter grading.
199. Special Studies in Berber Languages. (2 to
8) Tutorial, to be arranged. Studies based on require-
ments of individual students. P/NP or letter grading.

Related Course
History
108A. History of North Africa from Islamic Conquest

Near Eastern Languages and Cultures / 457
Hebrew

Lower Division Courses

1A-1B-1C. Elementary Hebrew. (5-5-5) Lecture, five hours; laboratory, one hour. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Introduction to modern Hebrew, including listening, speaking, reading, and writing. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Hebrew. (5-5-5) Lecture, five hours. Requisite: course 1C. Course 102A is requisite to 102B, which is requisite to 102C. Amplification of grammar; reading of texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4-4-4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Introduction to modern Hebrew literary texts. 110A-110B. Introduction to Biblical Hebrew. (4-4) Lecture, three hours. P/NP or letter grading. 110A. Phonology, morphology, and structure of biblical Hebrew. 110B. Requisite: course 110A. Continuation of course 110A. Readings of biblical prose texts. 111A-111B-111C. Conversational Hebrew. (3-3-3) (Formerly numbered 110.) Lecture, two hours; laboratory, one hour. Course 111A is requisite to 111B, which is requisite to 111C. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, internet, and newspapers. P/NP or letter grading.

112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours. Requisite: course 102C. In-depth reading and discussion of selected scholarly articles in modern Hebrew for various 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.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for a maximum of 16 units.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and Midrash. May be repeated for credit.

135. Medieval Hebrew Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in medieval Hebrew prose and poetry. May be repeated for a maximum of 16 units.

C140. Modern Hebrew Poetry and Prose. (4) (Formerly numbered 140.) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

160. Hebrew Essay. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Hebrew essay from its rise in Europe in the late 18th century to contemporary Israeli essay. Study of literary, political, philological, and scholarly essay. May be repeated for credit.

170. Dead Sea Scrolls and Biblical Studies. (4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Introduction to history of the Dead Sea Sect, their literature, and its impact on biblical studies, with focus on interpretation in the Qumran texts.

180A-180B. Survey of Hebrew Grammar. (4-4) (Formerly numbered 190A-190B.) 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 the present day, its relation to Arabic and other Semitic languages, methods of language expansion in Israel, Hebrew, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic). P/NP or letter grading.

188FL. Special Studies: Readings in Hebrew. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Primary readings and advanced training in Hebrew. Additional work in Hebrew to enrich and augment work assigned in main course, including reading, writing, and other exercises in Hebrew. P/NP or letter grading.

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. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper or project required. Individual contract required. P/NP or letter grading.

Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical 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.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit.

597. Examination Preparation. (2 to 8) Tutorial, to be arranged. May be repeated for credit.


Iranian

Lower Division Courses

1A-1B-1C. Elementary Persian. (5-5-5) Lecture, six hours. Requisite: course 1C. Course 1A is requisite to 1B, which is enforced requisite to 1C. Not open to students with prior knowledge of Persian. P/NP or letter grading.

10A-10B-10C. Persian Conversation. (2-2-2) Lecture, three hours. Systematic and structured Persian conversation.

20A-20B-20C. Accelerated Elementary Persian. (5-5-5) Lecture, four hours; discussion two hours; laboratory, 30 minutes per day. Preparation: some knowledge of spoken Persian. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. In-tensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. P/NP or letter grading.

Upper Division Courses

102A-102B-102C. Intermediate Persian. (5-5-5) Lecture, six hours. Requisite: course 1C or 20C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

103A-103B-103C. Advanced Persian. (4-4-4) Lecture, three hours. Requisite: course 102C. Students who successfully complete courses 20A, 20B, 20C with grades of A may be permitted to enroll. Each course may be taken independently for credit. 103A. Introduction to Classical Persian Poetry; 103B. Introduction to Contemporary Persian Poetry and Prose.

104. Philosophical Texts. (4) Lecture, three hours. Readings in English. Introduction to wide selection of philosophical texts in translation. Identification of major philosophical themes in ontology, epistemology, psychology, and cosmology through texts, with study in detail. P/NP or letter grading.

111A-111B-111C. Elementary Kurdish. (4-4-4) Lecture, three hours; laboratory, two hours. Proficiency-based course in basic grammar of literary Kurdish (Sorani). Graded readings, translation, composition (level one), conversation (levels one and two).

120. Comparative Study of Six Major Persian Poets. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of Persian. Lectures in Persian, readings in English and Persian. Comparative study of six major Persian poets from the 10th to 14th century who shaped the sense of Persian identity and delineated chief distinguishing characteristics of Persian thought and culture. P/NP or letter grading.

130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Jews in Persia by highlighting select areas of Judeo-Persian studies and focusing on various authors and their work. P/NP or letter grading.

131. Introduction to Judeo-Persian: Language and Culture. (4) Lecture, three hours. Preparation: knowledge of Persian equivalent to course 102C. Introduction to history of Judeo-Persian literature and culture. To prepare students to read Judeo-Persian texts. P/NP or letter grading.


141. Persian Analytical Prose. (4) Lecture, three hours. Requisite: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.
142. Persian Popular Ethics. (4) Lecture, three hours. Requisite: course 102C. Study of major Persian works on popular ethics which have helped shape normative social, cultural, and political values in Iranian civilization. May be repeated for credit with consent of instructor. P/N or letter grading.

150A-150B. Survey of Persian Literature in English. (4-4) Lecture, three hours. Knowledge of Persian not required. Each course may be taken independently for credit.

169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sasanian period.

170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammadan conquest; Indo-Iranian background, Zaraoastroianism, Manichaism, Mazdakism.

180A-180B. Iranian Civilization. (4-4) Lecture, three hours; discussion, one hour. Cultural and social history of the Iranian world, with emphasis on legacy of Persian language and literature. Letter (majors) or P/N or letter (nonmajors) grading.

181A-181B. Introduction to Modern Iranian Studies. (4-4) (Formerly numbered 190A-190B) Lecture, three hours. Requisites: courses 1A, 1B, 1C, Survey of Iranian languages. Comparative and historical grammar. P/N or letter grading.

187. Variable Topics in Iranian Studies. (4) (Formerly numbered 197A-197Z) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. P/N or letter grading.

188FL. Special Studies: Readings in Iranian. (2) (Formerly numbered 198FL) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Primary readings and advanced training in Iranian. Additional work in Iranian to enrich and augment work assigned in main course, including reading, writing, and other exercises in Iranian. P/N or letter grading.

197. Individual Studies in Iranian. (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. Individual contract required. P/N or letter grading.

198. 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 project required. Individual contract required. P/N 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.


231A-231B. Middle Iranian. (4-4) Lecture, four hours. Studies in grammars and texts of such Middle Iranian languages as best serve students' needs (e.g., Pahlavi, Sogdian, Sakan). Only course 231B may be repeated for credit. 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.


Related Courses

Art History

104A. Western Islamic Art
104B. Eastern Islamic Art

Ethnomusicology

91L. Music of Persia

History

9D. Introduction to Asian Civilizations: History of the Near and Middle East
105A-105B-105C. Problems in Islamic Art

Indo-European Studies

210. Indo-European Linguistics: Advanced Course II

South Asian (Asian Languages)

110A. Elementary Sanskrit
110B. Intermediate Sanskrit
110C. Advanced Sanskrit

Ismics

Upper Division Courses

110. Introduction to Islam. (5) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from the Qur’an and hadith; schools of law and theology; piety and Sufism; reform and modernism. P/N or letter grading.

130. Shi‘a in Islamic History. (4) Lecture, three hours. Rise and development of Shi‘a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform.

151. Contemporary Islamic Thought. (4) Lecture, 90 minutes; discussion, 90 minutes. Recommended requisite: course 110. Based on original writings of major Islamic thinkers in English translation, provides balanced picture of enormous ideological variety found in contemporary Muslim world. Examination of representative writings from wide spectrum of modern Islamic intellectuals and writers. Letter grading.

197. Individual Studies in Islamic Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. P/N or letter grading.

Graduate Courses

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Related Course

History

106A. Premodern Islam

Jewish Studies

Lower Division Course

10. Social, Cultural, and Religious Institutions of Judaism. (5) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogue; evolution of folk beliefs and year-cycle and life-cycle practices. P/N or letter grading.

Upper Division Courses

M111E. Ethnic Groups and Their Bibliographies: Jewish History and Culture. (4) (Same as Information Studies M111E) Basic reference sources on specific topics on Judaica, ranging from biblical studies to the Holocaust to Jewish life in the U.S.

130. Modern Jewish Religious Movements and Their Ideologies. (4) Lecture, three hours. Introduction to and overview of Jewish religious movements and evolution of their ideologies in the Western world from time of the Enlightenment to the present.

135. Jewish Law. (5) Lecture, three hours. Introduc- tion 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/N 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/N or letter grading. 140A, 1654 to 1914; 140B, 1914 to the Present.

141. Modern Anti-Semitism. (4) Lecture, three hours. Examination of modern anti-Semitism from the 18th century to the present; comparison of modern racist ideologies with premodern theories; case studies (e.g., Dreyfus affair, Belliss Trail, Holocaust); Jew- ish reactions to these phenomena.

142. History and Institutions of the State of Israel. (4) Lecture, three hours. Study of social and cultural development of State of Israel from its pre-state institutional structures to the present, with emphasis on major trends, personalities, and ideologies, and state’s position in wider framework of modern Jewish history.

143. Introduction to Jewish Folklore. (4) (Formerly numbered M143.) Lecture, three hours. Nature of Jewish folklore; narrative, folk song, folk art, folk religion, and methods and perspectives used in their analysis. P/N or letter grading.
### Near Eastern Languages

#### Lower Division Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>10A-10B</td>
<td>Hebrew Literature in English. (4-4) Lecture, three hours. Each course may be</td>
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<td>taken independently for credit. P/NP or letter grading.</td>
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<tr>
<td>110A-110B</td>
<td>Modern Hebrew Literature in English. (4-4) Lecture, three hours. Each course</td>
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<td>may be taken independently for credit. P/NP or letter grading.</td>
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<tr>
<td>118A</td>
<td>Diaspora Literature. (Formerly numbered 151A.) Study of literary responses of</td>
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<td></td>
<td>Jews to modernity, its challenges, and threats. Readings in texts originally</td>
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<td></td>
<td>written in English or translated from Hebrew, Yiddish, German, Russian, French,</td>
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<td></td>
<td>and Italian. Analysis of formal aspects of each work.</td>
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<td></td>
<td>Study of translations from Hebrew literature written in Israel and reflecting</td>
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<td>cardinal facets of Israeli life: social issues, security problems, identity of</td>
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<td>the state, role of individual. Analysis of formal aspects of each work.</td>
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<tr>
<td>155</td>
<td>Literature of the Cabala. (4) Lecture, three hours. Cabalistical literature in</td>
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<td>the broad sense (i.e., Jewish esoteric literature from the rabbinic to modern</td>
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<td></td>
<td>period). Topics include pre-Origenian esoteric texts, the early cabala, the Zohar,</td>
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<td>Lurianic cabala, nature of mysticism, the question of whether there was a Jewish</td>
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<td></td>
<td>mysticism.</td>
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<tr>
<td>170</td>
<td>Dead Sea Scrolls and Early Judaism. (4) Lecture, three hours. Introduction to</td>
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<td></td>
<td>Dead Sea Scrolls in English translation. Survey of literature, community of</td>
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<td></td>
<td>Kibbutz Qumran, and their place in early Judaism. P/NP or letter grading.</td>
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<tr>
<td>1881</td>
<td>Topics in Jewish History. (4) (Formerly numbered 197A-197Z.) Lecture, three</td>
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<tr>
<td></td>
<td>hours. Variable topics; consult Schedule of Classes for topics to be offered</td>
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<td>in specific term. May be repeated for credit. P/NP or letter grading.</td>
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<tr>
<td>181A</td>
<td>Topics in Jewish History. (4) (Formerly numbered M181L.) Lecture, three hours;</td>
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<td></td>
<td>discussion, one hour (when scheduled). Designed for juniors/seniors. Exami-</td>
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<td>nation of major issues in Jewish history. May be repeated for credit with topic</td>
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<td>and/or instructor change. P/NP or letter grading.</td>
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<tr>
<td>182A</td>
<td>Ancient Jewish History from Patriarchs to Rabbis. (4) (Formerly numbered M191A.)</td>
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<td></td>
<td>Lecture, three hours; discussion, one hour (when scheduled). Designed for</td>
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<td></td>
<td>juniors/seniors. Survey of social, political, and religious developments. P/NP</td>
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<td>or letter grading.</td>
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<tr>
<td>182B</td>
<td>Between Crescent and Cross: Jewish Middle Ages. (4) (Formerly numbered M181B)</td>
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<td></td>
<td>(Formerly numbered M191B.) Lecture, three hours; discussion, one hour (when</td>
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<td>scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish</td>
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<td>history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP</td>
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<td>or letter grading.</td>
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<tr>
<td>182C</td>
<td>Jewish History from Spanish Expulsion to 1881. (4) (Formerly numbered M191C.)</td>
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<td></td>
<td>Lecture, three hours; discussion, one hour (when scheduled). Designed for</td>
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<td></td>
<td>juniors/seniors. Survey of early modern Jewish history beginning with</td>
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<td>enormously repercussive expulsion of Jews from Spain in 1492, followed by trans-</td>
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<td>formations in Jewish society and identity over five centuries in Europe and</td>
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<td>Middle East, and concluding with nationalism. P/NP or letter grading.</td>
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<tr>
<td>182D</td>
<td>European Jewry from 1881 to the Present. (4) (Formerly numbered M191D.) Lecture,</td>
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<td></td>
<td>three hours; discussion, one hour (when scheduled). Designed for juniors/</td>
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<td></td>
<td>seniors. Survey of major social, economic, and political factors that shaped</td>
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<td>lives of Europe’s Jew from outbreak of First World War to the present. Emphasis</td>
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<tr>
<td></td>
<td>on diverse Jewish communities of interwar Europe, fate of Jews under Nazis, and</td>
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<td></td>
<td>character of postwar Jewish community. P/NP or letter grading.</td>
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<tr>
<td>182E</td>
<td>Jewish Intellectual History. (4-4) (Formerly numbered M192E-M192F.) Lecture,</td>
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<td></td>
<td>three hours; discussion, one hour (when scheduled). Designed for juniors/</td>
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<tr>
<td></td>
<td>seniors. Exploration of dynamic and millennia-old interaction of Jews with</td>
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<td>great world cultures. Creative adaptations that have lent Jewish culture its di-</td>
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<td>stinct and various forms. P/NP or letter grading.</td>
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<td>184A</td>
<td>Jewish Civilization: Encounter with Global World Cultures. (4) (Formerly num-</td>
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<td></td>
<td>numbered M191E.) Lecture, three hours; discussion, one hour (when scheduled).</td>
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<td></td>
<td>Designed for juniors/seniors. Journey of Jews in America, both historical and</td>
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<td>comparative. P/NP or letter grading.</td>
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<tr>
<td>184C</td>
<td>American Jewish Experience. (4) (Formerly numbered M191F.) Lecture, three</td>
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<td></td>
<td>hours; discussion, one hour (when scheduled). Designed for juniors/seniors.</td>
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<tr>
<td></td>
<td>Experience of Jews in America, both historical and comparative. P/NP or let-</td>
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<td>ter grading.</td>
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<td>184D</td>
<td>History of State of Israel from 1948 to the Present. (4) (Formerly numbered</td>
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<td></td>
<td>M191S.) Lecture, three hours; discussion, one hour (when scheduled). Designed</td>
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<td></td>
<td>for juniors/seniors. Examination of history of State of Israel from 1948 to</td>
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<td></td>
<td>the present. P/NP or letter grading.</td>
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<tr>
<td>185</td>
<td>Holocaust in Literature. (4) (Formerly numbered M185L.) Lecture, three hours;</td>
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<td></td>
<td>discussion. Required for History M184D. Investigation of Holocaust in literature</td>
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<td>and cinema works and raises wide range of aesthetic and moral questions. P/NP</td>
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<td></td>
<td>or letter grading.</td>
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<tr>
<td>191A</td>
<td>Variable Topics Seminars: Jewish Studies. (1 to 8) Seminar, three hours. Res-</td>
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<tr>
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<td>earch seminar on selected topics. Reading, discussion, and development of culminating</td>
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<td>project. P/NP or letter grading.</td>
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<td>197</td>
<td>Individual Studies in Jewish Studies. (2 to 4) Tutorial, one hour. Limited to</td>
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<td></td>
<td>juniors/seniors. Individually intensive study, with scheduled meetings to be</td>
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<td>arranged between faculty member and student. Asigned reading and tangible</td>
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<td></td>
<td>evidence of mastery of subject matter required. Individual contract required.</td>
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<td>P/NP or letter grading.</td>
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<tr>
<td>198</td>
<td>Directed Research or Senior Project in Jewish Studies. (2 to 4) Tutorial, one</td>
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<td></td>
<td>hour. Limited to juniors/seniors. Supervised individual research or investiga-</td>
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<td>tion under guidance of faculty mentor. Culminating paper or project required.</td>
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<td>Individual contract required. P/NP or letter grading.</td>
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</tbody>
</table>

### Related Courses

<table>
<thead>
<tr>
<th>Yiddish (English)</th>
<th>101A, 101B, 101C. Elementary Yiddish</th>
</tr>
</thead>
<tbody>
<tr>
<td>102A-102B.</td>
<td>Accelerated Elementary Yiddish</td>
</tr>
<tr>
<td>104</td>
<td>Advanced Yiddish</td>
</tr>
<tr>
<td>121A</td>
<td>20th-Century Yiddish Poetry in English Translation</td>
</tr>
<tr>
<td>121B</td>
<td>20th-Century Yiddish Prose and Drama in English Translation</td>
</tr>
<tr>
<td>121C</td>
<td>Special Topics in Yiddish Literature in English Translation</td>
</tr>
<tr>
<td>131A</td>
<td>Modern Yiddish Poetry</td>
</tr>
<tr>
<td>131B</td>
<td>Modern Yiddish Prose and Drama</td>
</tr>
<tr>
<td>131C</td>
<td>Special Topics in Yiddish Literature</td>
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<tr>
<td>197</td>
<td>Individual Studies in Yiddish</td>
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</tbody>
</table>

### Semitics

#### Upper Division Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>101</td>
<td>Neo-Aramaic. (4) Lecture, three hours. Grammar and reading of selected texts</td>
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<tr>
<td></td>
<td>(folktales, homilies, songs) in modern Aramaic dialects of the Jews and Chris-</td>
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<td></td>
<td>tians of Kurdistan.</td>
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<tr>
<td>115</td>
<td>Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language, Introductory</td>
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</tbody>
</table>

#### Graduate Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>200</td>
<td>Bibliography and Method of Near Eastern Languages and Literatures. (4) Lecture,</td>
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<tr>
<td></td>
<td>two hours. Required for M.A. degree. Introduction to bibliographical resources</td>
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<td></td>
<td>and training in methods of research in various areas of specialization offered</td>
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<td></td>
<td>by department. May be repeated for credit.</td>
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<tr>
<td>210</td>
<td>Survey of Afro-Asian Languages. (4) Lecture, three hours. Survey of structures</td>
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<td>of a number of representative languages from various major branches of the</td>
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<td>Hamito-Semitic (Afro-Asian) language family.</td>
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<tr>
<td>241</td>
<td>Folklore and Mythology of Near East. (4) (Formerly numbered M241.) Lecture,</td>
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<td></td>
<td>two hours. S/U grading.</td>
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<tr>
<td>290</td>
<td>Seminar: Paleography. (4) Seminar, three hours. Provides students with abili-</td>
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<td>ties to cope with varieties of manuscripts.</td>
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<td>375</td>
<td>Teaching Apprentice Practicum. (1 to 4) Tutorial, to be arranged. Prepared</td>
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<td>for enrollment as teaching assistant, associate, or fellow. Teaching apprenti-</td>
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<td>cship under active guidance and supervision of regular faculty member re-</td>
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<td>sponsible for curriculum and instruction at the University. May be repeated</td>
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<td>for credit. S/U grading.</td>
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<tr>
<td>501</td>
<td>Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and</td>
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<td></td>
<td>dean, and host campus instructor, department chair, and graduate dean. Used</td>
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<td>to record enrollment of UCLA students in courses taken under cooperative ar-</td>
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<td>rangements with USC. S/U grading.</td>
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<tr>
<td>596</td>
<td>Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated</td>
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<td></td>
<td>for credit. S/U grading.</td>
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<tr>
<td>597</td>
<td>Examination Preparation. (2 to 8) Tutorial, to be arranged. S/U grading.</td>
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</tbody>
</table>

#### Near Eastern Languages
Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation of the Bible and Syriac literature. May be repeated for credit.

220A-220B. Uyghur. (4-4) Lecture, two hours. Requisites: courses 210A, 210B, and 210C. Course in descriptive Uyghur language and literature. Only course 220B may be repeated for credit.


230. Seminar: Northwest Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian languages. May be repeated for credit.

240X. Seminar: Akkadian Language. (1) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian languages. 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 linguistic analysis of Akkadian literature. May be repeated for credit.

241X. Seminar: Akkadian Literature. (1) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in linguistic analysis of Akkadian literature. 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.

280A-280B-280C. Seminars: Comparative Semitics. (4-4-4) Seminar, two hours.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit.


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. Old Babylonian syntax; reading of basic Old Babylonian texts.

142. Akkadian Literary Texts. (4) Lecture, three hours. Selected readings from Akkadian myths and epics, with introduction to historical tradition of the works and their literary structure.

175. Individual Study in Semitics. (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. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Semitics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Examination (belles lettres as well as various types of state documents) in elaborate high style of classical Ottoman period. (15th to 19th century). Selections are read in manuscript to prepare students to read works in form in which they are likely to encounter them in their research.

210A-210B-210C. Introduction to Ottoman. (4-4-4) Lecture, three hours. Introduction to literary language of Ottoman Empire from foundation in the 14th century to its overthrow in the 20th century. For students of history, literature, and religion of the 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.


225A-225B-225C. Old Turkic: Turk and Uyugur. (4-4-4) Lecture, three hours. Requisites: course 180, Textual and linguistic analysis of Türk and Uyugur documents; inscriptions, Manichean and Buddhist literary works.

226A-226B-226C. Historical and Comparative Survey of Turkic Languages. (4-4-4) Lecture, three hours. Requisites: course 180. Extinct and living Turkic languages. History of Turkish: developments in phonemic, grammatical, and lexical systems from the 8th to 20th century. Structural analysis of Turkish languages on comparative basis.

229A-229B. Seminars: Classical Turkic Literature (Hsiung-nu, Hsien-pi, Juan-Juan, T’u-Chueh, Karakhanid, Seljuq, Kara-Khitay, Hsiungs, Ch’ung-ho, Thang-ho). (4-4) Seminar, two hours. Requisites: courses 210A, 210B, and 101C, or 111A, 111B, and 111C, or Iranian 102A, 102B, and 102C, or 220A, 220B, and 220C. Emphasis on different genres of Ottoman writing (belles lettres as well as various types of state documents) in elaborate high style of classical Ottoman period. (15th to 19th century). Selections are read in manuscript to prepare students to read works in form in which they are likely to encounter them in their research.


250A-250B-250C. Islamic Texts in Chagatay. (4-4-4) Seminar, two hours. Requisites: courses 220A, 220B, 220C. Specific issues and trends in development of Turkish literature from middle of 19th century to the present.

250A-250B-250C. Islamic Texts in Chagatay. (4-4-4) Seminar, two hours. Requisites: courses 220A, 220B, 220C. Specific issues and trends in development of Turkish literature from middle of 19th century to the present.

250A-250B-250C. Islamic Texts in Chagatay. (4-4-4) Seminar, two hours. Requisites: courses 220A, 220B, 220C. Specific issues and trends in development of Turkish literature from middle of 19th century to the present.

250A-250B-250C. Islamic Texts in Chagatay. (4-4-4) Seminar, two hours. Requisites: courses 220A, 220B, 220C. Specific issues and trends in development of Turkish literature from middle of 19th century to the present.
Adjunct Professors
Margaret N. Shouse, Ph.D.
Ronald Szymusiak, Ph.D.

Visiting Assistant Professor
Edward J. Wagner, Ph.D.

Scope and Objectives
The Department of Neurobiology offers advanced training leading to the Ph.D. degree. Graduates can anticipate an academically oriented career at the college or university level or as a basic science researcher at a research institute or biotechnology company. In accord with this, the department strives to produce graduates soundly qualified both for teaching at the college or university level and for the conduct of original research in neurobiology.

The overall objective of the Ph.D. program is to provide a strong theoretical and practical foundation in the area of cellular and systems neurobiology, with the goal to develop a better understanding of normal and pathological brain function and behavior. The graduate program provides (1) basic and advanced instruction in the fundamentals of neuroscience, (2) advanced independent research training in the areas of cellular, structural, and systems neurobiology, and (3) teaching experience in undergraduate, graduate, and professional (dental and medical) courses in neuroscience. The program is targeted toward highly qualified and self-motivated doctoral students who take advantage of a flexible curriculum characterized by extensive informal and formal interactions with faculty in small groups and on an individual tutorial basis. The curriculum is structured to allow students extensive opportunities for critical examination of contemporary neuroscience literature and research and for the development of oral and written communication skills.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.) 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. 107B. Subject in the period from 1650 through the 19th century. Illustrated lectures, class discussion, and required readings from selected texts.

M169. History of Neurosciences. (Formerly numbered M246.) (Same as Neurobiology M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

Graduate Course
596. Directed Individual Studies in Medical History. (2 to 13) 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 specific issues or 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 experimental techniques in physiology from the early 19th to latter 20th centuries, including heart and circulation, hormones, nutrition and vitamins, the 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.

M169. History of Neurosciences. (Formerly numbered M246.) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

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. Individual contract required. P/NP or letter grading.
199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in anatomy and related subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Formerly numbered M209A.) (Same as Molecular, Cell, and Developmental Biology CM220 and Neuroscience M201.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. Letter grading.

M200C. Sensory Systems Neurobiology. (3) (Formerly numbered 200C.) (Same as Neuroscience M221.) Lecture, one hour; discussion, one hour; laboratory, one hour. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfactory transduction, vision, and somatosensory system. Letter grading.

200D. Motor Systems Neurobiology. (4) Lecture, four hours. Fundamental topics in motor systems neurobiology, including motor neurons, motor units, and motoneuron pools, spinal motor control, reflexes, locomotion, basal ganglia, cerebellum, and eye movements. Letter grading.

200E. 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, neuroendocrine systems, circadian timing, sleep and dreaming, psychosexual development, motivation, reward and 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: Biology 199, Cellular, Cell, and Developmental Biology 171 or Physiological Science 166, and 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 secondary messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neuroscience M202, 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.

211. Cellular Basis of Learned Behavior. (2) Lecture/discussion, one two-hour session; laboratory, to be arranged. Preparation: microscopic anatomy, mammalian physiology and physiology of cerebral processes in alerting, learning, focusing attention, and memory. S/U or letter grading.

M227. Neuroendocrinology of Reproduction. (4) (Same as Physiological Science M227.) Lecture, three hours; discussion, one hour. Preparation: undergraduate life sciences and chemistry courses. Structural, functional, and developmental aspects of neuroendocrine and reproductive organs, with emphasis on feedback regulatory mechanisms between hypothalamic-pituitary and gonadal functions and on functional integration of neuroendocrine-reproductive axis at cellular and molecular levels. Letter grading.

M229. Oral Embryology and Histology. (4) (Same as Oral Biology M229.) Lecture, four hours. Lectures and laboratory instruction in development and histological structure of facial region and oral and peri-oral organs and tissues. Letter grading.

M234. Seminar: Developmental Neuroendocrine-immunology. (2) (Same as Oral Biology M234.) Seminar, two hours. Designed for graduate students. Psychological and physiological processes intertwine, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from a developmental perspective. S/U or letter grading.

251. Problems in Developmental and Comparative Immunology. (2) Lecture/discussion, two hours. Review of current literature emphasizing early development and evolution of immune competence. S/U or letter grading.


265. Review of current literature emphasizing appearance of tumors and neoplasms in representative invertebrates, fishes, amphibians, and reptiles. Theories of cancer development from the evolutionary viewpoint. S/U or letter grading.

270A-270B-270C. Cell, Molecular, and Integrative Biology, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U grading.

295. Culture of Neurobiology. (2) Discussion, one hour. Outside readings, classroom discussions, short write-ups, and student presentations on current issues in neurobiology. 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.

298A-298B-298C. Advanced Topics in Neurobiology. (2-2-2) Seminar, one hour; discussion, one hour. Advanced seminar courses in neurobiology to be offered by different departmental faculty members. Topics: advanced topics in neurobiology. S/U 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.


NEUROLOGY

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Christopher M. DeGioio, M.D., Vice Chair
Hugh B. McIntyre, Jr., M.D., Ph.D., Acting Vice Chair, Harbor-UCLA
Alan Shewmon, M.D., Vice Chair, Olive View-UCLA
Claude G. Wasterlain, M.D., Vice Chair, VA Southern California

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 coordinated basic science and clinical research approach to neurological disorders, patient care, and neurological education.

The department instructs medical students throughout the four years. Emphasis in the first year is on basic aspects of neuroanatomy, chemistry, and physiology; in the second year, neurological history taking and neurological examination of afflicted patients are stressed. The third year consists of a clerkship, and the
fourth year provides electives in neurology, including an advanced clinical clerkship.

Graduate students and postdoctoral candidates are trained in both the basic and clinical laboratories.

For further details on the Department of Neurology and a listing of the courses offered, see http://www.neurology.ucla.edu.

## Neuroscience

### Upper Division Course

199. Special Studies. (2 to 8) Discussion, one to two hours; laboratory, four to six hours. Individual projects carried out under direction of a faculty member. Special studies in neurology, with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students.

### 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

#### Neuroscience B.S.

#### Preparation for the Major

**Life Sciences Core Curriculum**

*Required:* Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 1A4, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C; one course from Statistics 10 or 13 or, by petition, Biostatistics 100A or 110A.

All core curriculum courses must be passed with a grade of C– or better and must be completed with an overall grade-point average of 2.0 or better. Students are encouraged to fulfill the preparation requirements prior to enrollment in courses for the major. Transfer students are counseled on an individual basis.

In fulfilling the College general education requirements, students are encouraged to select courses that complement the major; Psychology 10 is recommended.

#### 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 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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

### The Major

The following 12 courses are required for the Neuroscience major. Consult respective departmental or program listings for course descriptions:

**Group 1:** Neuroscience M101A, M101B, M101C, 102, Chemistry and Biochemistry 153A, 153L

**Group 2:** Three electives (one from each area) as follows:

- **Area 2B:** One systems and integrative neuroscience course from Ecology and Evolutionary Biology M173, Neuroscience M119N, M130, M145, 191B, Physiological Science C126, 138, C144, 147, Psychology 112B, 119A, 119B, 119M, 119P, 120B, 120D
- **Area 2C:** One molecular, cell, and developmental neuroscience course from Molecular, Cell, and Developmental Biology C139, Neuroscience M130, M145, M148, 151, 191C, Physiological Science C126, 147

**Group 3:** One research-related course from the following: Neuroscience 101L (one term) or 199 (two terms) or 198A and 198B (one term in each course) or Psychology M181A and M181B (with approval of the neuroscience curriculum committee before start of project; one term in each course). All majors who elect to do two terms (one term applies toward Group 3 and one toward Group 4) of Neuroscience 198A and 198B or 199 or Psychology M181A and M181B must do one term of Neuroscience 99 in the same laboratory. In addition, they must submit a poster to the neuroscience undergraduate poster session or the curriculum committee prior to graduation.

**Group 4:** Two additional elective courses from the Group 2 or 3 list or from Neurobiology/Medical History M169 or Physiological Science 135. Students who select two terms of Neuroscience 198A and 198B or 199 or Psychology M181A and M181B must select only one additional elective to satisfy Group 4.

Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

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. All required and elective courses must be taken for a letter grade, and a C average must be maintained 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. Requirements for admission include completion of at least 40 units toward the preparation for the major with a 3.2 grade-point average and an overall GPA of 3.2 at UCLA. Applications and program requirements are available in the Neuroscience Undergraduate Office, 1506D Gonda Center. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program. 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.

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 102 and from Groups 2, 3, and 4 as listed under the Neuroscience major.

No more than two courses may be applied toward both this minor and a major or minor in another department or program. All minor courses must be taken for a letter grade, with 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 Graduate Program for the graduate course offerings.

Upper Division Courses


M101A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 24 or 30A (14C may be taken concurrently), Life Sciences 2, Physics 1B or 6B. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C– or better is required to proceed to Physiological 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 Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115, Life Sciences 3, 4. 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.

M101C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.

101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses M101A, M101B (M101B may be taken concurrently). Not open for credit to students with credit in the Psychology 116. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular and cell biology to behavioral. Hands-on experience with important methodology and experimental approaches in neuroscience.


M119L. Human Neuropsychology. (4) (Same as Psychology M119L.) Lecture, three hours. Requisites: courses M101A and M101C (or Psychology 115), Psychology 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions; may be repeat graded. P/NP or letter grading.

M119N. The Visual System. (4) (Same as Psychology M119N.) Lecture, three hours. Requisites: course M101A or Molecular, Cell, and Developmental Biology 171 or Physiological Science 111A or Psychology 115. The ability to image and analyze the visual world is a truly remarkable feat. Coverage of anatomy and physiology of visual processing from the retina to visual cortex through lectures, extensive reading, and discussions.

M130. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Physiological Science M181, Psychiatry M181, and Psychology M117J.) Lecture, three hours. Requisite: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Physiological Science 111A or Psychology 115. Underlying brain systems involved in normal and neurologically disorders, including schizophrenia, depression, bipolar disorder, obsessive/compulsive disorder. Provides basic understanding of brain dysfunctions that contribute to disorders. Tests which are typically used for pharmacological treatments. P/NP or letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Physiological Science M145J.) Lecture, four hours. Requisite: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science 111A or M180A) or Chemistry 153A. Consideration of brain function, with focus on cellular physiology and functional neuroanatomy. Topics include neuronal excitability and synaptic transmission and function of specific neuronal circuits in auditory pathway, basal ganglia, cerebellum, hippocampus, and neocortex. Letter grading.

151. Transgenic Models and Gene Transfer Technology in Understanding and Treatment of Neuropsychiatric Disease. (4) Lecture, three hours. Requisite: course M101B. Genetic defects in neuropsychiatric disease; how genome is experimentally manipulated to understand more about role of genes in normal development of brain and in disease. Required student participation in discussions.

C172. Neuroimaging and Brain Mapping. (4) Lecture, three hours. Requisite: course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180A or Psychology M117A) or Molecular, Cell, and Developmental Biology 171 or Physiological Science 111A or Psychology 115. Strongly recommended: course 102, Theory, methods, applications, assumptions, and limitations of neuroimaging. Techniques, biological questions, and results. Brain structure, brain function, and their relationship. Discussion with regard to imaging. Conclusively performed with course CM272. Letter grading.

C177. Drugs of Abuse from Neurobiology to Policy and Education. (4) (Formerly numbered C195.) Lecture, four hours. Comprehensive analysis of neurobiology of substance abuse, current policy issues, and societal consequences. Concurrently scheduled with course C277. Letter grading.

191A-191B-191C. Variable Topics Research Seminars: Neuroscience. (4-4-4) (Formerly numbered 197A-197B-197C.) 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 specified area of group 2. Each course may be repeated once for credit. P/NP or letter grading.


191H. Honors Seminars: Neuroscience. (4) (Formerly numbered 196H.) Seminar, four hours. Preparation: one statistics course (Statistics 10 or equivalent). Limited to neuroscience honors program students. Instruction in principles of scientific method, ethics, and written and oral communication; critique of current journal articles and research projects. Presentation of individual research. May not be applied toward elective requirements for major. Must be taken during Winter Quarter of academic year that students enroll in courses 198A and 198B. Letter grading.

198A. Honors Research in Neuroscience. (4) (Formerly numbered 199HA.) Tutorial, 12 hours minimum. Requisites: courses 99, M101A. Limited to neuroscience program students. Directed independent study involving extensive reading and development of honors thesis or comprehensive project under direct supervision of faculty mentor. 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) (Formerly numbered 199HB.) Tutorial, 12 hours minimum in laboratory. Requisite: course 198A, continued reading and research that contributes toward honors thesis under direct supervision of faculty mentor. 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. Letter grading.

199. Directed Research in Neuroscience. (4) Tutorial, 12 hours minimum. Requisites: courses 99, M101A. Limited to junior/senior Neuroscience majors with grades of B (3.0) or better. Directed independent research or investigation under guidance of faculty mentor. Culminating paper or project required. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. Letter grading.

Course List

Ecology and Evolutionary Biology

M173. Anatomy and Physiology of Sense Organs

Molecular, Cell, and Developmental Biology

C139. Cell, Developmental, and Molecular Neurobiology

Neurobiology/ Medical History

M169. History of Neurosciences

Physiological Science

C126. Biological Clocks

135. Dynamical Systems Modeling of Physiological Processes

136. Neuromuscular Physiology and Adaptation

C144. Neural Control of Physiological Systems

146. Principles of Nervous System Development

147. Neurobiology of Learning and Memory

177. Neuroethology

Psychology

110. Fundamentals of Learning

112A. Basic Processes of Motivated Behavior

112B. Psychobiology of Fear and Anxiety

118. Comparative Psychobiology
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 multi-level analytical tools of molecular, cellular, systems, and/or behavioral biology, as well as quantitative approaches from the fields of mathematics, physics, and engineering. Students working at one or two analytical levels nevertheless learn to appreciate the methods and advantages of other levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduation Division website, http://www.gdnnet.ucla.edu. 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. (6) (Same as Molecular, Cell, and Developmental Biology CM220 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 neurotrophic factors. Letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M200F and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Molecular, Cell, and Developmental Biology 171 or Physiological Science 166, and 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.

M203. Neuroanatomy: Structure and Function of Nervous System. (4) (Formerly numbered M203A-M203B.) (Same as Biomedical Engineering M263A.) 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 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. (4) (Formerly numbered M244.) (Same as Neurobiology M200A.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topics areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neuronal circuitry, and imaging. Letter grading.

205. Systems Neurosciences. (4) Lecture/discussion, four hours. Introduction to fundamentals of systems neuroscience, with emphasis on integration of molecular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Neuroengineering. (4) (Same as Biomedical Engineering M260.) Lecture, four hours; laboratory, three hours. Requisites: Mathematics 32A, Molecular, Cell, and Developmental Biology 100, 171. Introduction to principles and technologies of neural recording and stimulation. Neurophysiology; clinical electrophysiology (EEG, evoked potentials, inverse problem, preoperative brain recording), extracellular microelectrodes and recording (field potentials and single units), chronic recording with extracellular electrodes; electrode biocompatibility, tissue damage, electrode and cable survival; intracellular recording and glass pipettes electrodes, iontophoresis; imaging neural activity (Ca imaging, voltage-sensitive dyes), intrinsic optical imaging; MRI, fMRI. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debates on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals in biomedical research, conflict of interest, technology, and scientific integrity. S/U grading.


M220. Biology of Learning and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neurobiology M200G, and Psychology M220.) 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.

M221. Sensory Systems Neurobiology. (3) (Same as Neuroscience M200C.) Lecture, one hour; discussion, one hour. Laboratory, one hour. Fundamental topics in sensory systems neurobiology, including sensory transduction, taste and olfaction, audition, vision, and somatosensory system. Letter grading.

M230. Molecular and Cellular Mechanisms of Neural Integration. (5) (Same as Psychological Science M210 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: course M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

M233. Mechanisms and Relief of Pain. (2) (Same as Oral Biology M204.) Advanced treatment of neuromechanical, neurophysiological, and biochemical bases of pain perception. Topics include classical pain theories, pain receptors and pathways, endogenous mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders.
255. Functional Organization of Behavior. (2) (Formerly numbered M255.) Lecture, two hours. Changes in neurotrophic 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 potentiation of neurotransmission. S/U or letter grading.


M263. Neural Mechanisms Controlling Rhythmic Movements. (4) (Same as Physiological Science M263.) Prerequisite: Physiological Science 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.

M266A-M266B-M266C. Seminars: Cellular Neuroscience. (2 to 4 each) (Same as Physiological Science M295A-M295B-M295C.) Seminar, two to four hours. Prerequisite: course M202. Selected topics in sensory and motor systems, cellular integration, synaptic processing, central nervous system function, and learning. Students required to present two-hour seminar. S/U or letter grading.

M267. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M266 and Psychiatry M266.) Lecture, four hours. Starting 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. (4) (Same as Psychiatry M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phenomena of memory arise. Discussion of invertebrate memory, central conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

274. Computational Neuroscience. (4) Lecture, 90 minutes; discussion, 90 minutes. Prerequisites: courses M201, M202. Systematic introduction to computational neuroscience and hands-on experience in neural simulations. Computational models at synaptic, neuronal, and network levels. Sensory, motor, memory, and attentional systems and some higher cognitive functions, including language and consciousness. S/U or letter grading.

275. Advanced Techniques in Neurobiology. (2) Lecture, one hour; laboratory, one hour. Preparation: basic biology and chemistry. Designed to provide introduction and, when possible, practical demonstration of a number of techniques used in neurochemical research. Use of 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. (4) (Formerly numbered C295.) Lecture, four hours. Comprehensive analysis of neurochemistry of substance abuse, current policy issues, and societal consequences. Concurrently scheduled with course C177. 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 the University. May be repeated for credit. S/U grading.

495. Methods in Neuroscience Public Education. (2) Seminar, one hour; fieldwork, six hours. Designed for juniors/seniors and graduate students. Training and supervised practicum for students in teaching, presentation techniques, and public outreach of neuroscience principles. Hands-on experience through fieldwork in approved community setting. Students assist in preparation of educational materials and development of innovative programs. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.


599. Dissertation Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.

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Associate Professors

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Lynn V. Doering, R.N., D.N.Sc., F.A.A.N.

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Donna K. McNeese-Smith, R.N., Ed.D.

Wendie A. Robbins, R.N., Ph.D., F.A.A.N.

Mary A. Wue, R.N., D.N.Sc., F.A.A.N.

Assistant Professors

Jill F. Berg, R.N., Ph.D.

David Elashof, Ph.D.

Lorraine S. Evangelista, R.N., Ph.D.

Mary N. Forstw, R.N., Ph.D.

Karen H. Gyllis, R.N., Ph.D.

Mary Sue V. Heilmann, R.N., Ph.D.

Sally L. Maliski, R.N., Ph.D.

Janet C. Mentes, R.N., Ph.D.

Valda V. Upenieks, R.N., Ph.D.

Dorothy J. Wile Jr., R.N., Ph.D.

Diana L. Woods, R.N., Ph.D.

Lecturers

Elizabeth A. Bowers, R.N., M.S.N.

Lynn V. Doering, R.N., M.S.N.

Mary L. Canobbio, R.N., M.N., F.A.A.N.

Lori A. Cutler, R.N., M.N.

Maggie Dewan-Smith, R.N., M.S.N.

Gayle J. Early, R.N., M.S.N.

Jan M. Fredrickson, R.N., M.N.

Young Kee Markham, R.N., M.N.

Nancy E. McGrath, R.N., M.S.N.

Josephine D. Ortiz, R.N., M.S.N.

Dale R. Perry, R.N., M.S.N.

Deborah A. Rice, R.N., M.S.

Jennifer J. Smith, R.N., M.S.N.

Adjunct Associate Professors

Mary P. Cadogan, R.N., Dr.P.H.

Anna Gawlinski, R.N., D.N.Sc.

Colleen K. Keenan, R.N.C., Ph.D

Adjunct Assistant Professors

Suzette Cardin, R.N., D.N.Sc., F.A.A.N.

Joan E. Hahn, R.N., D.N.Sc.

Scope and Objectives

The UCLA School of Nursing gives direction to interested potential applicants through monthly admissions counseling sessions. Students interested in the academic programs offered are urged to attend a counseling session. The schedule of admissions counseling dates, applications, and program information can be found at http://www.nursing.ucla.edu or by calling the Student Affairs Office at (310) 825-7181 Tuesday through Thursday.

History and Accreditation

In 1949 The Regents of the University authorized the School of Nursing as one of the professional schools of the UCLA Center for the Health Sciences. This action paved the way for the development of an undergraduate basic program in Nursing leading to the Bachelor of Science degree and made possible the establishment of a graduate program leading to the Master of Science degree. In 1966 the Master of Nursing (M.N.) degree was established as an alternate option to the M.S. degree. The Master of Science degree program was discontinued in 1969. The Regents approved the Doctor of Nursing Science (D.N.Sc.) degree program in 1986, and in Fall Quarter 1987 the first doctoral students were admitted. In 1996 the Office of the President and The Regents approved the change in the master's degree designation from M.N. to Master of Science in Nursing (M.S.N.); the change in doctoral degree designation from D.N.Sc. to Ph.D. in Nursing was approved in 1995.
The B.S. degree curriculum was revised in 1997 to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. The first group of students began their studies in the summer of 1997.

The School of Nursing master’s nurse practitioner program has Board of Registered Nursing approval, as did the nurse-midwifery program prior to being discontinued in fall 2004. In 2001, the Commission on Collegiate Nursing Education accredited the baccalaureate and master’s degree programs for a term of 10 years.

Undergraduate Study

Nursing B.S.

The baccalaureate program leading to the Bachelor of Science degree provides for a close interweaving of general and professional education. The physical, social, and emotional health aspects of nursing are emphasized throughout the curriculum. Clinical nursing experience under the guidance of faculty members is provided in hospitals, outpatient clinics, homes, and community health centers.

Admission

The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission, beginning in the junior year, is based on licensure as a registered nurse and a minimum of one year of full-time experience as an R.N. within the past five years, completion of requisite courses, scholarship, and attainment of a passing score on four Excelsior College Examinations. Students must have grades of C or better in requisite courses and an overall grade-point average of 3.0 or better. Three letters of recommendation are also required. Diverse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated. Consideration is also given to social and economic disadvantage such as educational background, heavy work schedule during school, housing conditions, family responsibilities, and mastery of physical disabilities. Completed applications should reflect clearly identified career goals and documentation of potential in advanced practice nursing.

Applications for acceptance to the baccalaureate program must be filed no later than November 30 for the next Fall Quarter. The School of Nursing admits students each Fall Quarter. In addition to the regular UC Application for Undergraduate Admission and Scholarships which must be returned in the self-addressed envelope included in the packet, an application must be filed with the school by November 30. This application is available directly from the Student Affairs Office, School of Nursing, UCLA, Box 951702, Los Angeles, CA 90095-1702.

Degree Requirements

Students must complete 180 quarter units of college work and satisfy the general University requirements as follows:

1. Completion of all required general education courses as specified for completion both prior to admission and/or at UCLA: human anatomy (one course), sociocultural anthropology (one course), humanities (one or more courses), English composition (two courses), mathematics (one course), introductory or general microbiology with laboratory (one course), human nutrition (one course), introductory physics (one course or one year of high school physics with laboratory with a grade of B or better), human physiology (one course), introductory psychology (one course), introductory sociology (one course), and electives as needed

2. Completion of a block of 30 units of credit by examination administered by the Excelsior College Examination Service in Adult Nursing, Fundamentals of Nursing, Maternal and Child Nursing-AD, and Psychiatric/Mental Health Nursing (this unit credit applies to the Nursing major only)

3. Completion of 76 to 88 units of lower and upper division coursework in residence, including Biostatistics 100A, Chemistry and Biochemistry 14A, 14B, 14C, Epidemiology 100, Life Sciences 2, 3, Nursing 102, 104, 107, 171A, 171B, 172, 173, 174, 200, 220, and one or more courses from 213A, 214F, 216F, and three 4-unit electives

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.

All required nursing courses in the school must be completed with a grade of C or better in each course.

Study Lists

Students may not enroll in more than four courses per term unless a petition is approved in advance by the associate dean.

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 overall grade-point averages. The levels of honors and the requirements for each level are: summa cum laude, an overall average of 3.633; magna cum laude, 3.533; cum laude, 3.518. To be eligible students must have completed at least 98 University of California units for a letter grade. See the Schedule of Classes for the most current calculations of Latin honors.

School of Nursing Faculty Award

The Faculty Award for excellence in nursing, established in 1965, is awarded to a student graduating from the bachelor’s and the master’s program with the highest grade-point average in all nursing courses.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Doctor of Philosophy (Ph.D.) degree in Nursing. A concurrent degree program (Nursing M.S.N./Management M.B.A.) is also offered.

Nursing Upper Division Courses

102. Professional Nursing in Culturally Diverse Communities. (5) Lecture, four hours; community experience, three hours. Introductory course to assist registered nurses in transition to professional nursing in context of a complex and dynamic health care system. Analyzes include individual and population-based approaches to health care in dynamic multicultural communities. Letter grading.

105. Human Physiology. (4) Lecture, three hours; discussion, one hour. Designed for nursing students. Lecture and discussion, with emphasis on a correlating approach to anatomy and physiology of human body. P/NP or letter grading.

M158. Culture, Illness, and Healing. (4) (Same as Anthropology M168.) Lecture, four hours. Medical anthropology is organized around holistic exploration of ways in which health, illness, and medical practices are socially and culturally mediated. Topics include comparing illness experiences, understandings about health and illness, patterns of care seeking, therapeutic practices, and medical systems in context of different social and cultural settings, including our own. P/NP or letter grading.

170. Issues in Providing Health Care to Culturally Diverse Populations. (4) (Formerly numbered 196.) Lecture, three hours; discussion, one hour. Open to non-nursing students with consent of instructor. Theoretical and experiential course designed to provide base for understanding issues of providing health care to culturally diverse populations, with emphasis on strategies to facilitate intercultural/intracultural communication and intergroup/ingroup dynamics in health care settings. P/NP or letter grading.

171A. Community Health Nursing. (3) (Formerly numbered 190.) Lecture, three hours. Enforced prerequisite: course 102. Theoretical content focuses on population-based nursing concepts as they apply to health promotion and disease prevention among individuals, families, and small aggregates within communities. Letter grading.
171B. Community Health Nursing. (3) Clinical, nine hours. Corequisite: course 171A. Clinical concentration in community health nursing practice in multicultural community health nurse settings, including clinics, maternal and child health care agencies, shelters for homeless persons, mental health centers, occupational health, childcare agencies, and schools. Community health nursing practice focuses on community as context for health promotion and disease prevention among individuals, families, and community groups with awareness of psychosocial and environmental factors. Letter grading.

171C. Public Health Nursing. (3) Lecture, three hours. Requisites: courses 171A, 171B. 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. Letter grading.

171D. Public Health Nursing. (3) Clinical, nine hours. Corequisite: course 171C. Clinical concentration in population-based public health nursing in culturally diverse settings, including health departments, health policy institutions, and public service agencies. Public health nursing focuses on health promotion and disease prevention at level of communities, aggregates, whole populations, and systems, both domestically and internationally. Letter grading.

172. Nursing Management. (3) (Formerly numbered 195.) Lecture, two hours; field study, three hours. Requisite: course 102. Management theory applied to nursing practice. Acquisition of basic knowledge of management concepts and skills as practiced in organizational structures and community health care settings. Letter grading.

173. Introduction to Research. (4) (Formerly numbered 192.) Lecture, four hours. Introduction to planning research project based on simple question. Specific components of research activities analyzed: specific aims and study purposes, variable definition, sample selection, data collection tools, data analyses, and ethical conduct in research studies. Critique of research reports. P/NP or letter grading.

174. Physical Assessment. (4) (Formerly numbered 192.) Lecture, three hours; laboratory, three hours. Designed to provide in-depth review and synthesis of physical assessment skills and knowledge covering life span. Individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required text. Letter grading.

179. Individual Studies in Nursing. (2 to 4) (Formerly numbered 199.) Tutorial, one hour. Limited to junior/senior Nursing majors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Health-Related Quality of Life. (2) Lecture, two hours. Theories 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 biobehavioral foundations of health-related quality of life. Letter grading.

202. Philosophy of Nursing Science. (4) Lecture, four hours. Exploration of concepts of importance related to nursing science, philosophy of science as context for study of philosophy of nursing science. Philosophical tenets and genealogies of thought that underlie key theoretical concepts in nursing science and domains of nursing (person environment, health, and nursing). Letter grading.

203. History of Nursing Thought. (2) Lecture, two hours. Analysis and evaluation of contextual themes which influenced development history of science, philosophy of science as context for history of nursing science. Examination of nursing’s historical influence on socio-political environment. Letter grading.

204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 173 or equivalent upper division basic research methodology course. Complex research designs and analysis of multiple variables, and research utilization. Emphasis on 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 components of design problems and how these are applied to clinical settings. Letter grading.

205. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisite: course 202. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, focus groups), data analysis, and data interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.


207. Research in Nursing: Measurement of Clinical Variables. (4) Lecture, three hours; discussion, one hour. Requisites: courses 204, 205. Introduction to wide array of research designs and measurement techniques for testing clinical nursing phenomena. Emphasis on dynamic interaction between research process and theory, as well as on comparative analyses of various designs, content analysis, use of appropriate statistical errors of measurement, and sensitivity problems. Letter grading.

208. Research in Nursing: Measurement of Outcomes. (4) Lecture/discussion, three hours. Requisites: courses 206, 207. Measurement theories, including topics related to scaling and tool development. Emphasis on opportunity to develop knowledge and skills through course content and individualized direct involvement in a clinical research project. S/U or letter grading.

209. Human Diversity in Health and Illness. (2) Lecture, two hours. Human diversity in response to illness that nurses diagnose and treat, centering on culture and human belief systems associated with diverse orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

211. Theoretical Foundations of Women’s Health Care during Reproductive Years. (4) (Formerly numbered 211F) Lecture, three hours; discussion, one hour. Theory and research on assessment and management of health problems involving 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 defined broadly to include nontraditional families; consideration of cross-cultural views of families as well. Identification of limitations of current theory and research related to family study and applicability of current knowledge to various problems encountered in care of families. Letter grading.

213A. Occupational Health Nursing Role and Theory. (4) Lecture, four hours. Introduction to multidisciplinary occupational health environment, including work settings, occupational health nursing scope and standards of practice, and legal and regulatory issues that affect occupational health nursing. Letter grading.


217. Human Responses to Critical Illness. (2) Lecture, two hours. Requisite: course 216. Builds on pathophysioligic concepts and nursing management of critically and acutely ill adults presented in course 216. Emphasis is on synthesis, research theory, and experiential knowledge and skills to provide advanced preparation for acute care advanced practice nurses. Letter grading.
217F. Human Responses to Critical Illness. (4) Lecture, three hours; discussion, one hour. Requisite: course 216F. Biologic and pathophysiologic concepts and nursing management of acute and critically ill adults presented in course 216F. Emphasis on synthesis of research, theory, and experiential knowledge and skills to provide advanced preparation for acute care advanced practice nurses. Letter grading.


218B. Nursing Administration Theory. (4) Lecture, four hours. Requisite: course 218A. Focus on synthesizing organizational and management theories in relation to strategic planning and management, changing care delivery systems, human and financial resources, management decision making, management information systems, professional practice, and meeting accreditation and legal standards. Letter grading.

218C. Nursing Administration Theory. (4) Lecture, four hours. Requisite: course 218B. Project management, organizational communication, governance, development of policies and procedures, and change agents within the organization, risk management, liability, and ethics of administration decision making. Emphasis on issues affecting local, national, and international health care management. Letter grading.


219A. Essentials of Accounting and Budgeting in Health Care Organizations. (4) Lecture, four hours. Theories of management, organization, and administration presented in relation to techniques of accounting, budgeting, finance, and health care economics. Focus on definition of terms and concepts, followed by practical applications within a variety of health care settings. Letter grading.


220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. Theories of learning, curriculum and program development, and principles and techniques of evaluation. Examination of educator role of advanced practice nurse in variety of settings and with diverse cultural and socioeconomic groups. Opportunities provided for skill development in use of computer-based information systems and development of instructional aids. Letter grading.

222. Immunosuppression and Patient Care. (2) Lecture, two hours. Research related to immunosuppression, its causes, clinical manifestations, and modifiers. Special emphasis on physiologic and pathophysiologic mechanisms of immunosuppression as a basis for information used in patient education and clinical decisions, and supportive treatments and modifiers. Letter grading.


225A-225B. Pharmacology for Advanced Practice Nurses. (3-2) Formerly numbered 2225.) Lecture, two hours. Course 225A is enforced requisite to 225B. Knowledge of and application to pharmacology necessary for advanced practice nurses who have clients/patients with stable acute or chronic conditions. Letter grading.

229. Biologic/Psychologic Interface in Health and Illness. (2) Lecture, two hours. Interaction of physiologic, behavioral, and psychosocial factors in illness, and theory and research underlying these factors, including determinants of health, presence of gender, ethnicity, and culture. Letter grading.

230A-230B. Advanced Pathophysiology. (2-2) Formerly numbered 230L.) Lecture, two hours. Requisite: course 105 or equivalent taken within past five years. Course 230A is enforced requisite to 230B. In-depth examination of pathophysiologic processes that underlie human illness and disease, with detailed study of these in major body systems. Examination of manifestations of and responses to processes of cellular and molecular pathology at extracellular, systemic, and human levels. Letter grading.


232. Human Responses to Aging and Chronic Illness. (2) Lecture/discussion, four hours. Pathophysiologic 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 gerontologic nursing. Letter grading.

232F. Human Responses to Aging and Chronic Illness. (4) Lecture/discussion, four hours. Pathophysiologic 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 gerontologic nursing. Letter grading.

233F. Human Responses to Aging and Chronic Illness. (2) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice in gerontologic nursing. Letter grading.

235. Human Responses to Aging and Chronic Illness. (4) Lecture/discussion, four hours. Biopsychosocial concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice in gerontologic nursing. Letter grading.


241. Biobehavioral Foundations of Neuropsychiatric Assessment. (2) Lecture, two hours. Biologic and behavioral theories and research from variety of disciplines, including nursing, for application of neuropsychiatric assessment and diagnosis. Exploration of research underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing a behavioral nursing approach. Letter grading.

241F. Biobehavioral Foundations of Neuropsychiatric Nursing. (4) Lecture, four hours. Biologic and behavioral theories and research from variety of disciplines, including nursing, for application to neuropsychiatric assessment and diagnosis. Exploration of research underlying assessment and diagnosis of cognitive, addictive, and affective dysfunctions, with emphasis on developing a behavioral nursing approach. Letter grading.

242. Biobehavioral Foundations of Neuropsychiatric Nursing. (2) Lecture, two hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to neuropsychiatric dysfunction. Exploration of research underlying treatment interaction in cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.
242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral approaches and theories from a U.S. and international perspective. Critical examination of biologic and psychological theories, research methodologies, and measurement issues. Focus on discussion of historical development and progression of scientific inquiry. Discussion of ethical and policy implications of research findings in these research domains. Letter grading.

247. Research on Family, Community, and Health Systems. (4) Lecture, four hours. Prerequisite: course 246. Review of state of science in family, community, and health systems research conducted by nurses and health systems researchers. Critical examination of theoretical concepts, research methodologies, and measurement issues. Focus on discussion of historical development and progression of scientific inquiry and investigations by nurses. Discussion of ethical and policy implications of research findings in these research domains. Letter grading.

248A. Biobehavioral Sciences. (2 or 4) Lecture, two or four hours. Theoretical and research measurement issues related to one or more of following areas: health beliefs and health promotion, stress, cancer, ethics and end-of-life care, family and community, mental health, health education, and adherence to and utilization of prevention and treatment services. Ethical considerations in research in biobehavioral sciences and policy decisions that have impact on health status. Letter grading.

248B. Biologic Sciences. (2 or 4) Lecture, two or four hours. Survey course to explore ways in which physiologic theory informs nursing investigations. Examples of nurse scientists who reformulate physiologic theory to address nursing research questions and nursing interpretations of physiologic theory. Ethical considerations in research in biologic sciences and policy decisions that have impact on advancement of research. Letter grading.

248C. Health Disparities in Vulnerable Populations. (2 or 4) Formerly numbered 224.) Lecture, two or four hours. Theoretical and research design and measurement issues concerned with factors related to health disparities. Discussion of ethical considerations in research with vulnerable populations and policy decisions impacting health status. Analysis of research that describes, explains, and examines variables influencing health disparities and intervention strategies to reduce these disparities. Letter grading.

248D. Health Services. (2 or 4) Lecture, two or four hours. Evaluation of impact of systems of care on quality care outcomes in primary, secondary, and tertiary care centers. Discussion of ethical considerations and policies impacting health care services research. Research areas include quality of care, health care delivery systems, and outcomes measurement issues related to patients, families, professionals, and organizations. Letter grading.

264. Professional Issues in Nursing. (3) Lecture, three hours. Prerequisite: course 418A or 438A or 439A. Assessment of organizational, legal, ethical, and health care policy issues in relation to delivery of health care services by advanced practice nurses in evolving health care system. Letter grading.

M273. Advanced Seminar: Medical Anthropology. (2 to 4) (Same as Anthropology M263Q, Community Health M264A, 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.


295A. Nursing Science Seminar. (1) Seminar, one hour. Introduction to nursing research methods, activities, and programs within specialty strands at UCLA School of Nursing: biobehavioral sciences, biologic sciences, health disparities/vulnerable populations, and health services. Exemplar work of UCLA nurse scholars highlighted. Overview of nursing research at UCLA and potential research opportunities for doctoral study. S/U grading.

295B-295C. Nursing Science Seminars. (1-1) Seminar, one hour. Prerequisite: course 295A. Introduction to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements of various extramural and specialty organization funding sources, and evaluation criteria including role of seed money. Letter facilitates doctoral and postdoctoral research, research activities, and professional development. S/U grading.

298. Interdisciplinary Response to Infectious Disease Emergencies: Nursing Perspective. (4) Lecture, three hours; discussion, one hour. Designed to introduce graduate student nurses to the unique challenges of preparation and response to bioterrorism. Examination of challenges encountered in the healthcare system in preparing for and responding to a public health emergency. 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 research subjects. S/U grading.

299B-299C. Nursing Research/Laboratory Experiences. (4-4) Seminar/discussion, one hour; research/laboratory, three hours. Prerequisites: courses 202, 206. Seminars 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. (1 to 4) Seminar, one hour; discussion, one to four hours. Prerequisites: courses 206, 207, 208, 218B. Seminar to assist students to prepare for careers in academic settings, with focus on teaching. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation for apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

418A. Nursing Administration Practicum. (3 or 4) Clinic practicum, eight or 11 hours; clinical conference, one hour. Prerequisites: courses 219A, 219B. Experience in organizational setting for synthesizing content from course 218B, including strategic planning and management, care delivery systems, resource management, decision-making, management information systems, professional practice, and meeting accreditation and legal requirements. Letter grading.

418B. Nursing Administration Practicum. (3 or 4) Clinic practicum, eight or 11 hours; clinical conference, one hour. Prerequisites: courses 219A, 219B. Experienced in organizational setting for synthesizing and evaluating content from course 218B, including processes of project management, organizational communication, governance, development and change, diverse relationships within organization, risk management, liability, and ethics of administration decision making. Letter grading.

418D. Nursing Administration Residency. (12) Clinic practicum, 33 hours; clinical conference, one hour. Prerequisites: courses 219A, 219B. Experience in organization setting as students assume leadership role in planning, managing, and evaluating an administrative project. Synthesis of content from course 218D, including assessing community health care needs, marketing, media, and political action and health care policy. Letter grading.


438D. Pediatric Primary Care: Residency. (8) Clinical practicum, 24 hours. Requisites: courses 238C, 438C. Students assume primary responsibility for planning, managing, and evaluating care of children. Research, theory, and clinical knowledge analyzed, integrated, and applied to care of children and families with actual or potential health problems. Letter grading.


439B. Advanced Practice Nursing: Clinical Practicum. (6) Clinic practicum, 18 hours. 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. Letter 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.

509. Directed Individual Study or Research. (2 to 8) 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. (4 to 8) 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 8) 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.

OCCUPATIONAL THERAPY


461. Travel Occupational Therapy Practicum. (2 to 8) Practicum/residency in travel occupational therapy role, with emphasis on travel occupational therapy practice in selected populations. Developmental needs of clients in relation to family, social, and cultural structures. Letter grading.


OBSTETRICS AND GYNECOLOGY

David Geffen School of Medicine

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Chairs
Bartly J. Mondino, M.D. (Bradley R. Straatsma, M.D. Endowed Professor of Ophthalmology), Chair Sherwin J. Isenberg, M.D. (Grace and Walter Lantz Endowed Professor), Vice Chair, Harbor-UCLA Arthur L. Rosenberg, M.D., Vice Chair

Scope and Objectives

Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology and the Jules Stein Eye Institute (including the Doris Stein Eye Research Center) are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology.

The Department of Ophthalmology provides instruction to medical students during the 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/
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Wenyuan Shi, Ph.D., Chair

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Kenneth T. Miyasaki, D.D.S., M.S., Ph.D.
Shen Pang, Ph.D., In Residence

Assistant Professor
Fengxia Qi, Ph.D., In Residence

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://www.gdnet.ucla.edu. 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-201B-201C. Advanced Oral Biology. (3-2-3) Lecture, three hours/two hours/three hours:
201A. Ontogeny. (3) Lecture, three hours. Evolutionary perspective of cellular development from simple molecules that were formed during the first billion years of the Earth to development of cells, tissues, and organs of invertebrates and vertebrates. Development of vertebrate feeding apparatus from a comparative anatomical and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.
201B. Homeoestasis in Oral Systems. (2) Lecture, two hours. Normal regulatory functions of various oral systems. Topics include mechanisms of salivary secretion and nonsalivary protective mechanisms; integrative action of oral sensory systems such as touch, pain, and taste; normal control of movements in jaw and face. Letter grading.
201C. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of the oral cavity. Topics include microbiologically mediated demineralization of hard tissues, soft tissue infections, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or letter grading.

M202. Oral Embryology and Histology. (4) (Same as Neuroscience M229.) Lecture, four hours. Lectures and laboratory instruction in development and histological structure of facial region and oral and peri-oral organs and tissues. Letter grading.


M204. Mechanisms and Relief of Pain. (2) (Same as Neuroscience M234.) Advanced treatment of neuropathalologic, neurophysiological, and biochemical aspects of pain. Involves seminars in descriptive and inferential statistics and in research design of important methods of TMJ imaging.

202. Current Topics in Oral Immunology. (1) Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. (2) Lecture, one hour; laboratory, one hour. 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 the Temporomandibular Joint. (2) Anatomy, histology, physiology, and biomechanics of the temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensory/motor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging.

215. Fundamentals of Immunology. (2) Basic cellular and molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes.

226A-226B. Craniofacial Growth and Development. (2-2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/ seminar format, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics which aid their understanding and analysis of course content that has application to their specific and professional fields. In Progress (226A) and letter (226B) grading.

227. Dental Embryology and Histology. (2) Description and interpretation of important stages in development of the orofacial apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of the orofacial apparatus which are of significance to clinical dental specialists.

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. Classical mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders.

M234. Seminar: Developmental Neuroendocrine-immunology. (2) (Same as Neuroscience M234.) Designed for graduate students. Psychological and physiological processes interwined, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from a developmental perspective. S/U or letter grading.

260. Oral Biology Seminar. (2) Seminar, one hour; outside research, one hour. Research seminar to discuss faculty and student research of oral biology and related disciplines. Discussion of basic sciences related to oral biology, involving participants in important areas of investigation. S/U 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.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on applications in dental research.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.


Orthopaedic Surgery
David Geffen School of Medicine
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76-143 Center for the Health Sciences
Box 956902
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(310) 794-7930
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http://wwwortho.medsch.ucla.edu

Chair
Gerald A.M. Finerman, M.D.
Scope and Objectives

The medical student program in orthopaedic surgery is designed to provide experience in understanding the diagnosis and management of disorders of the musculoskeletal system. Through a combination of didactic instruction and supervised clinical experience, students acquire the clinical skills of history taking and physical examination of the musculoskeletal system. Diagnosis and orthopaedic management of bone and soft tissue trauma, skeletal development defects, tumor, spinal disorders, hand and foot disorders, and arthropathies are primary objectives. Third-year students work in ambulatory clinics and in inpatient services during their core surgical clerkship. Fourth-year electives provide the opportunity for in-depth experience on rotations at the UCLA Medical Center and affiliated institutions and emphasize subspecialties such as joint replacement, sports medicine, orthopaedic oncology, metabolic bone disorders, hand and foot surgery, spinal surgery, and pediatric orthopaedics.

For further details on the Department of Orthopaedic Surgery and a listing of the courses offered, contact the Education Office at (310) 825-6643 or see http://www.ortho.medsch.ucla.edu.

Pathology and Laboratory Medicine

David Geffen School of Medicine

UCLA

13-145G Center for the Health Sciences

Box 951732

825-6643

Los Angeles, CA 90095-1732

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Sharon L. Hirschowitz, M.D.

Klaus J. Lewin, M.D.

Scott D. Nelson, M.D.

Aarno Palotie, M.D., Ph.D.

Elaine F. Reed, Ph.D.

Nora Rozengurt, Ph.D.

Jonathan Said, M.D.

Kathleen M. Sakamoto, M.D., Ph.D.

Robert H. Schiestl, Ph.D.

Robert Striefer, M.D.

James G. Tidball, Ph.D.

Harry V. Vinters, M.D.

Linda G. Baum, M.D., Ph.D.

Anthony Adinolphi, Ph.D.

Professors Emeriti

Marcel A. Baluda, Ph.D.

Walter F. Coulison, M.D.

Harrison Latta, M.D.

Faramarz Naeim, M.D., in Residence

Donald E. Paglia, M.D.

Lawrence D. Petz, M.D.

David D. Porter, M.D.

George S. Smith, M.D.

Julien L. Van Lancker, M.D.

M. Anthony Verity, M.D.

Associate Professors

Anthony Butch, Ph.D., Clinical

Galen Cortina, M.D., Ph.D.

Clarses Lassman, M.D., Ph.D., in Residence

Paul Mischel, M.D.

Ayapann K. Rajasekaran, Ph.D.

Jian-Yu Rao, M.D.

Nagesh Rao, Ph.D., in Residence

Steven K. Takemoto, Ph.D.

Michael A. Teitel, M.D., Ph.D.

Peter Tontonoz, M.D., Ph.D.

Assistant Professors

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Lirong Cheng, M.D.

Sarah M. Dry, M.D.

Priscilla Figueroa, M.D.

Nicole A. Gillis, M.D.

Lee Goodgllick, Ph.D.

Kathleen A. Kelly, Ph.D., in Residence

Bencur Lee, M.D.

Xin Liu, M.D., Ph.D.

Frank Luo, M.D.

Sathima Natarajan, M.D.

David B. Seligson, M.D.

Alyssa Ziman, M.D., Ph.D.

Adjunct Professor

Sunita M. Bhuta, M.D.

Adjunct Assistant Professor

Robert Trelease, Ph.D.

Scope and Objectives

Pathology is, by definition, the science of disease. Its main purpose is to unravel disease mechanisms. Without it, progress in prevention, diagnosis, and therapy are left to chance. Yet, among medical disciplines, it is one of the youngest because scientific concepts of disease, based on direct observation of diseased organs, developed only in the last 150 years.

Once normal molecules, cells, and organs have been damaged, the result of the injury manifests itself by distortions of behavior at the molecular, cellular, and organ levels. The study of these injuries and reactions to injuries constitutes a body of knowledge well worth mastering for its own sake. Students, however, must also learn to use the existing tools or develop the new tools needed to dissect the events that follow injury. Although education in methodology is not, in principle, different in pathology from that in all other biomedical sciences, it is very different in scope.

A combined education in breadth and depth is indispensable; it is this education, as it is applied to injuries and reaction to injuries, that is the goal of the Ph.D. program in Cellular and Molecular Pathology.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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.

Upper Division Courses


C104. Histology and Cell Biology for Dental and Graduate Students. (6) (Formerly numbered Neurobiology 104.) Lecture, four hours; laboratory, six hours. Designed for dental students. Required of freshman dental students. Not open for credit to students with credit for former Neurobiology 104. Concurrently scheduled with course C204. P/NP or letter grading.

199. Directed Research in Pathology. (2 to 4) Tutorials, demonstrations, and laboratories dealing with structure and function of normal and pathological tissues and organs at microscopic level. Nervous system included. Concurrently scheduled with course C204. P/NP or letter grading.

Graduate Courses

200A. Dental Pathology. (3) Lecture, 90 minutes; laboratory, three hours. Fundamental causes of disease processes, using as examples selected lesions or diseases of major organ systems.

C204. Histology and Cell Biology for Dental and Graduate Students. (6) Lecture, four hours; laboratory, six hours. Required of dental students. P/NP grading.
### PEDIATRICS

**David Geffen School of Medicine**

**UCLA**

12-335 Davies Children’s Center
Box 951752
Los Angeles, CA 90095-1752

(310) 825-4128
fax: (310) 794-5200
http://www.pediatrics.medsch.ucla.edu

**Chairs**

Edward R.B. McCabe, M.D., Ph.D., Executive Chair
Sherin Devaskar, M.D., Executive Vice Chair and Vice Chair, Research

Judy Brill, M.D., Vice Chair, Clinical Affairs
Thomas S. Kittzen, M.D., Ph.D., Vice Chair, Academic Affairs

Lee Miller, M.D., Vice Chair, Medical Education
Adam J. Jonas, M.D., Chair, Harbor-UCLA
Mohammed Malekzadeh, M.D., Chair, Olive View-UCLA
Charles F. Simmons, Jr., M.D., Chair, Cedars-Sinai
Lawrence Robinson, M.D., Interim Chair, King/Drew

**Scope and Objectives**

The Department of Pediatrics encompasses five teaching hospitals: Mattel Children’s Hospital at UCLA and Olive View-UCLA, Harbor-UCLA, King/Drew, and Cedars-Sinai Medical Centers. The clinical program and teaching activities of the UCLA Medical Center are integrated with the Olive View-UCLA Medical Center. In the fundamentals of clinical medicine course, medical students receive detailed instruction in the techniques of the clinical examination of pediatric patients.

The required six-week clinical clerkship in pediatrics can be taken in any of the four programs (Mattel/Olive View-UCLA, Cedars-Sinai, Harbor-UCLA, King/Drew). In-depth electives in the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are the advanced clinical clerkships.

For further details on the Department of Pediatrics and a listing of the courses offered, see http://www.pediatrics.medsch.ucla.edu.

**Pediatrics Graduate Course**

**M215. Interdepartmental Course: Tropical Medicine.** (2) (Same as Medicine M215 and Pathology M215.) Lecture, two and one-half hours. Preparation: Introduction to the pathogenesis of infectious diseases, along with coverage of the major infectious diseases. Syllabus supplements topics covered in Classroom. S/U grading.

**M237. Molecular and Cellular Foundations of Disease.** (4) (Same as Biological Chemistry M237.) Lecture, two hours; discussion, two hours. Preparation: One course in molecular biology and biochemistry. Discussion of key issues in disease mechanisms, with an emphasis on the interactions of proteins, lipids, and carbohydrates. 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 may be toxic and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).

### PHARMACOLOGY

See Molecular and Medical Pharmacology

### PHILOSOPHY

**College of Letters and Science**

**UCLA**

321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

(310) 825-4351
fax: (310) 825-1722
http://www.humanities.ucla.edu

Calvin G. Normore, Ph.D., Chair

**Professors**

Joseph Almog, D.Phil.
Tyler Burge, Ph.D.
John P. Carriero, Ph.D.
Brian P. Copenhaver, Ph.D.
Barbara Herman, Ph.D. (Gloria and Paul Griffin Professor of Philosophy)
David B. Kaplan, Ph.D. (Hans Reichenbach Professor of Scientific Philosophy)
Gavin Lawrence, D.Phil.
D. Anthony Martin, Ph.D.
Calvin G. Normore, Ph.D.
Terence D. Parsons, Ph.D.

**Professors Emeriti**

Marilyn McCord Adams, Ph.D.
Robert Merrick Adams, Ph.D.
Keith S. Donnellan, Ph.D.
Phillipa R. Foot, M.A.
Herbert Morris, Ph.D.
Robert M. Yost, Ph.D.
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, in the following manner: two courses in each of three of the groups and one course in the remaining group.

Courses listed under Special Studies 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 (1) have a 3.7 grade-point average in UCLA philosophy courses and a 3.7 GPA in upper division UCLA philosophy courses; (2) satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper division philosophy courses supervised by the instructors of those courses; and (3) receive a grade of A– or better in any 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 198C or 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.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) and Doctor of Philosophy (Ph.D.) degrees in Philosophy.

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. (4) Lecture, three 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.

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 examination of theories 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) (Formerly numbered 5A) 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 the 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 select 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 emotions as contrasted with conveying truths, 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. (4) Lecture, three 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.

22. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22W. Recommended or required for many upper division courses in Group III. Systematic introduction to ethical theory, including discussion of egoism, utilitarianism, justice, responsibility, meaning of ethical terms, relativism, etc. P/NP or letter grading.

22W. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 22W. Introduction to major ethical theories in Western thought. Examination of works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, 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 and 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 requisite: course 100A. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes.

100C. History of Modern Philosophy, 1650 to 1800. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Courses 100A, 100B, and 100C should be taken in immediate successive terms if possible. Survey of development of metaphysics and theory of knowledge from 1650 to 1800, including Locke and 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.

M101B. Plato — Later Dialogues. (4) Same as Classics M146B.) Lecture, three hours; discussion, one hour. Preparation: course M101A. Study of selected topics in middle and later dialogues of Plato.

M102. Aristotle. (4) Same as Classics M147.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle.

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 the texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues.

M103B. Later Ancient Greek Philosophy. (4) Same as Classics M145B.) Lecture, three hours. Preparation: one course from 1, 100A, M101B, M102, M103A. Study of some major texts in Greek philosophy of the 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 the great age from Alfarabi, Averroes, 900 to 1200, considered in connection with Muslim theology and mysticism.


106. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and theology of Thomas Aquinas, Duns Scotus, and 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) 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 a 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 the Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C211.

C109. Descartes. (4) Preparation: course 21 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.

C110. Spinoza. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Study of philosophy of Spinoza. May be concurrently scheduled with course C210, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled.

C111. Leibniz. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Study of philosophy of Leibniz. May be concurrently scheduled with course C211, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled.

C112. Locke and Berkeley. (4) Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis on 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) Preparation: one philosophy course. Selected topics from metaphysical, epistemological, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C214.

115. Kant. (4) Lecture, three hours; discussion, one hour. Preparation: course 21 or 22. Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. P/NP or letter grading.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more of following philosophers: Boltzmann, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts.
119. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of modern period, or study in single area such as theory of knowledge or metaphysics in several philosophies. 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: two relevant philosophy or linguistics courses. Analysis of various problems concerning nature of mind and mental phenomena, such as relation between mind and body, and our knowledge of other minds. May be repeated once for credit with consent of instructor.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant philosophy courses. Discussion of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, explanation and prediction, nature of social laws).

127A. Philosophy of Language. (4) Requisite: course 31. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor.

127B. Philosophy of Language. (4) Lecture, three hours; discussion, one hour. Requisite: course 31. Course 127A is not requisite to 127B. Selected topics similar to those considered in course 127A, but at more advanced and technical level. May be repeated for credit with consent of instructor.

128A. Philosophy of Mathematics. (4) Requisites: courses 31, 32, 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, Poincaré, early Weyl).


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 alternatives; 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, conventionalism, absolutist versus relationist views of space and time, philosophical implication of relativity theory.

131. Science and Metaphysics. (4) Preparation: two philosophy courses. Recommended: some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor.

132. Philosophy of Biology. (4) Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology, which may include structural analysis of evolution, taxonomy, reductionism, concept of a biological species, and biological explanation. P/NP or letter grading.

133. Topics in Logic and Semantics. (4) Requisite: course 22. Possibility and necessity; one normal theory; definitions, alternative theories of descriptions, many-valued logics, deviant logics.

134. Introduction to Set Theory. (4) (Same as Mathematics M112.) Lecture, three hours; discussion, one hour. Requisite: course 110A or Mathematics 110A or 121 or 131. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinites, ordinals. P/NP or letter grading.


136. Modal Logic. (4) Lecture, four hours. Requisite: course 31. First course in sequence (see course 176). Topics include various normal modal systems, derivability within the systems, Kripke-style semantics and generalizations, Lemmon/Scott completeness, incompleteness, incompleteness of quantified logic, quantificational extensions. Letter grading.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philosophical literature, of principles and arguments advanced in discussion of current moral and social issues. Topics similar to those in course 4, but familiarity with some basic philosophical methods presupposed. May be repeated for credit with consent of instructor.

151A-C151B-151C. History of Ethics. (4-4-4) Lecture, three hours; discussion, one hour. Preparation: course 31. First course in two-term sequence (also see course C156). Possible topics include formal theories, logical explanation. P/NP or letter grading.

151A. Modern. (Formerly numbered 151B.) Intensive study of Kant's ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C245; P/NP or letter grading.

151B. Contemporary. (Formerly numbered 151.) Lecture, four hours. Requisite: course 182 or 183. Intensive investigation of one or two selected topics or works in theory of knowledge, such as priori knowledge, problem of induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

151C. Topics in Philosophy of Religion. (4) Lecture, three hours; discussion, one hour. Preparation: course 22 or 23. Intensive investigation of one or two topics or works in philosophy of religion, such as attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

152. Ethics and Value Theory: Metaphysics. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant philosophy or linguistics courses. 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.

153A. Topics in Ethical Theory: Normative Ethics. (4) Requisite: course 31. Selected topics in normative ethical theory. Topics may include human rights, virtues and vices, principles of culpability and praiseworthiness (criteria of right action). May be repeated for credit with consent of instructor.

153B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study of selected problems in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

154. Topics in Value Theory: Rationality and Action. (4) Requisites: courses 22 and 31. Selected topics concerning normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of the will, and decision theory. May be repeated for credit with consent of instructor.

154B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems concerning moral responsibility and free will, using contemporary or classical readings in attempt to better understand kind of freedom required for moral agents. P/NP or letter grading.

155. Medical Ethics. (4) Lecture, three hours; discussion, one hour. Examination of philosophical issues raised by problems of medical ethics, such as abortion, euthanasia, and medical experimentation. P/NP or letter grading.

156. Philosophy of Mathematical Logic. (4) Lecture, three hours; discussion, one hour. Preparation: two relevant philosophy courses. Consideration of theoretical issues in mathematical logic and foundations of mathematics, including models and consistency. P/NP or letter grading.
177A. Existentialism. (4) Lecture, three hours; dis- cussion, one hour. Preparation: one philosophy course. Analysis of philosophical conceptions and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Sartre, and Camus. Em- phasis on explication and interpretation of the texts. May be repeated for credit with consent of instructor.

177B. Historical Studies in Existentialism. (4) Preparation: one philosophy course. Study of central philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Sartre, Sartre, or Camus. Em- phasis 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 cours- es. Introduction to phenomenological method of ap- proaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Schel- er, Sartre, Merleau-Ponty, Ricoeur. Topics include on- tology, epistemology, and particularly philosophy of mind.

179. Oriental Philosophy: Buddhism. (4) Lecture, three hours; discussion, one hour. Examination of central concepts and arguments in Buddhist philoso- phy, with emphasis on the Mahayana school of Mahayana Bud- dhism. Appropriate parallels to social concepts in Western tradition. P/NP or letter grading.

180. Philosophy of Action. (4) (Formerly numbered 187.) Preparation: two philosophy courses. Study of various concepts employed in un- derstanding human action. Topics may include rati- onal choice, desire, intention, weakness of will, and self-deception. Variable topics; all classes limited to 25. P/NP or letter grading.

181. Philosophy of Perception. (4) (Formerly num- bered 188.) Lecture, four hours. Preparation: two philos- ophy courses. Critical study of main philosophical theories of perception and arguments used to estab- lish them. 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., phenomen- alism, materialism, dualism).


184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. In- tensive investigation of one or two topics or works in metaphysics, such as personal identity, nature of dis- position, possibility, necessity, universals, particulars, causality. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

185. Major Philosophers of the 20th Century. (4) (Formerly numbered 189.) Lecture, three hours; dis- cussion, one hour. Preparation: two philosophy cours- es. Study of writings of one or more major modern philosophers (e.g., Russell, Moore, Wittgenstein, Car- nap, Quine). May be repeated for credit with consent of instructor. P/NP or letter grading.

Special Studies

M187. Philosophical Analysis of Issues in Femi- nist Theory. (4) (Formerly numbered M192.) (Same as Women's Studies M110C.) Lecture, three hours. Requisite for Women's Studies majors: Women's Studies 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoreti- cal contributions made by new scholarship on women in philosophy. Introduction to different concepts and princi- ples that arise in discussion of women's rights and lib- eration. Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

191. Undergraduate Variable Topics Seminars: Philosophy. (4) (Formerly numbered 196.) Seminar, one hour. Preparation: two philosophy courses. Variable topic, consult Schedule of Classes or “Department An- nouncements” for topic to be offered in specific term. Reading, discussion, and development of culminating project. May be repeated for credit with consent of in- structor. 1-hour seminar. P/NP or letter grading.

198A-198B. Honors Research in Philosophy. (2-2) Tutorial, two hours. Limited to junior/senior philosophy honors program students. Each course to be taken in conjunction with one upper division philosophy lec- ture course, either concurrently or in subsequent term, under direct supervision of lecture course in- structor. Advanced work related to lecture course, fur- ther research, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy de- partamental honors requirement. Individual contract required. Letter grading.

198C. Honors Research in Philosophy. (4) Tutori- al, four hours. Limited to junior/senior philosophy hon- ors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research in Philosophy. (2 to 4) Tu- torial, three hours. Limited to upperclassmen. Supervision of individual research and development of culminating project. Culminating paper or research project re- quired. Up to 8 units may be applied toward degree requirements, but no 199 course may be substituted for course in one of four groups on basis of similarity of subject matter. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B-200C. Seminar for First-Year Graduate Students. (4-4-4) Limited to and required of all first-year graduate students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics.

Group I. History of Philosophy

201. Plato. (4) Study of later dialogues. lectures, two hours; discussion, three hours. Requisite: course 22. Preparation: one philosophy course. Hob- bess' political philosophy based on reading, exposition, and critical discussion of relevant texts in English transla- tion.

203. Seminar: History of Ancient Philosophy. (4) Preparation: one philosophy course. May be repeat- ed for credit with consent of instructor.

206. Topics in Medieval Philosophy. (4) Study of philosophy and theology of one or several medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham or study of a single area such as logic or theory of knowledge in several medi- eval philosophers. Topics announced each term. May be repeated for credit with consent of instructor.

207. Seminar: History of Medieval and Renaiss- ance Philosophy. (4) Preparation: one philosophy course. May be repeated for credit with consent of instructor.

208. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hob- bess' political philosophy, especially the Leviathan, with attention to its relevance to contemporary politi- cal philosophy. May be concurrently scheduled with course C108.

209. Descartes. (4) Study of works of Descartes, with discussion of issues such as problem of skepti- cism, foundations of knowledge, existence of God, re- lation between mind and body, and connection be- tween science and metaphysics. May be concurrently scheduled with course C109.

210. Spinoza. (4) Preparation: one philosophy course. May be concurrently scheduled with course C110, in which case there is a two-hour biweekly dis- cussion meeting, plus additional readings and longer term paper for graduate students.

C211. Leibniz. (4) Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C212, which case there is a two-hour biweekly dis- cussion meeting, plus additional readings and longer term paper for graduate students.

C212. Locke and Berkeley. (4) Preparation: one phi- losophy 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.

C214. Hume. (4) Selected topics in philosophy of Hu- me. May be repeated for credit with consent of in- structor. May be concurrently scheduled with course C114.


216. 19th-Century Philosophy. (4) Topics in 19th- century philosophy. May be repeated for credit with consent of instructor.

C219. Topics in Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: selected topics in one or more philosophies of early modern period, or study of philosophy in a single area such as theory of knowledge or metaphysics in several philosophies. May be repeat- ed for credit with consent of instructor. Concurrently scheduled with course C119. S/U or letter grading.

220. Seminar: Topics in History of Philosophy. (4) Lecture, three hours. Preparation: selected topics in philos- ophers which may be from different periods. May be repeated for credit with consent of instructor.

Group II. Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M112. Sets, relations, func- tions, partial and total orderings; well-orderings. Ord- inal and cardinal arithmetic, finiteness and infinity, continuum hypothesis, inaccessible numbers. For- malization of set theory; Zermelo/Fraenkel; von Neu- mann/Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

221B. History of Set Theory. (4) Preparation: one philosophy course. Study of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Origins and significance of certain key ideas, such as set theory as logic, axiom- atic set theory as a reaction to the paradoxes, formation of first-order axiomatic set theory as opposed to in- formal axiomatics, type theory and rank hierarchy, rami- fication, and predicativity. Small sets and sets as small classes, and particular Zermelo/Fraenkel axio- matic theory. Emphasis on actual expressed ideas and views of various influential authors.

222A-222B-222C. Gödel Theory. (4-4-4) Preparation: several courses in logic, preferably including course 135B. First in series of three courses leading to Gödel incompleteness theorem and Tarski definition of truth. 222B. Requisite: course 222A. Second-order arithmetic. Second in series of three courses leading to Gödel incompleteness theorem and Tarski definition of truth. 222C. Requisite: course 222B. Gödel numbering and Gödel theory. Final course in series of three courses leading to Gödel incompleteness theorem and Tarski definition of truth.

224. Philosophy of Physics. (4) Selected philos- ophical topics related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor.

225. Probability and Inductive Logic. (4) Lecture, three hours. Requisite: course M134 or Mathematics M112. Probability may include interpretations of probabil- ity. Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and condition- ing. S/U or letter grading.

226. Topics in Mathematical Logic. (4) Content var- ies from term to term. May be repeated for credit with consent of instructor.
227. Philosophy of Social Science. (4) Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relation between social processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest and advanced preparation in a social science are encouraged to enroll. May be repeated for credit with consent of instructor.

230. Seminar: Logic. (4) May be repeated for credit with consent of instructor.

231. Seminar: Intensional Logic. (4) Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, intensional logic of Principia Mathematica, possible worlds semantics. May be repeated for credit with consent of instructor.

232. Philosophy of Science. (4) Selected topics in philosophy of science. May be repeated for credit with consent of instructor.

233. Seminar: Philosophy of Physics. (4) May be repeated for credit with consent of instructor.

Group III. Ethics and Value Theory

241. Topics in Political Philosophy. (4) Requisites: course 150 or C156 or 157A or 157B or any two philosophy courses. Examination of one or more topics in political philosophy (e.g., justice, democracy, human rights, political obligation, alienation). May be repeated for credit with consent of instructor.

C245. History of Ethics: Modern. (4) (Formerly numbered M245.) Lecture, three hours; discussion, one hour. Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C151B. S/U or letter grading.

246. Seminar: Ethical Theory. (4) Selected topics. Content varies from term to term. May be repeated for credit with consent of instructor.

C247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

248. Problems in Moral Philosophy. (4) Intensive study of some leading current problems in moral philosophy. May be repeated for credit with consent of instructor.

255. Seminar: Aesthetic Theory. (4) Selected topics. May be repeated for credit with consent of instructor.

M256. Topics in Legal Philosophy. (4) (Same as Law M217.) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

M257. Seminar: Philosophy of Law. (4) (Same as Law M254.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor.

259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. Must be taken for 4 units or more in quarters in which students present their own research. May be repeated for credit with consent of instructor. S/U grading.

Group IV. Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Discussion, three hours. May be repeated for credit with consent of instructor.

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; determination and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Selected topics in 20th-century continental European philosophy. May be repeated for credit with consent of instructor.

281. Seminar: Philosophy of Mind. (4) May be repeated for credit with consent of instructor.

282. Seminar: Metaphysics. (4) May be repeated for credit with consent of instructor.

283. Seminar: Theory of Knowledge. (4) May be repeated for credit with consent of instructor.

284. Seminar: Philosophy of Perception. (4) May be repeated for credit with consent of instructor.

285. Philosophy of Psychoanalysis. (4) Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalytic language, metapsychological concepts such as the unconscious, the ego, id, super ego, defense mechanisms, and psychoanalytic conceptions of human nature.

286. Philosophy of Psychology. (4) Relevance of computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology.

287. Seminar: Philosophy of Language. (4) May be repeated for credit with consent of instructor.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor.

289. Seminar: Philosophy of Religion. (4) May be repeated for credit with consent of instructor.

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.

299. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candidacy. Presentation of ongoing research by graduate students or faculty members. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. May be repeated for credit with consent of instructor. S/U grading.

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 the University. 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 8) Tutorial, to be arranged. Properly qualified graduate students who wish to pursue a problem through reading or advanced study may do so if their proposed project is acceptable to a staff member. May be repeated for credit. S/U or letter grading.


and search the most distant regions of the universe to learn about the exotic physical conditions that existed when the universe's expansion was only fractions of a second old. By measuring the gravitational interactions on distance scales from galaxies to the vast superclusters of galaxies, astronomers have concluded that most of the universe's matter is dark or nonluminous; physicists have speculated that this dark matter may consist of yet undiscovered exotic particles which are predicted by the most advanced theories of elementary particle physics.

Department of Physics and Astronomy faculty members and students are able to study the universe in the holistic manner which is demanded by the breadth of these two disciplines.

Undergraduate Study
The Department of Physics and Astronomy offers a choice of four undergraduate majors: the B.S. degree program in Astrophysics, the B.S. degree program in Biophysics, the B.S. degree program in Physics, and the B.A. degree program in General Physics. Courses taken to fulfill any of the requirements for the majors must be taken for a letter grade.

Astronomy Courses
The department offers general courses to all University students, including those who are not science oriented. Astronomy 3 is the fundamental one-term course for students who do not major in physical sciences and should be taken in the first or second year. Astronomy 4, 5, and 6 develop the topics covered in course 3 to somewhat greater depths but are still aimed at nonscience majors. Course 4 discusses stellar and supermassive black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe.

Astronomy 81 and 82 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31 and 32 series).

Students of junior and senior standing in Physics or related sciences are invited to select any of these courses: Astronomy 115, 117, 127, 140, 180.

Physics Courses
Students who wish to use physics to satisfy part of the general education requirements in the physical sciences and who have no mathematics background beyond the high school mathematics required for admission to UCLA may take Physics 10.

Physics 1Q is intended for entering freshman Physics majors and other interested students. Although it is not a required course or a part of or requisite to any general physics sequence of courses, its purpose is to indicate the nature of current research problems in physics on a level intended to be attractive to entering students with a good high school science and mathematics background.

Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH form sequences of courses in general physics for majors in Physics.

The department takes into account prior preparation in physics. If students feel their background would permit acceleration, they may be exempted from one course in the 1A, 1B, 1C sequence by taking the final examination with a class at the end of any term. This serves as a placement examination. A satisfactory score on one or both parts of the College Board Advanced Placement Physics C Test may also serve as a placement examination, but placement is not automatic. Students should discuss such possibilities with their departmental adviser.

Physics 6A, 6B, 6C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Physics 10 is a one-term, nonlaboratory course that surveys the whole field of physics. Any two or more courses from Physics 1A, 6A, and 10 are limited to 6 units credit.

Astrophysics B.S.
Preparation for the Major
Required: Astronomy 81, 82; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or demonstrated ability to program. Systematic study of astrophysics should begin with Astronomy 81 and 82, taken in the second year. Recommended: Chemistry and Biochemistry 20A.

Transfer Students
Transfer applicants to the Astrophysics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two astrophysics courses, two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one programming course. Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

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, 18L; Chemistry and Biochemistry 20A, 20B, 30A, 30B; Life Sciences 2, 3 or 3H, 4; 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 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:** 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 at least two courses from the Physics 180 series, 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, 132, 140A, 140B; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements.

Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, 117, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

**Honors Programs**

The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

**General Physics B.A.**

The General Physics major is intended to provide the necessary flexibility for fields in which a strong background of knowledge in physics would be helpful. If students intend to continue work toward the Ph.D. in Physics, they 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**

Transfer applicants to the General Physics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA Transfer Admission Guide 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:** Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131, 140A, 140B, 180 series, 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, 132, 140A, 140B; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements.

Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, 117, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

**Honors Programs**

The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.
Astronomy

Lower Division Courses

3. Nature of the Universe. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for course 81 or 82 or former course 3H. No special mathematical preparation required beyond that necessary for admission to the University in freshman standing. Course for general University students, especially not intending to major in physical sciences, on development of ideas in astronomy and what has been learned of the nature of the universe, including recent discoveries and developments. P/NP or letter grading.

4. Black Holes and Cosmic Catastrophes. (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general University students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate lives of stars and are associated with some of most energetic and explosive phenomena in astronomy: planetary nebulae and novae (white dwarfs), supernovae, pulsars, galactic X-ray sources, and gamma ray bursts. Supermassive black holes form nucleus of young galaxies, and gravitational accretion of matter onto black holes powers most energetic objects in universe—quasars. Universe was born in ultimate cosmic explosion—Big Bang—that may have received energy from quantum mechanical vacuum. P/NP or letter grading.

5. Life in the Universe. (4) Lecture, four hours; discussion, one hour. Preparation: prior introduction to astronomy. Life on Earth and prospects for life elsewhere in the context of the evolution of the universe from the simple to the complex. Course material primarily from astronomy and biology but includes some chemisty, geology, and physics. Selected topics treated in some depth, but will be little or no formal mathematics. P/NP or letter grading.


7. Astronomy and Media. (4) Lecture, three hours; discussion, one hour; laboratory, four hours. Designed to help nonmajors develop skills to continually learn about science through media. Detaled study of research currently in media, including impact of media, greenhouse effect, NASA, cosmology, and extraterrestrial life. Investigation of forces that influence science reporting. P/NP or letter grading.

81. Astrophysics I: Stars and Nebulae. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomore and upper division students. Survey of our knowledge about stars: their distances, masses, luminosities, temperatures, and interrelations between these parameters. Methods and importance for astrophysics. Variable stars. Planetary nebulae and gaseous nebulae. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology. (4) Lecture, three hours; discussion, one hour; laboratory, four hours. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Recommended: course 81, Physics 1B and 1C (or 1BH and 1CH). Open to qualified sophomore and upper division students. Basic principles of stellar structure and evolution. Red giants, white dwarfs, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and the interstellar medium. Extragalactic astronomy, galaxy clustering, active galactic nuclei, and quasars. Introduction to cosmology: Hubble law, the Big Bang, and earliest moments of the universe. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (2 each) Seminar, two hours. Limited to freshmen. Variable topics; consult Schedule of Courses for topics to be offered in a specific term. P/NP or letter grading.

88A. Cosmic Evolution. (2) Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how, over billions of years, basic mechanisms of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.

Upper Division Courses

115. Statistical Mechanics and Its Application to Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 23B, 33A, 33B, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Particle distributions, partition functions, black body radiation, Saha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and the interstellar medium. P/NP or letter grading.


180. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Requisite: for juniors/seniors in Astrophysics, Physics, or a related field. Lectures cover statistical methods in astrophysics, one- and two-dimensional random processes, and numerical methods. Laboratory experiments involve radiometry, interferometry, narrowband solar imaging, and visual photometry. Emphasis on use of computers for automatic collection of data and for processing two-dimensional astronomical images. P/NP or letter grading.

190. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or students in physics, astrophysics, and astronomy laboratory experiments in field and/or laboratory equipment. P/NP grading.

196. Research Apprenticeship in Astrophysics. (2 to 4) Tutorial, six or 12 hours. Limited to juniors/seniors with overall grade-point average of 3.0 or above. Entry-level research apprenticeship for upper division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.


199. Special Studies. (2 or 4) Tutorial, to be arranged. Informal course with lecture/seminar format, focusing on a set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.

270. Fundamentals I: Fluids and Dynamics. (4) Lecture, three hours. Dynamics of gaseous flows and collisionless, self-gravitating systems. Basic equations of fluid dynamics, with application to shocks, waves, and accretion. The Jeans, Kelvin/Helmholtz, and Rayleigh/Taylor instabilities. Basic equations of stellar dynamics and application to relaxation processes, including virialization, core collapse, and dynamical friction. Letter grading.


274. Galaxies. (4) Lecture, three hours. Galaxy properties: kinematics, mass, morphology, stellar populations; stellar orbits and spiral structure; galaxy formation; galaxy collisions, and mergers; observations and theory of quasars and active galactic nuclei. Letter grading.


277A-277B. Astronomy Research Project. (6-6) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Research project planned in conjunction with a faculty adviser on any suitable research topic in astronomy or astrophysics, culminating in a written report and defense of second term. S/U (277A) and letter (277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, to be arranged. Formal course with lecture/seminar format, focusing on a set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.

279. Seminar: Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.
1A. Physics for Scientists and Engineers: Mechanics. (5) Lecture/demonstration, four hours; discussion, one hour. Recommended preparation: high school physics, one year of high school calculus or Mathematics 31A and 31B. Enforced requisite: Mathematics 31A. Enforced corequisite: Mathematics 31B. Recommended preparation for upper division physics courses. Same material as course 1A but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.


1BH. Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisite: course 1AH or 1BH. Enforced corequisite: Mathematics 32A. Recommended corequisite: Mathematics 32B. Enriched preparation for upper division physics courses. Same material as course 1B but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.

1C. Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity. (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisite: courses 1AH or 1BH. Enforced corequisite: Mathematics 32A. Recommended corequisite: Mathematics 32B. Enriched preparation for upper division physics courses. Same material as course 1C but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.

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/NP grading.

4AL. Physics Laboratory for Scientists and Engineers: Mechanics. (2) Laboratory, three hours. Enforced requisite: course 1A or 1AH. Enforced corequisite: course 1B or 1BH. Experiments on measuring gravity, accelerated motion, kinetic and potential energy, impulse and momentum, damped and driven oscillators, resonance and vibrating strings. Computer data acquisition and analysis. Introduction to error analysis, including distributions and least-squares fitting procedures. Letter grading.

4BL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, three hours. Enforced requisite: course 1A or 1AH. Enforced corequisite: course 1B or 1BH. Experiments on electric forces, fields, and potentials. Magnetic fields. Linear and nonlinear devices. Resistors, capacitors, and inductors. Modern circuits. Geometrical and physical optics. Letter grading.

6A. Physics for Life Sciences Majors: Statics and Dynamics (Honors). (5) Formerly numbered 6A.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: Mathematics 3A, 3B. Enforced corequisite: Mathematics 3C. Not open for credit to students with credit for course 6A. Statics and dynamics of forces, energy, and momentum, with applications to mechanical and biochemical systems. Physics of states of matter (solids, liquids, and gases) and of surfaces and interfaces as they apply to biological organisms. P/NP or letter grading.

6B. Physics for Life Sciences Majors: Waves, Electricity, and Magnetism. (5) Not the same as course 6B prior to Fall Quarter 2002.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: course 6A or 6AH. Not open for credit to students with credit for course 6B. Mechanical waves, sound, electricity and magnetism, electromagnetic waves, biological applications. P/NP or letter grading.

6BH. Physics for Life Sciences Majors: Sound, Light, and Hydrodynamics (Honors). (5) Formerly numbered 6B.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: courses 6A or 6AH. Not open for credit to students with credit for course 6B. Sound and electromagnetic waves, interference, diffraction, radioactivity, and hydrodynamics, with applications to biological and biochemical systems. P/NP or letter grading.

6CH. Physics for Life Sciences Majors: Electricity, Magnetism, and Transport (Honors). (5) Formerly numbered 6C.) Lecture, three hours; discussion, one hour; laboratory, two hours. Enforced requisite: course 6BH. Not open for credit to students with credit for course 6CH. Geometrical and physical optics, fluid statics and dynamics, thermodynamics. Selected topics from foundations of quantum mechanics; atoms, nuclear and particle physics; relativity; medical detectors; biological applications. P/NP or letter grading.

10. Physics. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 1A, 1AH, 6A, or 6AH. Special mathematical preparation beyond that necessary for admission to University in freshman standing not required. Topics include planetary motion, Newton laws, gravitation, electricity and magnetism, wave motion, light, sound, and heat, relativity, quantum mechanics, atoms, and subatomic particles. As time permits, development of physical ideas placed in cultural and historical perspective. P/NP or letter grading.


18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4AL, 4BL. 17. Experiments such as superconductivity, radioactivity, polarization, determination of the speed of light, fine structure constant, Boltzmann constant, Planck constant. Letter grading.
114. Mechanics of Wave Motion and Sound. (4)
Lecture, three hours; discussion, one hour. Requi-
sites: courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH), 1CH, 105B, Mathematics 32B, 33A, 33B. Ve-
brating systems and wave propagation in gases, liq-
uids, and solids, including elements of hydrodynamics
and elasticity. Applications in ultrasonics, low-temper-
ature physics, solid-state physics, acoustics, aero-
nic mechanics, central force motion, linear and non-
linear oscillations. P/NP or letter grading.

115A. Quantum Mechanics. (4)
Lecture, three hours; discussion, one hour. Requi-
sites: courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH), 1CH, 105B, Mathematics 32B, 33A, 33B. Vi-
brating systems in quantum mechanics. Boundary val-
ues, harmonics, and angular momentum. P/NP or
letter grading.

115B. Quantum Mechanics. (4)
Lecture, three hours; discussion, one hour. Enforced requisites: courses 115A, 131. Formal theory. Commutator alge-
bra, Heisenberg operators, generalization of uncertainty
principle, Ehrenfest relations. Three-dimensional prob-
lem of central potentials. Angular momentum. Hydrogen
atom. Identical particles and Pauli exclu-
sion principle. Electrons in an electromagnetic field.
Letter grading.

115C. Quantum Mechanics. (4)
Lecture, three hours; discussion, one hour. Enforced requisite: course 115B. Matrix mechanics. Addition of angular
momentum. Time-independent and time-dependent perturbation theory. Fermi Golden Rule. Applications. Scattering theory, one hour. Requisites: courses 1A, 1B, and
1C (or 1AH, 1BH, and 1CH). P/NP or letter grading.

116. Electronics. (4)
Lecture, three hours; laboratory, three hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH). P/NP or letter grading.

118. Optical Physics. (4)
Lecture, three hours; discus-
sion, four hours. Requisites: courses 1A, 1B, and
1C (or 1AH, 1BH, and 1CH), 110B. Relativity with four
vectors, noninertial reference frames, dynamics of rig-
id bodies, special relativity, electromagnetic waves, normal modes of oscil-
lation, vibrating strings, and wave propagation. P/NP
or letter grading.

120A. Analytic Mechanics. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH). P/NP or letter grading.

120B. Analytic Mechanics. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH). 120B. P/NP or letter grading.

121. Atomic Structure. (4)
Lecture, three hours; dis-
cussion, one hour. Requisites: courses 1A, 1B, and
1C (or 1AH, 1BH, and 1CH). P/NP or letter grading.

131, Mathematics 32B, 33A, 33B. Functions of a
variable. Differentiation, integration, one hour. Requisite:
courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH). P/NP or letter grading.

140A. Introduction to Solid-State Physics. (4)
Lecture, three hours; discussion, one hour. Enforced requis-
iss: course 115C. Introduction to basic theoretical
concepts of solid-state physics with applications.
Crystalline symmetry; electronic and magnetic proper-
ties; electron, neutron, and electromagnetic waves in a lat-
tice; reciprocal lattice; phonons and their interactions;
free electron theory of metals; energy bands. Letter grading.

140B. Properties of Solids. (4)
Lecture, three hours; discussion, one hour. Enforced requisite:
course 140A. Detailed discussion of properties of solids. Use of theory of the electronic structure, theory of the lattice to ex-
amine properties of semiconductors, metals, and su-
perconductors, together with magnetic and dielectric
properties of materials. Properties of noncrystalline
solids. Letter grading.

150. Physics of Charged-Particle and Laser
Beams. (4)
Lecture, three hours; discussion, one hour. Requisites:
courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH), 110A, 110B, 115A, 115B. Physics of charged-
particle and laser beams presented as a unified sub-
ject. Basic physics of charged-particle beams, covering
relativistic particle motion in electromagnetic fields,
transverse focusing, acceleration mechanisms, linear
and circular accelerators, and storage rings. Some
fundamentals of laser physics, including gain and
broadening mechanisms, linear light optics, laser reso-
nators, and advanced topics and applications, P/NP or
letter grading.

160. Numerical Analysis Techniques and Particle
Simulations. (4)
Lecture, three hours; computer ter-
minals, six hours. Preparation: minimum knowledge of
computer programming (Fortran). Requisites:
courses 1A, 1B, and 1C (or 1AH, 1BH, and
1CH), 105A, 105B, 110A, 110B, 110A, 110B. Introduction to field of
computer modeling of physical systems using particle
models; numerical models and methods, methods of
diagnosing results, experience with running interest-
ing physical problems. P/NP or letter grading.

180A. Nuclear Physics Laboratory. (4)
Laboratory, four hours. P/NP or letter grading.

180B. Physical Optics and Spectroscopy Labora-
tory. (4) Laboratory, four hours. P/NP or letter
grading.

180C. Acoustics Laboratory. (4) Laboratory, four hours. P/NP or letter
grading.

180E. Plasma Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180F. Elementary Particle Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

M180G. Soft Matter Laboratory. (4) Formerly num-
bered 180G.) (Same as Chemistry M120.) Laboratory,
four hours. P/NP or letter grading.


190. Research Colloquia in Physics. (2) Seminar, two hours. Designed to bring together students undertaking supervised research in seminars of the department or other disciplines and interested in their work or related work in discipline. Led by one supervising faculty member. P/NP grading.

191. Variable Topics in Physics and Astronomy. (4) Seminar, three hours. Participating research seminar on advanced topics in physics. Reading, discussion, and development of culminating project. Content varies from year to year. May be repeated by credit by petition. P/NP or letter grading.

193. Club Seminar, Physics. (2) 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. P/NP grading.

194. Research Topics in Physics and Astronomy. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or students with regard to understanding methodology in field and laboratory equipment. P/NP grading.

196. Research Apprenticeship in Physics. (2 to 4) Tutorial, 12 hours. 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. Assigned reading and evidence of mastery of subject matter required. Individual contract required. P/NP or letter grading.

198. Honors Research in Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Special Studies in Physics. (2 to 4) Tutorial, to be arranged. May be repeated, but no more than 12 units may be applied toward Physics B.S. degree requirements.

Graduate Courses

201Q. Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


213B. Advanced Atomic Structure. (4) Nyquist symbols, continuous groups, fractional parentage coefficients, n electron systems.


215C. Quantum Statistical Mechanics and the Many Body Problem. (4) Lecture, three hours. Classical mechanics, quantum mechanics, 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.


220. Classical Mechanics. (4) Lecture, three hours. Hamilton/Jacobi theory, action-angle variables, classical perturbation theory, and selected topics such as introduction to physics of continuous media and fluids, nonlinear phenomena. 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 theory, mechanics of continuous media.

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, one pion exchange potential, phase shift analysis.

225A-225B. Advanced Nuclear Physics. (4-4) Requisites: courses 221A, 221B. Normally preceded by course 224. Advanced course in structure of complex nuclei, nuclear models, scattering and reactions.


226E. Particle Astrophysics: Exploring Earliest and Extreme Universe. (4) Lecture, three and one half hours. Requisites: courses 210A, 210B, 221A, 221B. Recommended: course 226A. Introduction to high-energy astrophysics and discussion of latest developments in both experimentation and theory. Special emphasis on unified picture that emerges from particle physics, astronomy, and cosmology. S/U or letter grading.

230A-230B-230C. Relativistic Quantum Theory. (6-4-3) Lecture, three hours. Requisites: courses 221A, 221B, 221C. Modern quantum field theory, including quantum electrodynamics and quantum chromodynamics, renormalization group methods, path-integral quantization, spontaneous symmetry breakdown, monopoles and other solitons.

231A. Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266A. Linear operators, review of functions of a complex variable, integral transforms, partial differential equations. S/U or letter grading.

231B. Methods of Mathematical Physics. (4) Lecture, three hours. Not open for credit to students with credit for Mathematics 266B. Not open for credit to students with credit for Mathematics 266C. Perturbation theory. Singular integral equations. Numerical methods. S/U or letter grading.

232A-232B. Relativity. (4-4) Special and general theories, with applications to elementary particles and astrophysics.

232C. Special Topics in General Relativity. (4) Lecture, four hours. S/U or letter grading.


M236. Geometry and Physics. (4) (Same as Mathematics M217.) Lecture, three hours. Interdisciplinary course on topics at interface between physics and quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supergeometry, Seiberg/Witten theory, conformal field theory, Calabi-Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.

261. Seminar: Special Problems in Theoretical rings, medical accelerators, and free electron lasers. synchrotron light sources, colliding beam storage behavior of beams and beam cooling techniques, particles. (4)

243E. Nonlinear Optics; Superconductivity; Semiconductors; Hopping Transport; Magnetic Resonance; Solid-State Physics. (2 or 4) Requisites: courses 241A, 241B, 241C (may be taken concurrently). Many body methods in solid-state physics.


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.


280E. Advanced Plasma Laboratory. (4) Lecture, two hours; laboratory, four hours. Requisites: courses M122, 180E. Laboratory experiments on behavior of plasmas in magnetic fields. Study of basic physics of particle motions, distribution functions, and fluid dynamics. Plasma heating and nonequilibrium phenomena. Advanced probe, microwave and plasma diagnostics.


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) Requisites of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest in spectroscopy, low-temperature, and solid-state physics. May be repeated for credit. S/U grading.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour; Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical topics not limited to one field of physics. Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in accelerator physics. May be repeated for credit. S/U grading.

295. Research Tutorial: Solid Earth Physics. (2 or 4) Requisites: courses 292 or 294. Seminar and discussion by staff and students on current topics in physics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

296. Research Topics in Physics. (2) Advanced study and analysis of current topics in physics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

M297. Research Tutorial: Elementary Particle Physics. (2 or 4) Seminar and discussion by faculty, postdoctoral fellows, and graduate students on current topics of interest in astrophysical physics. May be repeated for credit. S/U grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Earth and Space Sciences M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses M370A (or former course 370) 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, 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 the University. May be repeated for credit. 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). Required of 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 Examination or Ph.D. Qualifying Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

598. Master’s Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit.

599. Ph.D. Research and Writing. (8 or 12) Tutorial, to be arranged. May be repeated for a maximum of 18 units. S/U grading.
Scope and Objectives
The cornerstone of the physiological science curriculum is vertebrate physiology, with emphases on integrative functions. The research and educational programs focus on integrative physiology at several levels of organization from molecules to living organisms, microscopic structures to macroscopic organization, and cellular properties to organ functions. Students receive comprehensive instruction in all areas of physiological science, while elective courses reflect faculty research expertise, including developmental neurobiology, gene regulation/neural development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, auditory and visual behavior, biomechanics of rehabilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neuromotor control, and social control of neuronal plasticity.

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).

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Physiological Science 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. General introduction to human musculoskeletal, cardiovascular, and respiratory systems and their function, with special emphasis on mechanical and physiological aspects of homeostasis and environmental interaction. Application of physical principles in selected areas of biomechanics, hemodynamics, ergonomics, orthopedics, and robotics. P/NP or letter grading.

5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; 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.


13. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletal, muscular, nervous, circulatory, respiratory, digestive, and genitourinary systems. Laboratory includes examination of human cadaver specimens. Letter grading.

90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. Introduction to current topics in physiological science by a team of departmental faculty members. P/NP grading.

Upper Division Courses

100. Experimental Statistics. (4) (Formerly numbered C100.) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.

CM102. Basic Human Biology for Biomedical Engineers I. (4) (Same as Biomedical Engineering CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of biological system included. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course CM204. Letter grading.
Biology 4E3. Lecture, four hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Molecular-level understanding of human anatomy and physiology in selected organ systems (including cardiovascular, endocrine, immune, respiratory, and urogenital). Functional basis of biomedical instrumentation (diagnosis, surgical technique, including factors controlling membrane excitability, neuronal circuits, motor units, and parameters of neural control). Material for each section to be developed by core faculty. 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. Material for each section to be developed by core faculty. Letter grading.

146. Principles of Nervous System Development. (4) Lecture, four hours. Requisites: courses 107 or 111B and M149. Course 111A and M149 may be taken concurrently. Required of Physiology major. Topics include neuronal excitability and synaptic transmission and function of specific neuronal circuits including stimulus-secretion coupling, vascular smooth muscle contraction, and synaptic transmission in cells in cell culture and in experimental animals and human subjects. Contemporary scientific research articles used as basis for material presented. Students required to present journal article for discussion. Letter grading.

155. Development and Structure of Musculoskeletal System. (4) Requisite: course 111B. Development, histology, cell biology, and biochemistry of musculoskeletal soft tissues. Integration of knowledge of molecular and connective tissue structure and function on each of these levels to understand organization and physiological behavior of the intact system.

M158. Cell Biology. (6) (Same as Biology 158.) Lecture, three hours; laboratory, five hours. Requisites: courses 111A, 111B, and M158. Course 111A may be taken concurrently. Letter grading.

161. Animal Physiology. (5) (Formerly numbered 197Y.) 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, including stimulus-secretion coupling, vascular smooth muscle contraction, and synaptic transmission in cells in cell culture and in experimental animals and human subjects. Contemporary scientific research articles used as basis for material presented. Students required to present journal article for discussion. Letter grading.

167. Physiology of Nutrition. (4) Lecture, four hours. Limited to senior Physiological Science majors. Topics include physiological regulation of food intake, nutrition and vitamins, minerals, photochemicals, and their role in physiological principles, with emphasis on correlation of function at molecular, organellar, and cellular levels. Letter grading.

M168. Ideas and Experiments in History of Physiology. (4) (Same as Biology 168.) Lecture, three hours. Interaction of concepts and experimental techniques 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 scientific discipline. Discussion of weekly readings and presentations by students. Letter grading.

M173. Anatomy and Physiology of Sense Organs. (4) (Same as Psychology and Biophysics 173.) Lecture, three hours; laboratory, one hour. Required of Neurobiology and Biophysics majors. Examination of state-of-the-art biophysical techniques to characterize and evaluate kinematic and kinetic components of movement. Topics include biostatics, biomechanics, and modeling. Concurrently scheduled with course C250L. Letter grading.
C226. Biological Clocks. (4) Lecture; three hours; discussion; one hour. Requisites: courses 111A, 111B, and M180B or M180C. 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 C126. Letter grading.

M227. Neuroendocrinology of Reproduction. (4) (Same as Neurobiology M227.) Lecture; three hours; discussion; one hour. Preparation: undergraduate life sciences and chemistry courses. Structural, functional, and developmental aspects of neuroendocrine and reproductive organs, with emphasis on feedback regulatory mechanisms between hypothalamic-pituitary and gonadal functions and on functional integration of neuroendocrine-reproductive axis at cellular and molecular levels. Letter grading.

235. Advanced Dynamical Systems Modeling of Physiological Systems. (Formerly: in registration C235.) Lecture; four hours; laboratory, two hours. Examination of art of making and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.


C244. Neural Control of Physiological Systems. (5) Lecture, four hours. Requisite: course 111B or M180B. Examination of 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.

245. Neural Mechanisms Controlling Movement. (5) (Formerly numbered C245.) 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.

250A. Muscle Dynamics. (4) Lecture, four hours. Integrated study of electrical and dynamic parameters of muscle-action, including topics in length-tension and force-velocity interrelationships; critical analysis of electromyographic and digital computer techniques to characterize and evaluate kinematic and kinetic components of movement. Topics include biostatistics, bio-dynamics, and modeling. Concurrently scheduled with course C150. Letter grading.


M260. Neuromuscular Factors in Movement Regu- lation. (4) (Same as Neuroscience M260.) Requi- site: course 138. Interaction of neural and muscular function with factors such as locomotion and muscle fiber properties and importance of these properties in neural strategies of movement regulation. S/U or letter grading.

M263. Neural Mechanisms Controlling Rhythmic Movements. (4) (Same as Neuroscience M263.) Requisite: course 111B or 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.

270A-270B-270C. Modern Concepts in Physiolo- gy. (4-4-4) Lecture, two hours; discussion, two hours. Study and evaluation of primary research literature. Study of foundations of modern techniques in physiological research, analysis of research design. Letter grading. 270A. Requisite or corequisite: course 111A. Foundation for experimental study of organization and function of nervous system and cellular basis of neural action. 270B. Requisite or corequisite: course 111B. Foundation for experimental study of musculo- skeletal, cardiovascular, and respiratory systems. 270C. Requisite or corequisite: course 111C. Foundation for experimental open-ended research and mechanisms in neuroendocrine physiology.


M290. Seminar: Comparative Physiology. (2) (Same as Ecology and Evolutionary Biology M290.) Seminar, two hours; seminar presentation required for 2 units; seminar paper required for 4 units. Letter grading.

293A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Requi- sites: courses 138, M260. Selected topics on muscu- lar determinants of movement, including aspects of exercise, and mechanics of connective tissue. Students required to present two-hour seminar. Letter grading.

294. Recent Advances in Neurophysiology. (1) (Formerly numbered C294.) Lecture, seminar, one hour. Requisite: Life Sciences 2 or undergraduate degree in sci- ence. Critical examination and discussion of recent data and publications that focus on synaptic function. Students required to present one-hour seminar. May be repeated for credit. S/U grading.


296. Research Seminar: Physiological Science. (2) Review of literature, discussion of original re- search, 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) Semi- nars, 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 develop- mental neurobiology, such as neuronal migration, ax- onal guidance, gene expression, and synaptogene- sis. Weekly primary literature student presentations. One-hour seminar presentation on assigned weekly reading required of all students; students enrolled for 2 units must also complete written analysis of addi- tional primary literature papers. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, 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- sponsible for curriculum and instruction at the Univer- sity. May be repeated for credit. S/U grading.

495. In-Service Practicum for Teaching Assistants in Physiological Science. (2) Seminar, to be ar- ranged. Required of all teaching assistants. Sup-ervision in campus in teaching courses in physiological science; material preparation and use of teaching aids. May not be applied toward degree re- quirements. S/U grading.

501. Cooperative Program. (2 to 9) 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 LUSC. S/U grading.

596. Individual Studies for Graduate Students. (2 to 8) Tutorial, to be arranged. To enroll for letter grade, petition signed by faculty sponsor, graduate advisor, and graduate affairs committee chair must be submitted prior to end of second week of class. Eight units may be applied toward degree requirements for M.S. or Ph.D. degree, provided that students enroll in two different 4-unit 596I courses in Physiological Science and laboratory under supervision of different mentors. Term paper required for letter grading. S/U or letter grading.

597. Preparation for M.S. Comprehensive Exam- inations or Ph.D. Qualifying Examinations. (2 to 16) Tutorial, to be arranged with 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 as necessary. S/U grading.
Physiology

David Geffen School of Medicine

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John McD. Tormey, M.D., Vice Chair, Instruction

Professors

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Gregory Brent, M.D., in Residence
Linda L. Denier, M.D., Ph.D. (Maud Cady Guthman Professor of Cardiology)
Jared M. Diamond, Ph.D.
Alan D. Grinnell, Ph.D.
Earl E. Hornsher, Ph.D.
H. Ronald Kabaick, M.D.
Emeran A. Mayer, M.D.
Istvan Mody, Ph.D. (Tony Coelho Professor of Neurology)
Thomas J. O’Dell, Ph.D.
Diane M. Papazian, Ph.D.
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Peipei Ping, Ph.D.
George Sachs, M.D., D.Sc. (Leon J. Tiber, M.D., and David S. Alpert, M.D., Professor of Medicine)
Oscar U. Scrimin, M.D., Ph.D., in Residence
Enrico Stefani, M.D., Ph.D.
John McD. Tormey, M.D.
Julio L. Vergara, Ph.D.
James N. Weiss, M.D. (Chizuko Kawata Professor of Cardiology)
Shimon Weiss, D.Sc.
Ernest M. Wright, D.Sc. (Sherman M. Melnickoff Distinguished Professor of Medicine)

Professors Emeriti

Allan J. Brady, Ph.D.
Jennifer S. Buchwald, Ph.D.
George Eisenman, M.D.
Joy S. Frank, Ph.D.
Glenn A. Langer, M.D. (Castera Professor Emeritus of Cardiology)
Michael S. Letinsky, Ph.D.
Gordon Ross, M.D.
Eduardo Rubinstein, M.D., Ph.D.
Ralph R. Sonnenschein, M.D.
Bernice M. Wenzel, Ph.D.
Brian J. Whipp, Ph.D.

Associate Professors

Sally J. Krasne, Ph.D.
Robb MacLellan, M.D.
Holly Middlekauff, M.D.
Nancy L. Wayne, Ph.D.

Assistant Professors

Jeffrey Abramson, Ph.D.
Hui Sun, Ph.D.

Adjunct Professors

Christopher B. Cooper, M.D.
Arthur Peskoff, Ph.D.
Douglas Rees, Ph.D.
Kenneth P. Roos, Ph.D.

Adjunct Associate Professors

Bernard Ribault, Ph.D.
Hal F. Yee, M.D., Ph.D.

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.

In the last survey conducted by the Conference Board of the Associated Research Councils, UCLA’s Physiology Department was judged fourth best in the nation in terms of the quality of its faculty. The department 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 or UCLA ACCESS to Programs in Molecular, Cellular, and Integrative Life Sciences at http://uclaaccess.ucla.edu.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnnet.ucla.edu. 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 Physiology offers the Master of Science (M.S.) degree in Physiology.

Physiology

Upper Division Courses

100. Elements of Human Physiology. (6) Designed for first-year dental students. Major organic body functions. With special supplementation, a suitable introduction to the field for graduate students for whom the 201A, 201B course sequence is too extensive.

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. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Molecular and Cellular Mechanisms of Neuronal Integration. (5) (Same as Neuroscience M230 and Physiological Science M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected topics 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 laboratories and lecture, 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.

M223. Membrane Molecular Biology. (4) (Same as Biological Chemistry M223.) Lecture, two hours; discussion, two hours. Requisite: Biological Chemistry CM253. Advanced course in molecular aspects of membrane physiology and biochemistry covering lipids and physical chemistry of biological membranes; membrane biogenesis and targeting of proteins to membranes; pumps, carriers, and channels; receptors and transmembrane signaling. S/U or letter grading.

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.

595. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged.

597. Preparation for M.S. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged.

598. Thesis Research for M.S. Candidates. (2 to 12) Tutorial, to be arranged.

599. Dissertation Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged.
Political Science
College of Letters and Science

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Michael F. Lofchie, Ph.D., Chair

Prepolitical Science Major
All students intending to major in Political Science must enroll as Prepolitical Science majors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269A Bunche Hall.

Preparation for the Major
Required: Four lower division courses from Political Science 10, 20, 30, 40, 50. These lower division courses are requisites to upper division courses and are required in those fields designated as the concentration or distribution field. Students must also take Political Science 6 or 6R. Students who concentrate in Fields I, II, III, or IV may substitute for course 6 or 6R one of the following statistics courses: Anthropology M80, Geography M40, Sociology M18, Statistics 10, M12.

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.

Lynn Vavreck-Lewis, Ph.D.
Adjunct Assistant Professor
James A. Desseaux, Ph.D.

Scope and Objectives
The undergraduate major in Political Science aims to provide understanding of basic political processes and institutions as these operate in different national and cultural contexts. It also covers the interaction between national states, the changing character of the relations between citizens and governments, and the values and criteria by which the quality of political life is judged. The program may be individually focused to serve the needs of the liberal arts major, the student seeking preparation for graduate work in political science, public administration, law, and other professional fields, and the student preparing for specialized roles in political and public organizations.

The graduate program leads to the Ph.D. degree in Political Science (a master's degree may be earned in the process of completing Ph.D. requirements). It is designed to give students a strong foundation in the discipline while enabling them to acquire additional skills for advancing their professional careers.

Undergraduate Study
Political Science B.A.

Field Concentration Requirements
The lower division course is requisite to upper division courses in those fields designated as the concentration field and the two distribution fields for majors. Specific requirements for the field concentration are as follows:

I. Political Theory: Political Science 10 and any four courses in Field I
II. International Relations: Course 20 and any four courses in Field II. Courses 118 and 151C may also be applied toward concentration or distribution in Field II
III. American Politics: Course 40 and any four courses in Field III. Courses 114A through M114D, 115A, 120A, and 121 may also be applied toward concentration or distribution in Field III
IV. Comparative Politics: Course 50 and any four courses in Field IV. Courses 118A, 128B, 130, 131, 132A, M132B, and 135 may also be applied toward concentration or distribution in Field IV
V. Methods and Models: Courses 6 or 6R (Statistics 10 and related courses may not be substituted), 30, and any four courses from 104A, 104B, M105, M106, 124, 142D, 149 (collective action; congress, in-
Political Science

situations, and collective choice; legislative strategy), 153B, 156D, 166, 169 (political economy of development), 170A, 191B (international negotiation)

Courses 119, 139, 149, 169, and 179 may be applied no more than twice toward the field concentration requirement. No more than three of these courses may be applied toward the major.

Courses 191H, 198A, 198B, and 199 may not be applied toward either the concentration or distribution requirement.

Political Science majors should be aware that the upper division course requirements in the major (56 units) do not meet the upper division requirement of 60 units for graduation. Additional upper division units must be taken to reach the 60-unit total.

Undergraduate Seminars

Each term the department offers a series of seminars (Political Science 191A through 191E) in each field. The requirements for two upper division courses in the field of which the seminar is offered, a 3.25 average at the upper division level in political science, or discretion of the instructor. These courses may be applied toward either the concentration or distribution requirement, and students who qualify are encouraged to take them.

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 and take at least one seminar course in the Political Science 191 series before they enter the honors program or course 191H.

Students wishing to qualify for graduation with departmental honors must complete the following: (1) courses 191H, 198A, 198B, in which a senior thesis is written; (2) eight upper division courses (excluding courses 119, 139, 149, and 169) distributed as follows: four courses in one field and four additional courses, two in each of two other fields; (3) four upper division courses in one or two of the social sciences other than political science.

Political Science Minor

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, 429A 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.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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.) 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 the collection and analysis of political data, with emphasis on applications of statistical reasoning to the study of relationships among political variables. Use of computer as aid in analyzing data from various fields of political science, among them comparative politics, international relations, American politics, and public administration. P/NP or letter grading.

6R. Introduction to Data Analysis — Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to the study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics. P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three or four hours; discussion, one hour. Exposition and analysis of selected 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 the study of strategic interaction in political applications. Use of game theory and 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 core principles, governmental institutions, and political processes in selected countries. P/NP or letter grading.

50R. Introduction to Comparative Politics — Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Corequisite: course 6R. Not open for credit to students with credit for course 50. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of quantitative evidence. P/NP or letter grading.

88A-88D. Lower Division Seminars. (4 each) Seminar, three hours. Limited to freshmen/sophomores. Opportunity to enhance writing, verbal, and reasoning skills. General introduction to a subfield of a major area, or intensive exploration of a particular theme or topic. Variable topics; consult Schedule of Classes for topics to be offered in a given semester. may be repeated for credit except by students who receive a grade of C-, D, or F. P/NP or letter grading. 88A. Political Theory. 88B. International Relations; 88C. Politics; 88D. Comparative Politics.

Upper Division Courses

104A-104B. Introduction to Survey Research. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Corequisite: course 6. Designed for juniors/seniors. Courses in fundamentals of survey research as a method. 104A. Sampling theory and methods, writing of questions, questionnaire construction, and interviewing. Attitudes, attitude measurement, and attitude change. Participation in formulation of research problem. 104B. Required course 104A. Conducting a survey. Development of survey questionnaire, designing a sample, collecting interviews, maintaining quality control, and coding interviews for machine tabulation. Performance of computer-aided analysis of some part of data and submission of written report of that research.

105. Economic Models of Public Choice. (4) (Same as Economics M135.) Lecture, three or four hours; discussion, one hour. Enforced requisite: Economics 11. Required for juniors/seniors. Analysis of methods and consequences of collective decisions through political mechanisms. Topics include free-rider problem, voting and majority choice, demand revelation, and political bargaining.


107. Women and Politics. (4) (Same as Women’s Studies M117.) 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 the 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; women as political actors; women and the military; women, development, and globalization. May be applied toward Field I, III, or IV. P/NP or letter grading.
Field I: Political Theory

M111A-111B-111C. History of Political Thought. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major political philosophers and schools. P/NP or letter grading.

M111A. Ancient and Medieval Political Theory from Plato to Machiavelli. (Formerly numbered 111A.) (Same as Classics M121.); M111B. Early Modern Political Theory from Hobbes to Bentham; 111C. Late Modern and Contemporary Political Theory from Hegel to the Present.

112A. Democratic 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. (Same as Classics M125.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece. Political form grounded on equality before law, citizenship, and freedom. It came into existence as a struggle by a “ demos,” the people, aware of its excellence and proud of its power, “kratos.” It became only regime capable of including all members of community with wealth, status, and diverging interests. Examination of history and theory of ancient democracy. P/NP or letter grading.

113. Problems in 20th-Century 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 the 20th century.

M114A-114B. American Political Thought. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 114A. Exposition and critical analysis of American political thinkers from the Puritan period to 1865. 114B. Exposition and critical analysis of American political thinkers from 1865 to the present.

M114C. African American Political Thought. (4) (Same as Afro-American Studies M114C.) 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 by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in African American politics. P/NP or letter grading.

M114D. African American Freedom Narratives. (4) (Same as Afro-American Studies M114D.) Lecture, three or four hours; discussion, one hour (when scheduled). Historical, psychological, and thematic interpretation of selected narratives and storytelling in African American culture and politics. P/NP or letter grading.

115A. Ethics and Governance. (4) (Formerly numbered M115A.) Lecture, three or four hours; discussion, one hour (when scheduled). 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 do governance structures 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.

116. Marxism. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of origins, nature, and development of Marxist political theory.

117. Jurisprudence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal system, sources and evolution of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. Letter grading.

118. Political Violence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one or several different uses of violence in revolutionary process; demonstrations, mass uprisings, coup d’etat, assassination, and terrorism. May be applied toward Field II or IV.

119. Special Studies in Political Theory. (4) (Formerly numbered 119A-119Z.) Lecture, three or four hours; discussion, one hour (when scheduled). Prepared: one course in Field I. Requisite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to political theory. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, 169, and 179 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward major. P/NP or letter grading.

M119A. Modern Receptions of Ancient Political Thought. (4) (Same as Classics M124.) Lecture, three hours. Designed for juniors/seniors. Study of how Western cultures have received and reinterpreted political thought of ancient Greeks and Romans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

Field II: International Relations

120A. Foreign Relations of the U.S. (4) (Formerly numbered 120.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of factors and forces entering into formation and implementation of American foreign policy, with special emphasis on contemporary 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. Video lectures by leading scholars as well as live lectures and discussion on complex problems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/NP or letter grading.

121. 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 a specific term. P/NP or letter grading.

121A. World Order. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/NP or letter grading.

M122B. Global Environment and World Politics. (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

123A-123B. International Law. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Course 123A is requisite to 123B. Designed for juniors/seniors. Study of nature and principles of international law in conduct of international relations. Letter grading.

124. 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.

125. Arms Control and International Security. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Arms control, context of international relations, the nuclear age. Nuclear arms race; relationship between deterrence doctrines and nuclear war: roles of technology and ideology; nuclear proliferation; outer space.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Theory and research on causes of war and conditions of peace.

127A-127B. Atlantic Area in World Politics. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Designed for juniors/seniors. Western Europe. External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security in context of the Atlantic Alliance. 127A. U.S. and Europe. Requisite: course 127A. Relations between the U.S. and Western European members of the Atlantic Alliance, in context of U.S./Soviet relations.


128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 20, 128A. Designed for juniors/seniors. Survey of foreign policy of post-Communist Russia, 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. Comparative Foreign Economic Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examinations of international trade, foreign economic policy, and investment policies of the U.S., Japan, France, and Federal Republic of Germany since 1945.

130. 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.

131. Latin American International Relations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Major problems of Latin American international relations and organization in recent decades.

132A-M132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 132A. Requisite: course 20. Contemporary regional issues and conflicts, with particular attention to inter-Arab politics, Arab-Israeli problem, and Persian Gulf area. M132B. (Formerly numbered 132B.) (Same as Honors Colloquium M157.) Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945.

133. International Relations of Sub-Saharan Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Contemporary regional issues and conflicts; foreign policies of regional states; role of international powers.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 120. Designed for juniors/seniors. Contrasts purpose, process models, and decision making. Impact of strategic interaction and situational factors on foreign policy decision making. Implications for policy choice of tools of statecraft (i.e., treaties, threats, military/economic diplomacy). 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). Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt’s decision to build atomic bombs and drawing with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. 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 political behavior, political socialization, personality and politics, racial conflict, and psychological analysis of political opinion on these issues.

141C, Political Behavior Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 6, 40, 141B. Designed for juniors/seniors. Use of innovative methodology in study of political behavior, especially in relation to voting patterns, political participation, and techniques of political action. Students conduct computer-aided analyses of decision problems treated in course 141B and similar courses.

141D, Mass Media and Elections. (4) (Same as Communication Studies M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors/assessments 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.

142A-142B-142C. Political Parties and Interest Groups. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. 142A, Political Parties. Organization and activities of political parties in the U.S. Attention to historical development of the parties, nature of party change, campaign functions and electoral role of the parties, membership problems and party activists, political finance, and party formulation practices. 142B, Political Interest Groups. Systematic investigation of role of political interest groups in governmental process, with attention to internal organization and the relationship of such groups to goals and functions of various types of groups and to strategy and tactics of influence. 142C, Government and Labor. The labor force and nature of trade unions; regulation of labor relations; programs to encourage full employment and to mitigate unemployment; protective labor legislation.

142D, Understanding Public Issue Life Cycle. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: courses 10, 40, and one course from Economics 1, 2, 5, 11, 100, or 101. Examination of how public issue life cycle is shaped by (1) economic and political incentives of various, news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideological, cognitive biases, and ethical reasoning. P/NP or letter grading.

143A-143B-143C. Subnational Government. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 143A, American State Government. Requisite: course 40. Examination of governments of states of federal union as major sources of public policy in the U.S., with government of California as principal emphasis. 143B, International Relations. Intensive analysis of relationships among governments and regional development and role of Supreme Court as interpreter of the U.S. Constitution. Reading of Supreme Court cases as well as various historical and current commentaries.

1414A-M1414B. Electoral Politics. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors.

141A, 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.

144A, Chicano/Latino Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Designed for juniors/seniors. Introduction to political economy of racial domination in the U.S., concentrating on study of Mexican origin communities. Emphasis on identifying and explaining historically changing relationship between class, race, and power by studying interaction between social policies and practices, class and racial stratification systems, and cultural codes and modes of ideological discourse in each historical period. Letter grading.

145A-145B. African American Politics. (4) (Same as Afro-American Studies M145.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course on race or ethnicity from history, psychology, or sociology. Requisite: course 40. Course M144A is not requisite to M144B. 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 the primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of the black community, (2) to analyze important policies facing black Americans, and (3) to sharpen students’ analytical skills. P/NP or letter grading.

145A-145D. Public Law and Judicial Process. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. 145A, Anglo-American Legal System. Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Evolution of English common law courts and their legal system, with emphasis on development of basic concepts of law which were received from the earlier system. P/NP or letter grading.


145D, Judicial Oversight of the Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal controls of administration action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within these limits. P/NP or letter grading.

146A-146F. Organization Theory, Public Policy, and Administration. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

146A, Public Administration and Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Introduction to processes of policy formation and implementation. Exploration of emergence and performance of government bureaucracies and their role in American political process. P/NP or letter grading.
146B. Bureaucracy and Public Management. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to American politics. Sections offered on regular basis, with topics announced in preceding term. P/NP or letter grading. Also see course 117

Field IV: Comparative Politics

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 economic and political factors in African development, with special attention to political basis of inappropriate economic policy during early post-independence period and change toward a more appropriate economic strategy in recent times. Letter grading.

151C. Special Topics in African Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consult Schedule of Classes for topics to be offered in a specific term. Letter grading.

152A-152B-152C. Government and Politics of West European Countries. (4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of constitutional and political structure and development of one or more states in Europe, especially Britain, France, or Germany, with particular attention to contemporary problems. P/NP or letter grading. 152A. Britain; 152B. France; 152C. Germany.

153A-153B. Comparative Government and Politics of Western Europe. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consult Schedule of Classes for topics to be offered in a specific term. Letter grading.

153A. West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Examination of political institutions, political parties, and political institutions. Particular emphasis on study of three West European countries — United Kingdom, France, and Federal Republic of Germany. Consideration of current issues and international and regional problems and the political implications of American foreign policy with each nation. P/NP or letter grading.

153B. Game-Theoretic Approach to West European Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Course 153A is not requisite to 153B. Designed for juniors/seniors. Use of elementary game theory to investigate post-World War II Western political systems. Social and political forces, and political institutions. Particular emphasis on study of three West European countries. Consideration of current issues and international and regional problems and political implications of American foreign policy with each nation. P/NP or letter grading.

154A-154B. Government and Politics in Latin America. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of governmental and political development, organization, and practices. 154A. States of Middle America; 154B. States of South America.

155. Advanced Pluralist Democracies. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main features and basic problems of economically advanced democracies, comparative framework, topic by topic. Emphasis on cross-Atlantic comparisons, not only political but also sociological.

156A-156D. Government and Politics of Post-Communist States. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading:

156A. Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government and political development in Russia, with special attention to legacy of the Soviet Union. P/NP or letter grading.

156B. Eastern Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

156C. Post-Soviet States. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of institutions and political processes in several post-Soviet republics other than Russia. P/NP or letter grading.

156D. Political Economy of Post-Communist Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focus on the study of transition from communist rule to democracy and the market in the selected post-communist countries, with emphasis on development of general theories of political and economic reform. P/NP or letter grading.

157. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government in the Arab states, Turkey, Israel, and Iran. P/NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Survey of political environment in major Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, economic growth, drug trade, deforestation, and security threats. Letter grading.

159A-159B. Government and Politics of China. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic foundations and political dynamics of revolution in modern China.


165. Islam and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Religious and spiritual foundations of Islamic legal and political institutions; legitimacy of historical and contemporary Islamic regimes; and the impact of political, sociological, and economic factors on political systems. Literacy and religious strategies of Islamic activism. P/NP or letter grading.

166. Comparative Analysis of Government Institutions. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Comparison of major institutional structures such as presidentialism vs. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, central vs. unitary systems, pluralist vs. proportional electoral systems, etc. Methodology of analysis is rational choice (political actors are assumed to optimize their results given institutional constraints and action of other actors). Results of analysis affect political outcomes in systematic ways. P/NP or letter grading.
167A. Ideology and Development in World Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled); course 50. Designed for juniors/seniors. Comparative study of major modes of political and economic development in the world today. Relations between industrial and nonindustrial societies in light of current debate about imperialism.

167B. Comparative Development and Administration. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for majors. Concepts and analysis of bureaucratic structures and function in the U.S., other industrialized, and less developed countries, primarily at national level. Special attention to methods of comparative analysis and utility of various methods. P/NP or letter grading.

M157C. Political Economy of Development. (4) (Formerly numbered M197G.) (Same as International Development Studies M100B.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. May be applied toward either Field IV or V. Letter grading.

168. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: two courses in Field IV, or course 50 and one course in Field IV. Designed for juniors/seniors. Major approaches to study of comparative politics. Concepts and methodology of comparative analysis. Letter grading.

169. Special Studies in Comparative Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two courses in Field IV. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to comparative politics. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, 169, and 179 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward major. P/NP or letter grading.

Field V: Methods and Models

170A. Studies in Statistical Analysis of Political Data. (4) (Formerly numbered 102.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Use of statistical methods to interpret data and test theories from various fields in political science and use of quantitative evidence in constructing arguments. Literature of field. Consult Schedule of Classes for topics to be offered in specific term. May be applied toward Field II, III, IV, or V. P/NP or letter grading.

171A. Applied Formal Models: Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretic, social network, structural, and "identity" approaches, illustrated by case studies. May be applied toward Field III, IV, or V. P/NP or letter grading.

171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do different ways of counting and casting votes affect political decisions? When can voting rules be manipulated by leaders and voters? Examples from legislative, electoral, and judicial politics. May be applied toward Field IV or V. P/NP or letter grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to common strategies and tactics in legislative settings. May be applied toward Field IV or V. P/NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experiential exercises with emphasis on various aspects of negotiation, including coalition formation, honesty, and role of agents. May be applied toward Field II or V. P/NP or letter grading.

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Intensive examination of one or more special problems related to methods and models in political science. Sections offered on regular basis, with topics announced in preceding term. Courses 119, 139, 149, 169, and 179 may be applied no more than twice toward field concentration requirement. No more than three of these courses may be applied toward major. P/NP or letter grading.

Special Studies

180. Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

190H. Honors Research Colloquia for Majors. (4 each) (Formerly numbered C197A-C197D) Seminar, three hours. Preparation: two upper division courses in field in which seminar is offered. Limited to one more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP grading.

191H. Research Design Seminar for Honors Thesis. (4) (Formerly numbered 195A.) Seminar, four hours. Preparation: one course in C191 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 methods, determine appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Emphasize critical and constructive discussions of students' topics, methods, and problems in research. As well as general consideration of political science research topics and methods of current or continuing interest. Letter grading.

193. Journal Club Seminars: Political Science. (1) Seminar, two hours. Limited to undergraduate students. Discussion of readings selected from current literature of field. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. P/NP grading.

M194DC. CAPPP Washington, DC, Research Seminars. (4) (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPPP Program students in Winter Quarter. Seminars for undergraduates in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of narratives and interviews and quantitative research. Letter grading.

195. Community or Corporate Internships in Political Science. (2) (Formerly numbered 199.) Tutorial, two hours. Preparation: 3.0 overall grade-point average. Limited to juniors/seniors. Jointly supervised by Center for Community Learning and faculty adviser. Further supervision to be provided by organization for which student is doing internship. Students meet on regular basis with instructor and provide periodic reports of their experience. Units may be applied toward major; units applied must be taken for a letter grade. Limited to graduate students. Course work for a maximum of 16 units. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPPP Washington, DC, Internships. (4) (Formerly numbered 195DC.) (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/NP grading.

199A-199B. Honors Research in Political Science. (1 to 4 each) Tutorial, two hours. Prerequisite: course 191H. Limited to juniors/seniors. Individual contract required. 199A. (Formerly numbered 195B.) Development of honors thesis or comprehensive research project under direct supervision of faculty member. In Progress grading. 199B. (Formerly numbered 195C) Prerequisite: course 198A. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. Letter grading.

199H. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. May be repeated for a maximum of 16 units. Individual contract required. P/NP or letter grading.

200AL. Statistical Methods Laboratory I. (4) Laboratory, three hours. Corequisite: course 200A.


M200E. Advanced Regression Analysis. (4) (Same as Psychology M256.) Seminar, three hours. Diagnosis, robust regression, cross validation, resampling, outliers, missing data, geometry of regression, validity of assumptions, categorical dependent variables, transformations of variables. Access to Macintosh computer very helpful.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without presupposing mathematical background. Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decentralization, strategic manipulation representation, vote trading.

201B. Theory of Collective Choice. (4) Seminar, three hours. Preparation: knowledge of political science students: course 201A. Open to any student in the political science major. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major topics in formal political economy. Investigation of models of regulation, trade protection, collective bargaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Preparation: course 203A. Continuing survey of microeconomic techniques used in formal political science, with focus on market failure and modeling individual choice in nonmarket situations. Specific topics include externalities, public goods and allocation mechanisms, collective action, spatial models, structure-induced equilibrium, and information asymmetries.

204. Game Theory in Politics. (4) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucracies, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical literature in political science.

M208A. Game Theory. (Same as Economics M214B and Mathematics M261.) Lecture, three hours. Designed for graduate students of economics, mathematicians, and political science students. Bargaining theory, the core, the value, other solution concepts. Application to oligopoly, general exchange and production economies, and allocation of joint costs. S/U or letter grading.

M208B. Topics in Applied Game Theory. (Same as Economics M215.) Lecture, three hours. Preparation: calculus or introductory probability. Designed for graduate economics and political science students. Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.

M208D. Multivariate Analysis with Latent Variables. (4) (Same as Psychology M257 and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable structural models, models of factors in multivariate analysis. Causal modeling: testing via analysis of moment structures. Measurement models such as confirmatory, hierarchical, and structured models. Factor analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, other statistical issues. Computer implementation. Applications. S/U or letter grading.

M208E. Bayesian Econometrics. (4) (Same as Economics M232A.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simulation of models, criticism. S/U or letter grading.

209. Special Topics in Formal Theory and Quantitative Methods. (4) Seminar, three hours.

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 Political Thought. 210B. Early Modern Period from Machiavelli through the Enlightenment.

212. Seminar: Political Theory. (4) Seminar, three hours.

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, Nussbaum, etc.) in which the subject has been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

217. Selected Texts in Political Theory. (4) Formerly numbered C217.) Seminar, three hours. Critical examination of major texts in political theory, with particular attention to their phenomological, their relations to contemporary political and intellectual currents, and importance of system for present-day political analysis. S/U or letter grading.

218. Selected Topics in Political Theory. (4) Formerly numbered C218.) Seminar, three hours. Critical examination of major problem in political theory. S/U or letter grading.

219. Workshop: Political Theory. (4) Discussion, three hours.

International Relations

220A. International Relations Core Seminar I. (4) (Formerly numbered 220.) 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) (Formerly numbered C221.) Seminar, three hours. Enforced requisite: course 220A. 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. Enforced requisites: courses 220A, 220B. 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 involves the other person’s choice by affecting his expectations of how we will behave. Discussion of theories of deterrence, coercive diplomacy, crisis management, war termination, negotiation, bargaining, and the theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.

223. Politics and Strategies of Modern War. (4) (Formerly numbered C223.) Seminar, three hours. Analysis of various national security problems in both their military/technical and political dimensions. Letter grading.

225. American Foreign Policy. (4) Discussion, three hours. Discussion of approaches used to explain foreign policy-making at individual, small group, bureaucratic, and domestic politics levels. Application to selected cases in American foreign policy.


227. Foreign Policy Process. (4) (Formerly numbered C227.) Seminar, three hours. Requisites: courses 120, 220A, 220B. Political science approaches to national foreign policy process, with primary focus on formulation and implementation of American foreign policy. S/U or letter grading.

230. Contending Perspectives on International Political Economy. (4) Discussion, three hours. Survey of various theoretical approaches to international political economy.

231. International Political Economy I. (4) Seminar, three hours. Interaction between international trade, investment, and financial flows and the 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, signalling, 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 working on their 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.
246A. Western European Politics. (4) Seminar, three hours; preparation: successful completion of major field examinations. Course 234A is requisite to 246B, which is requisite to 243C. Courses may 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) (Formerly numbered C239.) 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 field of comparative politics, with selection of theories and methodologies that have comprised field over time. 240B. Survey of contemporary research approaches and problems in field of comparative politics, with a range of theories and methodologies used by practitioners in the field.


244. Latin American Politics. (4) (Formerly numbered C244.) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) (Formerly numbered C245.) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) (Formerly numbered C264A.) 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 Union and its transformation.

247B. Domestic Context of Russian Foreign Policy. (4) Seminar, three hours. Examination of domestic social, political, bureaucratic, and organizational sources of Russian foreign and strategic policy. S/U or letter grading.

248. South Asian Politics. (4) (Formerly numbered C248.) Seminar, three hours. Survey of contemporary research approaches and problems in South Asian politics. S/U or letter grading.

251. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economics helpful. Principal political and economic arguments for economic reform and consideration of political issues that arise from this process. Letter grading.

252. Parties and Party Systems. (4) Seminar, three hours; discussion, one hour (when scheduled). Theories and practices of political parties, party systems, and elections in comparative perspective.

253. Political Change in Communist Systems. (4) Discussion, three hours. Examination of political context and consequences of structural reform in Communist and post-Leninist political pluralization and convergence.

254A-254B. Institutions and Comparative Politics. (4-4) Seminar, three hours; discussion, one hour (when scheduled)

254A. 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. parliamentaryism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plurality 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, to parties and legislatures, and from elected politicians to unelected bureaucrats. Examination of implications of different institutional designs for how those delegations are made and controlled.

255. Seminar: Political Change. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of war and trade on domestic cleavages, policy, and institutions.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics.

259. Selected Topics in Comparative Politics. (4) Discussion, three hours. Critical examination of a major problem in comparative politics.

American Politics

260A. Survey Course in American Politics: Political Parties and the Electoral Process. (4) Discussion, three hours.

260B. Survey Course in American Politics: American Political Institutions. (4) Discussion, three hours.

M261A. Proseminar: Political Psychology. (4) (Formerly numbered M261A.) Seminar, three hours. Requisite: course M261A or Psychology 220A. Examination of political concepts, ideas, and strategies; and function of the executive.

261B. Mass Attitudes and Political Behavior. (4) (Formerly numbered C261B.) 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 vs. deferential journalism, and analyses of media bias.

M261D. Seminar: Political Psychology. (4) (Formerly Psychology M228B.) Discussion, three hours. Requisite: course 228A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion.

M261E. Critical Problems in Political Psychology. (4) (Formerly Psychology M228C.) Discussion, three hours.

262. Political Parties. (4) (Formerly numbered C262.) Seminar, three hours. Critical examination of literature on party systems and organization. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.

264. Politics and Society. (4) (Formerly numbered C264.) Seminar, three hours. Application of selected classical and contemporary sociological theories to politics. S/U or letter grading.

265. Politics and Economy. (4) Discussion, three hours. Analysis of theoretical and practical relationships between economic organization and governmental institutions. Development and political implications of the market system, banking and finance, corporate enterprise, and organized labor.

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.


269. Seminar: Political Behavior. (4) Seminar, three hours.

270. Legislative Behavior. (4) (Formerly numbered C270.) 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) (Formerly numbered C271.) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to theories of organization and personality and relationships between executive and other institutions and groups. S/U or letter grading.

272. Political Environment of the Federal Executive. (4) Discussion, three hours. Examination of political environment of the federal executive in the U.S. Special attention to executive/legislative relations.

273. American Political Development. (4) Discussion, three hours. National political institutions in historical perspective, theories of state building, state societal relations, political culture.


279. Seminar: Public Law. (4) Seminar, three hours. May be concurrently scheduled with course C197C.


284. Seminar: Bureaucracy and Organization. (4) Seminar, three hours. Exploration of topics in analysis of public and private bureaucracies and organizational theory. Topics include empirical theories of bureaucratic behavior; bureaucratic growth; bureaucratic behavior and political culture; organizational structures and strategies; and function of the executive.

Special Studies

290. Modern Political Economics. (4) Discussion, three hours. Discussion of implications for understanding politics of the thinking of politicians, bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macroeconomic forms of political participation, the state, government regulation, growth of government, bureaucracy elections, public policy, inflation.
PSYCHIATRY AND BIOBEHAVIORAL SCIENCES
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Chair
Robert N. Pechnick, Ph.D.

Professors

Lori L. Altshuler, M.D., in Residence (Julia S. Guow Professor of Mood Disorders)
M. Douglas Anglin, Ph.D., in Residence
Joan R. Asarnow, Ph.D., in Residence
Robert F. Asarnow, Ph.D., in Residence (Della Martin Professor of Psychiatry)
Robert M. Bilder, Ph.D., in Residence
Susan Y. Bookheimer, Ph.D., in Residence
Kyle B. Boone, Ph.D., in Residence
James R. Boutler, Ph.D., in Residence
Carole H. Browner, Ph.D., in Residence
Alexander Bystriytskiy, M.D., Ph.D., in Residence
Anthony T. Campagna, Ph.D., in Residence (Vincent and Stella Coates Professor of Molecular Neurobiology)
Tyrone Cannon, Ph.D.
Rochelle Caplan, M.D., in Residence
Stephen D. Cederbaum, M.D., in Residence
Mark S. Cohen, Ph.D., in Residence
Michelle Cranford, Ph.D., in Residence
Jeffrey L. Cummings, M.D. (Augustus S. Rose Professor of Neurology)
Jean S. de Vellis, Ph.D., in Residence (George Tarjan Professor of Mental Retardation)
Nelson S. Dauelsberg, M.D., in Residence
Robert B. Edgerton, Ph.D., in Residence (University Professor)
Christopher J. Evans, Ph.D., in Residence (Stefan Hatos Professor of Psychiatry and Biobehavioral Sciences)
Lynn Fairbanks, Ph.D., in Residence
Kym F. Faull, Ph.D., in Residence
Fawzy I. Fawzy, M.D.
Robin S. Fisher, Ph.D., in Residence
L. Jaime Fitten, M.D., in Residence
Frederick D. Frankel, Ph.D., in Residence
Nelson B. Freimer, M.D., in Residence
Itzhak Fried, M.D., Ph.D., in Residence
Gary C. Galbraith, Ph.D., in Residence
Thomas R. Garrette, Ph.D., in Residence
Michael F. Green, Ph.D., in Residence
Constance L. Hammen, Ph.D.
Charles H. Hinkin, Ph.D., in Residence
Michael R. Irwin, M.D. (Norman Cousins Professor of Psychoneuroimmunology)
Allen W. Johnson, Ph.D.
Bruce L. Kagan, M.D., Ph.D., in Residence
Anand Kumar, M.D., in Residence
Ira M. Lesser, M.D., in Residence
Andrew F. Leuchter, M.D. (Dr. Daniel X. Freedman Professor of Child Psychiatry)
Michael S. Levin, Ph.D., in Residence
Julio Licinio, M.D., in Residence
Eddyte D. London, Ph.D., in Residence
Steven R. Lopez, Ph.D.
Nigel T. Maidment, Ph.D., in Residence
Stephen R. Marder, M.D., in Residence
Emeran Mayer, M.D.
James T. McCracken, M.D. (Joseph Campbell Professor of Child Psychiatry)
Mario F. Mendez, M.D., in Residence
Jim Mintz, Ph.D., in Residence
Jeanne M. Miranda, Ph.D., in Residence
Claudia I. Mitchel-Kernan, Ph.D.
Ernest P. Noble, M.D., Ph.D. (Thomas P and Katherine K. Pike Professor of Alcohol Studies)
Keith H. Nuechterlein, Ph.D., in Residence
Edward M. Ornitz, M.D., in Residence
Robert N. Pechnick, Ph.D., in Residence
Russell E. Poland, Ph.D., in Residence
Robert S. Pyneos, M.D., in Residence
Mark H. Rapaport, M.D., in Residence
Mary Jane Rotheram-Borus, Ph.D., in Residence (Dena-Bat Yaacov Endowed Professor of Childhood Psychiatry and Behavioral Sciences)
Robert T. Rubin, Ph.D., in Residence
Karen J. Saywitz, Ph.D., in Residence
Arnold B. Scheibel, M.D.
Jerome M. Siegel, Ph.D., in Residence
Marian D. Sigman, M.D., in Residence
alcino J. Silva, Ph.D.
Gary W. Small, M.D. (Albert F. and David H. Parlow-Solomon Professor of UCLA Program on Aging)

Susan L. Smalley, Ph.D., in Residence
Annette L. Stanton, Ph.D.
Michael A. Strober, Ph.D., in Residence
Margaret L. Stuber, M.D., in Residence (Jane and Marc Nathanson Professor)
David L. Sultzler, M.D., in Residence
M. Belinda Tucker, Ph.D., in Residence
Alexander J. Tymchuk, Ph.D., in Residence
James A. Waschek, Ph.D., in Residence
Joseph B. Watson, Ph.D., in Residence
Dora B. Weisz, Ph.D., in Residence
Thomas S. Weisner, Ph.D., in Residence
David K. Wetlisch, Ph.D., in Residence
Kenneth B. Wells, M.D., M.P.H., in Residence
Peter C. Whybrow, M.D. (Judson Braun Professor of Biological Psychiatry)
Ma-Li Wong, M.D., in Residence
Charles D. Woody, M.D., in Residence
Gail E. Wyatt, Ph.D., in Residence
Lonnie K. Zeltzer, M.D.

Associate Professors

Thomas R. Belin, Ph.D.
Joel T. Bralslow, M.D., Ph.D., in Residence
Arthur L. Brody, M.D., in Residence
Ellen M. Carpenter, Ph.D., in Residence
Christopher S. Colwell, Ph.D., in Residence
Ian A. Cook, M.D., in Residence
Mark A. Frye, M.D., in Residence
Andrew J. Felton, M.D., in Residence
Victoria C. Hendrick, M.D., in Residence
Sherrel G. Howard, Ph.D.
Marco Iacoboni, M.D., Ph.D., in Residence
Alex J. Kopelowicz, M.D., in Residence
Helen Lavretsky, M.D., in Residence
Jennifer G. Levitt, M.D., in Residence
Stanley F. Nelson, M.D., in Residence
Thomas F. Newton, M.D., in Residence
John C. Placentini, Ph.D., in Residence
Javier Quintana, M.D., Ph.D. in Residence
Sanjaya Saxena, M.D., in Residence
Esther Shorr, Ph.D., in Residence
Tony L. Strickland, Ph.D., in Residence
M. Albert Thomas, Ph.D., in Residence
Donna Ames Waringh, M.D., in Residence
Roger P. Woods, M.D., in Residence
Cui-Wei Xie, M.D., Ph.D., in Residence
Cindy M. Yee-Bradbury, Ph.D.
Alexander S. Young, M.D., in Residence
Bonnie T. Zima, M.D., M.P.H., in Residence

Assistant Professors

Mark G. Barad, M.D., Ph.D. in Residence
Carrie E. Bearden, Ph.D., in Residence
Julienne E. Bower, Ph.D., in Residence
Mirella Dapperto, Ph.D., in Residence
Charles E. Glatt, M.D., Ph.D., in Residence
Dorothy A. Glover, Ph.D., in Residence
Sheryl H. Kataoka Endo, M.D., in Residence
David E. Krantz, Ph.D., in Residence
Sandria K. Loo, Ph.D., in Residence
Kelsey C. Martin, M.D., Ph.D., in Residence
John R. Monterosso, Ph.D., in Residence
Christina G.S. Palmer, Ph.D., in Residence
Jonathan E. Sherin, M.D., Ph.D., in Residence
Sarah J. Spence, M.D., Ph.D., in Residence
Yi E. Sun, Ph.D., in Residence
X. William Yang, M.D., Ph.D., in Residence

Professors of Clinical Psychiatry

Michael J. Gillin, M.D.
Charles S. Grob, M.D.
Barry H. Guze, M.D.
James M. McGough, M.D.
Andrew T. Russell, M.D.
James E. Spar, M.D.
William C. Warnsing, M.D.

Associate Professor of Clinical Psychiatry

David T. Feinberg, M.D., M.B.A.

Scope and Objectives

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses

M291A-M291B. Social Theory and Comparative History. (4-4) (Same as History M203A-M203B and Sociology 292A-B. Colloquium, three and one-half hours every other week. Introduction to historically rooted social theory and theoretically sensitive history, following the program of the Center for Social Theory and Comparative History. Each course may be taken independently for credit.


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 the University. May be repeated for credit. S/U grading.

495. Teaching Political Science. (4) Seminar, to be arranged. Seminar in teaching techniques, including evaluation of each student's own performance as a teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward M.A. or Ph.D. course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be applied only three times toward minimum course requirement in first two years. May be repeated.

597. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents and for medical students.

Enrollment in department courses is limited to registered UCLA students, students registered in programs officially affiliated with UCLA, and students enrolled concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, must also meet required course requisites determined by specific educational programs. Additional information is available from the department office.

**Developmental Disabilities Immersion Program**

The Developmental Disabilities Immersion Program (DDIP), cosponsored by the Department of Psychology, the Department of Psychiatry and Biobehavioral Sciences, and the College of Letters and Science — Center for Community Learning (CCL), provides a community learning environment for undergraduate students who devote two quarters to the intensive study of developmental disabilities. Each year a group of 30 students is selected for the program which runs during Winter and Spring Quarters. Students participate in courses, fieldwork, and research at selected University and community facilities serving persons with developmental disabilities.

Required courses include Psychology/Psychiatry M180A, M180B, M181A, M181B. Courses are designed to foster discussions integrating student field and research experiences. Lectures and discussions explore biological, psychological, and social questions concerning causes and treatment of developmental disabilities. Also covered is an analysis of programs for the care and training of individuals with development disabilities. The fieldwork component gives students the opportunity to apply theories and concepts learned in their coursework to actual settings involving individuals with developmental disabilities. Students also undertake a two-quarter research project under the guidance of a UCLA faculty member. Students interested in the program should contact the DDIP coordinator at the Center for Community Learning, A333 Murphy Hall, (310) 825-7867, for information regarding admission and an application.

**Clinical Psychology Internship**

The department offers a 12-month Clinical Psychology Internship, which is a Graduate Division certificate program. Students enrolled in clinical psychology 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, C8-746 NPI8H, (310) 206-8100, e-mail: dcr@mednet.ucla.edu.

Information on clinical practicums which are offered in conjunction with other educational institutions and UCLA departments may be obtained from the department office.

**Psychiatry and Biobehavioral Sciences**

**Lower Division Course**

98D. Violence in America. (4) Seminar, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Freshmen/sophomores preferred. Survey of scope and variety of violence in the U.S., including comparisons with other developed countries. Epidemiology of various life-threatening behaviors; consideration of possible causes and potential approaches to reduction, intervention, and prevention of both interpersonal and collective violence. Letter grading.

**Upper Division Courses**

M180A. Contemporary Problems in Mental Retardation. (4) (Same as Psychology M180A.) Lecture, three hours. Requisites: Psychology 10, 100A, and 127 or 130 or 133A through 133I. Corequisites: course M181A. Limited to Immersion Program students. Presentation of concepts, issues, and research techniques in the area of mental retardation. Biological, psychological, and community questions concerning causes and treatment of developmental disabilities, as well as systems for care and training of retarded individuals. Lectures, directed reading, and discussion. P/NP or letter grading.

M180B. Contemporary Issues in Mental Retardation. (4) (Same as Psychology M180B.) Lecture, three hours. Requisite: course M180A. Corequisite: course M181B. Limited to Immersion Program students. Discussion relating literature to ongoing field experiences through lectures, discussions, media, and six student papers. P/NP or letter grading.

M181. Biological Bases of Psychiatric Disorders. (4) (Formerly numbered M191.) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Physiological Science M181, and Psychology M117L.) Lecture, three hours. Requisite: Neuroscience M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M180 or Psychology M117A) or Physiological Science M111A 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.

M181A-M181B. Research in Contemporary Problems in Mental Retardation. (4-4) (Same as Psychology M181A-M181B.) Discussion, two hours; laboratory, 10 hours. Corequisites for course M181A: course M180A; for course M181B: course M180B. Research experience. (In Progress (M181A) and P/NP or letter (M181B) grading)

189. Special Studies in Psychiatry. (2 to 4) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study (to be structured by instructor and student at time of initial enrollment). Additional information available in Office of Education, CB-237/CB-238 NPI8H.

**Graduate Courses**

207A-207B-207C. Hypnosis Seminars. (2-2-2) Experiential seminars to prepare mental health professionals for adult and child clinical applications, involving didactics, demonstrations, trainee practice, and feedback. Following training in inductions and development of classic hypnotic phenomena (e.g., age regression, hypnotoanalysis, self-hypnosis), focus on psychotherapeutic applications, including direct symptom removal, behavioral methods, and hypnoanalysis. Emphasis on acquiring skills for clinical practice. S/U grading.


M213. The Individual in Culture. (4) (Same as Anthropology M235.) Seminar, three hours. Designed for graduate students.

M214. Cross-Cultural Studies of Socialization and Children. (4) (Same as Anthropology M236P.) Seminar, three hours. Selected topics in cross-cultural study of socialization and child training. Methods, ethnographic data, and theoretical orientations. Emphasis on current research.

M222. Transcultural Psychiatry. (4) (Same as Anthropology M234P.) Lecture, three hours. Consideration of psychiatric topics in cross-cultural perspective, such as studies of drug use, deviance, suicide, homicide, behavioral disorders, “culture specific” syndromes, non-Western psychiatry, and questions of “sick” societies. May be repeated for credit.


M230. Communication of Science. (2) (Same as Biomathematics 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. Communication with lay public. S/U or letter grading.

M231. Hispanic Mental Health Issues and Treatment. (2) (Same as Social Welfare M203E.) Mental health issues and needs of Hispanics through seminars and videotapes dealing with historical comparison of psychiatry in Mexico and the U.S., analysis of various theoretical perspectives regarding biopsychosocial behavior; distinguishing psychodynamic from cultural factors in treatment of Spanish-speaking patients; treatment of Hispanic families, couples, undocumented persons, and criminal justice system clientele.

M234. Affective Disorders. (2 or 4) (Same as Psychology M280.) Seminar, two hours. General topics related to primary affective disorders (depression, mania, dysthymia, and bipolar disorder) and related conditions. Discussion of psychological, social, and biological aspects of affective disorders, and treatment modalities. S/U grading. 

257A-257B-257C. Communication Disorders Associated with Developmental Disabilities and Psychiatric Disorders. (3-3-3) Laboratory, 90 minutes; discussion, 90 minutes; practice and practical training in communication and its dysfunction as these relate to language disabilities seen in interdisciplinary medical setting. Provides background for graduate and post-graduate students who plan to engage in clinical work and/or clinical research in which language handicaps of children and adulthood are relevant.

259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, three and one-half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philosophies, ethics, ethical codes, issues, and how to resolve them. Use of videotapes and discussion of cases.


263. Clinical Pharmacology. (2) (Same as Biostatistics M271.) 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.

266. Advanced Magnetic Resonance Imaging. (4) (Same as Biomedical Physics M266 and Neuroscience M267.) Lecture, four hours. Starting with basic principles, presentation of physical basis of magnetic resonance imaging (MRI) and emphasize developing advanced applications in biomedical imaging, including both structural and functional studies. Instructor 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 neurological 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.

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 things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness processes as they relate to culture. Topics vary from term to term. May be repeated for credit.

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 interdisciplinary approaches between science, cultural anthropology, psychology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical works. S/U or letter grading.


M277. Cognitive Behavior Therapy with Children: Treatment and Systems of Care. (2 or 4) (Same as Psychology M280.) Seminar, 90 minutes. Designed for graduate students. Cognitive/behavioral approaches to prevention and treatment of mental health problems in children. Examination of treatment delivery systems for treating troubled youth and discussion of issues with respect to current systems of care. Major problems include conduct disorders, attention deficit disorder, depression, anxiety, and learning disabilities.

M280. Politics of Reproduction. (2 to 4) (Same as Anthropology M269P) Seminar, three hours. Examination of various ways that power, as it is structured and enacted in everyday activities, shapes human reproductive behavior. Case materials from diverse cultures illustrate how competing interests within households, communities, states, and institutions influence reproductive arrangements in society. Letter grading.

281A-281B-281C. Behavioral Therapy in an Educational Setting. (4-4-4) (Formerly numbered 281.) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with exceptional children in conducting systematic observations, administering formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical background and skills gained through four to eight weekly lecture. S/U or letter grading.

282. Anthropology of 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 the human body, and how, reciprocally, those perceptions and understandings influence social processes. Includes materials from both non-Western and Western societies. Letter grading.

283. Anthropology of Genetic Knowledge. (2 to 4) (Same as Anthropology M265.) Seminar, three hours. Examination of how sociocultural and political dynamics shape our understandings of genetic discoveries and how genetic information is used to create conceptions of the self and society. Letter grading.

285. Functional Neuroimaging: Techniques and Applications. (4) (Same as Physics M285.) In-depth examination of activation imaging, including PET and MRI methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of a functional MRI experiment. S/U or letter grading.

286A-M286B-M286C. Statistics in Psychiatric and Biobehavioral Research. (2-2-2) (Same as Biostatistics M206A-M206B-M206C.) Seminar, 90 minutes. 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.

287. Small Group Cognitive/Behavioral Interventions. (4) Lecture, three hours. Presentation of brief therapeutic interventions for adults and children and adolescents at risk for suicide, depression, conduct problems, and HIV, with didactic and experiential techniques. Psychiatrist and Biobehavioral Sciences / 503
M288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M284.) Lecture, four hours. Prerequisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.

M289. Intervention to Reduce HIV and Its Consequences. (4) (Same as Community Health Sciences M299.) Lecture, three hours. Examination of interventions to reduce HIV/AIDS transmission. Review of theory and research supporting efficacy of HIV interventions for a variety of high-risk populations. Letter 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 proposals. Small working groups develop grant proposal on a specific topic. S/U grading.


295B. (2) Drug use patterns and treatment issues in specific populations such as women, adolescents, the homeless, the multiply diagnosed, as well as different ethnic populations. Exploration of relationship between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. (2) Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse research. Research design and analysis issues pertinent to drug abuse research. S/U grading.


298. Current Topics in Biobehavioral Sciences. (1 to 4) Current issues in biobehavioral sciences offered on selective basis depending on instructor interest and topical relevancy of problems. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants' current research. Critical review of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparation: submission of written proposal to be structured by instructor and student prior to enrollment; additional information and proposal forms available in Office of Education, C8-237/C8-238 NPI&H. One-to-one supervision of individual therapy cases, including analysis of patient data, supervision of ongoing treatment, informal didactic sessions on personality theory, and applications to patient management.

425. Teaching Case Conference. (1) Review of diagnosis and treatment of full spectrum of disorders, with expert off-unit consultants.


449. Parent Training Intervention Workshop. (2) Lecture, 90 minutes; discussion, one hour. Advanced level training for clinical trainees learn behavioral techniques of assessment and treatment of parent/child problems. Lectures, case presentations, and workshops on various skills necessary.

479. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

480. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogenetics laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of abnormal karyotypes and technical aspects of routine and special chromosome stains.

482. Clinical Practicum in Childhood Anxiety and Related Disorders. (3) Clinic, two hours. Training in cognitive/behavioral assessment and treatment of children and adolescents with anxiety and related disorders. Didactic and experiential training, including direct patient care, clinical supervision, and participation in weekly team meetings. Letter grading.

485. Human Genetics Seminar. (No credit) Preparation: graduate-level human genetics or in specific topic to be presented. Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

497. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

498. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogenetics laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of abnormal karyotypes and technical aspects of routine and special chromosome stains.

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Psychology is a subject of considerable inter-
est 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 Psychol-
ogy presents psychology as a scientific disci-
pine that employs systematic methods of in-
quiry to study and explain human and animal
behavior — both normal and abnormal — in
terms of a variety of underlying variables, in-
cluding neural, physiological, and cognitive
processes; developmental factors and individ-
ual differences; and social and interpersonal
influences and contexts. According to recent
surveys, the UCLA Psychology Department is
ranked as one of the top departments of its
kind in the country.

The structure of the undergraduate curriculum has been designed to reflect the extensive
breadth of psychology — in terms of both the
range of behavioral phenomena studied and the
variety of methods and theoretical ap-
proaches 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 special-
ized courses in areas such as psychobiology,
animal behavior, learning and memory, motiva-
tion, perception, cognition, measurement, per-
sonality, and clinical, social, developmental,
community, and health psychology. The curric-
um also provides excellent opportunities for
research experience — either in the form of
laboratory courses or by participation with fac-
culty and graduate students in a wide variety of
research projects.

A choice of three undergraduate majors is of-
erred: a B.A. degree in Psychology and B.S. degrees in Cognitive Science and in Psychobi-
ology. While the majors overlap in certain fun-
damental and basic knowledge bases, they dif-
fer considerably in their focus (i.e., the extent to
which certain areas of psychology and related
disciplines are studied) and in terms of the dif-
ferent student interests and needs they satisfy.

For nonmajors, the department offers many
courses that can give them new and valuable
insights into the understanding of human be-
behavior, including their own.

At the graduate level, the department offers
training leading to the Ph.D. degree with em-
phases in areas such as behavioral neuro-
science, clinical, cognitive, developmental,
learning and behavior, measurement, and so-
cial psychology. The program is designed to
prepare future psychologists for careers as sci-
entific investigators, college and university
teachers, and professional psychologists.

Psychology B.A.
The Psychology major is the most general of
the three majors and offers both broad and in-
derth coverage of the fundamental and tradi-
tional areas of psychology. It provides students
with a strong foundation for postgraduate edu-
cation in psychology and can serve as excellent
background to prepare them for further training
in such fields as law, education, government and
public policy, business, and many of the
health-related professions. Its basic liberal-arts
orientation also provides excellent foundation
for immediate postbaccalaureate careers in
many areas, particularly ones in which an un-
derstanding 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 recom-
manded if students plan to pursue graduate
work in psychology and related fields. Under
special circumstances, graduate-level courses can be taken by undergraduate students, al-
though such courses may not be applied to-
toward degree requirements for the major. For additional information, contact the Undergrad-
uate Advising Office, 1531 Franz Hall.

Prepsychology Major
Students need to file a petition in the Under-
graduate Advising Office to declare the Prepsychology major. They are then identified as Prepsychology majors until they (1) satisfy the
preparation for the major requirements and (2) file a petition to declare the Psychology ma-
or.

Preparation for the Major
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, and a 2.5 overall grade-point average
in the preparation courses) before students
reach 110 total units (transfer students must
complete all remaining preparation courses by
the end of the first year of enrollment): Anthro-
pology 7 or 12; Life Sciences 1 or 15 or Physi-
ological Science 3; Chemistry and Biochemistry 2 or 14A or 20A (if students have completed one
year of high school chemistry with a C or
better, this requirement is waived); one course
from Computer Science 2, Mathematics 2, Pro-
gram in Computing 10A, Statistics 10, or
one term of calculus; Physics 10 or 1A or 6A;
one course from Philosophy 1, 2, 4, 5, 6, 7, 8,
9, 21, 22, 22W, 31, 32; 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 Prepsychology major before
the term in which they plan to enroll. It is rec-
ommended that students with no background
in introductory statistics take Statistics 10 be-
fore enrolling in course 100A.

Repetition of more than two preparation
courses in which a grade of D or F was re-
ceived or of any preparation course more than
once results in automatic denial of admission
to the major.

Transfer Students
Transfer applicants to the Psychology major
with 90 or more units must complete the follow-
ing introductory courses prior to admission to
UCLA: one human evolution course, one biol-
ogy course equivalent to Life Sciences 1 or 15
or Physiological Science 3, one general chem-
istry course (or one year of high school chem-
istry with a C or better), one general physics
course, one philosophy course, one introduc-
tion to psychology course, and one course
from statistics (recommended), finite mathe-
matics, calculus, computer science theory, or
computer programming in C++.

Refer to the UCLA Transfer Admission Guide
at http://www.admissions.ucla.edu/prospect/
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) Five core courses selected from Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, 127 or 128, 130 (or one course from 132A through 132L), 136; (2) one laboratory/fieldwork course from 101, 111, 113, 116, 121, 126, 131, 136A through 136D, 171A, 174, 186A, 186B, 186C; (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 of the three courses must be completed to receive psychology elective credit.

All upper division courses must be taken for a letter grade. A C– or better is required in each core course and in at least one laboratory/fieldwork course. Students must have a 2.0 grade-point average in all upper division courses selected to satisfy major requirements.

Cognitive Science B.S.

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 toward degree requirements for the major. For additional information, contact the Undergraduate Advising Office, 1531 Franz Hall.

Precognitive Science Major

Students need to file a petition in the Undergraduate Advising Office to declare the Precognitive Science major. They are then identified as Precognitive Science majors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major. Questions about the major should be directed to the Undergraduate Advising Office, 1531 Franz Hall.

Preparation for the Major

The following required courses must be taken for a letter grade (a C or better in each course and a 2.5 overall grade-point average in the preparation courses) before students reach 130 total units: Life Sciences 1 or 15 or Physiological Science 3; Chemistry and Biochemistry 2 or 14A or 20A (if students have completed one year of high school chemistry with a C or better, this requirement is waived); Mathematics 31A, 31B; Philosophy 7 or 8 or 9; Physics 10 or 1A or 6A; Program in Computing 10A, 10B, and one course from 15 or 20A or 40A; Psychology 10, 8S, 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 Precognitive Science major before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Repetition of more than two preparation courses in which a grade of D or F was received or of any preparation course more than once results in automatic denial of 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 course (or one year of high school chemistry with a C or better), 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_tr.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 124G; (2) one course from 186A or 186B or 186C and one course from 121, 186A, 186B, 186C, or Computer Science 161; (3) three upper division elective courses (12 units) from Psychology 110, 112A through M119N, 123, 124A through 124J (if taken for the major, may not be applied as an elective), 130, 133B, 135, 142H, 187A, 191BH or 191CH (if content is approved by the Undergraduate Advising Office and courses have not been applied toward the Psychology 195B or 196B requirement), Computer Science 111 through M186B, Ethnomusicology 172A, Linguistics 103 through 185B, Mathematics 110A through 171, Philosophy 124 through 136, Statistics 100A, 100B, 100C, 120A, 120B; (4) two terms of Psychology 195B or 196B may be fulfilled by taking any two courses from 191CH, 195B, or 196B, provided content is approved by the Undergraduate Advising Office).

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper division cognitive science electives. All of the 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 involves the study of brain-behavior relations and laboratory training in standard brain research techniques.

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.

Prepsychobiology Major

Students need to file a petition in the Undergraduate Advising Office to declare the Prepsychobiology major. They are then identified as Prepsychobiology majors 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: Life Sciences 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 6B, and 6C.

Also required are Psychology 10, 100A, 100B. Students cannot take Psychology 100B unless 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 Prepsychobiology major before the term in which they plan to enroll. Students with no background in introductory statistics
should take Statistics 10 before enrolling in course 100A.

All core curriculum courses must be taken for a letter grade (a C– or better in each course and a 2.0 overall grade-point average in the core curriculum) before students reach 150 total units. Psychology 100A and 100B must be completed before students reach 130 total units. 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 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/adm_tr.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 or Anthropology 128A and 128B, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127 or 128, 130, 133A through 133I, 133J; (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, 112B, 112D, M117A, M117B, M117C, M117J, 119A through M119O, 186D, 191CH (only if content is approved by the Undergraduate Advising Office), Chemistry and Biochemistry 153A, 153L, Cybernetics M186L, Ecology and Evolutionary Biology 102, 104, 105, 106, 110, 111, 115, 117, C119 and C119L, 120, 121, 122, 124 (only 4 units may be applied toward the major), 131 (only 4 units may be applied toward the major), C135, 146, M158, 164, 170, Microbiology, Immunology, and Molecular Genetics 185A, Molecular and Medical Pharmacology M110A, 110B, Molecular, Cell, and Developmental Biology 100, 104, 138, C139, M140, CM156, 171, Neuroscience 151, Physiological Science C144, 146, 147, M148, 166, M173.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper division psychobiology electives. All of the 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.

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 undergraduates closer to understanding research and its applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 99, 192, 193, 194A, 194B, 194C, 195B, 196A, 196B, 199A, or 199B. 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, 4 units of course 199 may be applied toward the elective course requirements for the Psychology major and toward the Psychology 195B/196B requirement for the Cognitive Science major.

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. Enrollment priority in honors courses is given to students in the departmental honors program. 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.

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.

Developmental Disabilities Immersion Program and Concentration

The Developmental Disabilities Immersion Program (DDIP), cosponsored by the Department of Psychology, the Department of Psychiatry and Biobehavioral Sciences, and the College of Letters and Science — Center for Community Learning (CCL), provides a community learning environment for undergraduate students who devote two quarters to the intensive study of developmental disabilities. Each year a group of 30 students is selected for the program which runs during Winter and Spring Quarters. Students participate in courses, fieldwork, and research at selected University and community facilities serving persons with developmental disabilities.

Required courses include Psychology/Psychiatry M180A, M180B, M181A, M181B. Courses are designed to foster discussions integrating student field and research experiences. Lectures and discussions explore biological, psychological, and social questions concerning causes and treatment of developmental disabilities. Also covered is an analysis of programs for the care and training of individuals with developmental disabilities. The fieldwork component gives students the opportunity to apply theories and concepts learned in their coursework to actual settings involving individuals with developmental disabilities. Students also undertake a two-quarter research project under the guidance of a UCLA faculty member.
Concentration
To earn a concentration, majors in Psychology, Cognitive Science, and Psychobiology must be accepted into the Developmental Disabilities Immersion Program. Information and applications are available from the Center for Community Learning, A333 Murphy Hall. Applications are due the Spring Quarter prior to the academic year in which students wish to participate in DDIP.

The following courses are required for the concentration: Psychology 127 (may also be applied as one of the three upper division electives required for the Psychology major), 130 or one course from 133A through 133I (also satisfies a core requirement for the Psychology major), M180A, M180B, M181A, M181B, 195A (two terms). With the exception of course 195A, each course must be taken for a letter grade. If a psychology major earns the DDIP concentration, upper division elective credit for Psychology M180A, M180B, M181A, M181B does not apply toward the major. Students in the department who complete the requirements receive a departmental certificate of completion at graduation; they must notify the department during the term they plan to graduate to receive the certificate. The concentration does not appear on the diploma or transcript.

Interested students should contact the DDIP coordinator at the Center for Community Learning, A333 Murphy Hall, (310) 825-7867, for information regarding admission and an application.

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, 1531 Franz Hall, (310) 825-2896. For questions about additional computing experience, contact the director of the Infant Development Program, 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 (with approval of the Undergraduate Advising Office) and complete one of the following four primary clusters: (1) biological basis of cognition cluster — three courses from Linguistics C135, Psychology 115, 116, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C), 119B, 119F, M119L, M119N; (2) computation and modeling cluster — three courses from Biomathematics 108, Computer Science 161, 163, Psychology 186A, 186B, 186C (at least one course must be from Computer Science 161, Psychology 186A, 186B, 186C); (3) human cognition cluster — Psychology 121 and two courses from 112C, 120A or 120B, 124A through 124J, 133B, 133C, 133E; (4) mind and language cluster — three courses from Linguistics 120A, 120B, 125, 130, 132, C135, 185A, Philosophy 124, 125, 126, 127A, 127B, 129, 170, 172, Psychology 122, 123, 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.

No more than two courses may be applied toward both this minor and a major or minor in another department or program. All minor courses, except for the fieldwork component of the internship courses, must be taken for a letter grade, with 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 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 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 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.
the Psychology Department and the UCLA community.

Since the program was established in May 1983, it has served approximately 15 children and their parents each year and has trained an average of 15 students per term. The program is located in Franz Hall and accommodates children from three months to three years old, operating year-round from 7:30 a.m. to 5:30 p.m.

Clinic for the Behavioral Treatment of Children

The Clinic for the Behavioral Treatment of Children carries out diagnosis, treatment, and research on children with severe psychological problems, such as children with autism and those with severe developmental disorders. The treatment philosophy is largely behavioral/educational, with emphasis on language acquisition, peer and school integration, and parent training. Students are taught behavioral treatment procedures and work in an apprenticeship relationship to senior staff. Prior research has focused on variables controlling self-destructive behavior, perceptual deficits, language acquisition, and emotional/social attachments. The clinic serves as a teaching and research environment for both graduate and undergraduate students.

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://www.gdnet.ucla.edu. 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.) 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.

15. Introduction to Psychology. (4) Lecture, three hours. Designed for nonmajors. Survey of genetic, evolutionary, physiological, pharmacological, and experiential factors affecting behavior. Using comparative approach where appropriate, emphasis on relevance of biological mechanisms to understanding of humans and their interaction with their environment. P/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 psychol- ogy, neuropsychology, and artificial intelligence. Many examples from visual information processing.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Enforced requisite: course 10. Limited to freshmen/sophomores. Intensive analysis in selected situations of selected topics of current psychological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

88A. Stress, Adaptation, and Coping. Limited to freshmen. Physiological and psychological processes related to stresses and strains of daily living and potential relation of these processes to disease states. Examination of multifaceted nature of coping with stressors and exploration of strategies for stress management. P/NP or letter grading.

97. VariableTopics in Psychology. (4) Seminar, three hours. Enforced requisite: course 10. Study of selected topics in psychology at introductory level; seminar format designed for freshmen/sophomores. P/NP or letter grading.

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. Lecture 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, 100A, 100B. General laboratory course for psychology students to acquire key concepts in psychology through active participation in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging 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 animal and human conditioning, retention and transfer of training; relation of learning and motivation. Intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for departmental majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 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 approaches to fear and anxiety, taken from laboratory and clinical research. In-depth coverage of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112C. Principles of Skill Acquisition. (4) Lecture, three hours. Requisite: course 110 or 120A or 120B (recommended). Designed for Psychology majors. Investigation into principles of human skill learning, with focus on general principles of skill learning derived from laboratory settings. These principles have relevance to various industrial or occupational settings, musical performances, vehicle control, sport, and other activities in which complex perceptual-motor skills must be acquired with practice. Major topics include laboratory measurement procedures, effective structure of practice settings, feedback and knowledge of results, learning of automaticity, individual differences, and evaluation of various theories of skill learning. P/NP or letter grading.

112D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, spatial cognition, timing and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/NP or letter grading.

113. Behavior and Alcohol Laboratory. (4) Discussion, two hours; laboratory, four hours. Requisites: courses 10, 100A, 100B. Students conduct an experiment studying effects of alcohol on learning and complex processes using paid volunteers. Examination of set and setting and role of individual differences in relation to current theories of alcohol use and abuse. P/NP or letter grading.

114. Alcoholism. (4) Designed for juniors/seniors. Theories and research on impact, causes, characteristics, and treatment of alcoholism considered from a biobehavioral point of view.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 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.
116. Behavioral Neuroscience Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 115, or 100X, attended for psychology and Psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/NP or letter grading.

M117A-M117B-M117C. Neuroscience: From Molecules to Functions. (4) Lecture, four hours; discussion, 90 minutes. P/NP or letter grading. M117A. 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 6B. Not open for credit to students with credit for Physiological Science 111A. For Physiological Science majors only, a grade of C− or better is required to proceed to Physiological 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.

M117B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Molecular Physiology and Pharmacology M180A or M180B or M180C.). Lecture, four hours; discussion, 90 minutes. P/NP or letter grading.

M117C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Molecular Physiology and Pharmacology M180A or M180B or M180C.). Lecture, three hours. Life Sciences 3.4. 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.

M117J. Biological Bases of Psychiatric Disorders. (4) (Same as Molecular, Cell, and Developmental Biology M181, Neuroscience M130, Physiological Science M181, and Psychiatry M181.) Lecture, three hours. Requisites: course 115 or M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Molecular Physiology and Pharmacology M180A or M180B or M180C.). Lecture, three hours. Designed for juniors/seniors. Basic course for undergraduate students which integrates systematic overview of common forms of behavioral plasticity and standard training procedures in laboratory animals (in behavioral, neurophysiological, and pharmacological studies) with broad biological, evolutionary perspective. P/NP or letter grading.

M119L. Human Neuropsychology. (4) (Same as Neuroscience M119L.) Lecture, three hours. Requisites: courses 115 or M117A and M117C., 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions. P/NP or letter grading.


M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Gerontology M119X.) Lecture, three hours. Designed for juniors/seniors. Biologic mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

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 verbal and nonverbal information. Perception, attention, imagery, cognitive maps which represent 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, surfaces, space, motion, and events. Conjunctions between information, computations, and biological mechanisms in vision, audition, and other systems. P/NP or letter grading.

121. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for Psychology and Cognitive Science majors. Laboratory experience with methods and phenomena from research on human perception, memory, and cognition. P/NP or letter grading.

122. Language and Communication. (4) Lecture, three hours. Requisite: course 10. Introduction to psychology of language and communication; verbal and nonverbal channels; interlinguistic and intralinguistic variation; animal communication; biological bases of language; production and comprehension of speech and writing; relation to perception, memory, and thought; improvisational interaction; language development.
12A. Attention and Sensory Processing. (3) Lecture, three hours. Requisites: courses 10, 100A, 120A or 120B. Designed for juniors/seniors. 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.

12B. Visual Information Processing. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A, 120A or 120B. Exploration of issues in visual information, such as storage and representation of visual information in memory, pattern recognition, nature and role of attention in visual processing, word and picture recognition, object perception, and imagery. Possible consideration of developmental aspects. P/NP or letter grading.

12C. Human Memory. (4) Lecture, two hours; discussion, one hour. Requisites: course 120A or 120B. Designed for juniors/seniors. Analysis of recent research on basic processes and structural components that comprise the human memory system. Discussion topics include practical implications of such research for instruction, marketing, and witness testimony. P/NP or letter grading.

12D. 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, 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 or occupational settings, musical performances, vehicle control, and sport.

12E. Language and Cognition. (4) Lecture, three hours. Requisites: courses 10, 100A, 120A or 120B. Designed for juniors/seniors. Recent theories of language and cognition; nature of categories, feedback, and error detection in language and cognition; modularity, acquisition processes and representations underlying perception, production, attention, and awareness in language and cognition. P/NP or letter grading.

12F. Thinking. (4) Lecture, three hours. Requisite: course 120A or 120B. Analysis of experimental studies of human categorization, reasoning, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

12G. 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 in attention, sequential processes in action, general slowing phenomenon, and related neuropsychological issues. P/NP or letter grading.

12H. 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.

12I. Perception, Learning, and Learning Technology. (4) Seminar, three hours. Requisite: course 120A or 120B. Aspects of perception and cognition as they relate to learning and achievement in education. Basic knowledge about visual information processing, perceptual learning, knowledge representation, pattern recognition, attention, memory, and expertise, as well as research on learning, technology, and applications of perceptual and cognitive concepts in specific domains, with special focus on teaching and learning in K-12. P/NP or letter grading.

12J. 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.

12K. Research Methods in Developmental Psychology. (4) Laboratory, three hours; fieldwork, seven hours. Limited to departmental majors. Research approaches utilized by psychologists to conduct research in developmental psychopathology. Letter grading.

12L. Clinical Psychology Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 127. Designed for departmental majors. Methods, designs, and issues in context of clinical psychology research. Students develop and conduct research. Content varies by instructor, with concentration on one of following: schizophrenia, mood disorders, anxiety disorders, childhood disorders, psychophysiological methods, observational methods with couples and families. Letter grading.

12M. Abnormal Psychology. (4) Lecture, three hours. Requisite: course 10. Study of dynamics and prevention of abnormal behavior, including neuroses, psychoses, character disorders, psychosomatic reactions, and other abnormal personality patterns.

12N. Psychopathology. (4) Lecture, three hours; discussion, one hour. Requisite: course 120. Not open to students with credit for course 127. Overview of recent theories and research on different forms of psychopathology, such as depression, anxiety, schizophrenia, and childhood disorders, psychophysiological methods, observational methods with couples and families. Letter grading.

12O. Personality and Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Rational, methods, 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.

12P. 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, Winnicott, and B. P/NP or letter grading.

12Q. Development and Cognitive Science. (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, Native Americans, and American Indians). P/NP or letter grading.

12R. 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.


12T. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: course 127. Survey of child and adolescent psychopathology and psychotherapy from a developmental perspective. Coverage includes such conditions as anxiety disorders, depression, conduct and attention problems, eating disorders, and autism, with information on prevalence, causes, common treatments and their effects. P/NP or letter grading.

13A. Research and Development. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for seniors/juniors. Elaboration of development of aspects of physical, mental, social, and emotional growth from birth to adolescence. P/NP or letter grading.

13B. Research and Development. (4) Lecture, three hours. Designed for juniors/seniors. Exploration of different orientations to persons with learning problems, emphasizing assessment and intervention approaches and psychological impact of such approaches. Topics include interaction of learner and environment, sociopolitical nature of classroom, psychological impact of schooling, grades, and evaluations, process vs. goal focus in learning.

13C. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Examination of cognitive, social, physical, and physiological development of the adolescent. P/NP or letter grading.

13D. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Major theories, approaches, and issues in study of cognitive development. Readings include original research on important topics such as development of perception, language, thinking, and problem solving, and acquisition of concepts and domain-specific language. P/NP or letter grading.

13E. Social and Personality Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to study of language development. Topics include first and second language acquisition (sounds, meanings, grammatical structures), learning mechanisms, communication skills, and relation between language and thought in children. P/NP or letter grading.

13F. Social and Personality Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Theory and research on social and personality development during childhood. Topics include parental/child attachment, temperament, self-control, aggression, sex-typed self-concepts and reasoning and behavior, social status and social skills, and peer group relations. P/NP or letter grading.
133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and limits of human perceptual abilities, origins of knowledge about functionally important aspects of the environment, ecological and computational issues in perception, research and theory about initial perceptual capacities, and some sensory foun-
dations. P/NP or letter grading.

133F. Psychology and Education. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to problems in social environment. Topics include general instructional issues, psychology of reading and mathematics, exceptional children, early childhood education, and education of the disadvan-
taged. P/NP or letter grading.

133G. Culture and Human Development. (4) Le-
ture, three hours; discussion, one hour. Requisites: courses 10, 100A. Role of culture in human develop-
ment through psychology, anthropology, and autobi-
ography. Students relate material from lectures and readings, through empirical research projects, to di-
verse cultural backgrounds in class, at UCLA, and in the broader community. P/NP or letter grading.

133I. Applied Developmental Psychology. (4) Le-
ture, three hours; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonex-
perimetal methods for study of social attitudes or be-
havior, including fieldwork with survey research, natu-
ralistic observation, or questionnaires. P/NP or letter grading.

134A. Applied Developmental Psychology: Infant/ 
Toddler Care and Education. (4) (Formerly num-
bered 133X.) Lecture, three hours. Designed for Ap-
plied Developmental Psychology minors. Coverage of 
children between three to eight years old. Topics include physi-
cal, cognitive, social, and emotional development of children, developmentally appropriate practices, child care quality, role of educator/caregiver, and other related 
issues. Letter grading.

134B. Applied Developmental Psychology: Pre-
school/School-Age Care and Education. (4) (For-
merly numbered 133Y.) Lecture, three hours. De-
signed for Applied Developmental Psychology mi-
ors. Coverage of children three to eight years old. Topics include physi-
cal, 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 Psy-
chology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134B. Designed for Applied Developmental Psychology minors. Field-
work in advanced applications of developmental psy-
chology 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 133B through 133I, one statistics course. In-
depth study of research methods, current research findings, and theories used to understand infant de-
velopment from conception through second year of life, including cross-cultural application of this knowl-
edge to various problems. P/NP or letter grading.

134I. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 
130 or 133B through 133I, one statistics course. Ex-
ploration of role of early childhood educators within context of diverse racial, ethnic, economic, and cultur-
al backgrounds and impact of these dynamics on chil-
dren’s development. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Interrelationships between the individual and his social environment. So-
cial influences on motivation, perception, and behav-
ior. Development and change of attitudes and opin-
ions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, 
one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Topics in social psy-
chology. Emphasis on social psychological concepts and in-
teractions between individuals. P/NP or letter grading.

136B. Nonexperimetal Methods in Social Psy-
chology. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonex-
perimetal methods for study of social attitudes or be-
havior, including fieldwork with survey research, natu-
ralistic observation, or questionnaires. P/NP or letter grading.

136C. Survey Methods in Psychology. (4) Lecture, 
two hours; laboratory, three hours. Requisites: courses 
10, 100A, 100B, 135. Designed for Psychology majors. Survey research in psychology, with particu-
lar emphasis on surveys of social and political atti-
dudes. Actual experience in systematic survey re-
search such as that done by media polling agencies, 
market research companies, and academic survey research centers. Topics include survey design, sam-
pling, interviewing techniques, response rates, ques-
tionnaire design, data coding, and analysis. Training in telephone interviewing techniques in laboratories. 
P/NP or letter grading.

136D. Research Methods in Health Psychology. 
(4) Lecture, two hours; laboratory, two hours. Requi-
sites: courses 10, 100A, 100B, 135. Research meth-
ods used in health psychology, including experimen-
tal, quasi-experimental, and nonexperimental meth-
ods. Examples and projects from health psychology. Letter grading.

137A. Sport Psychology. (4) Lecture, three hours. 
Designed for junior/senior Psychology majors. Intro-
duction to field of sport psychology. Coverage of 
research and applied aspects of a range of topics, in-
cluding youth sport participants as well as world-class performers.

137B. Attitude Formation and Change. (4) Le-
cure, three hours. Requisites: courses 10, 100A, 135. 
Structure and functions of attitudes, their measure-
ment, how they develop, and methods for changing them. P/NP or letter grading.

137C. Interpersonal Relatiows. (4) Lecture, three 
hours. Requisites: courses 10, 100A, 135. Examina-
tion of research and theory about friendship, dating, and marriage, with emphasis on how these relation-
ships are affected by gender and changing sex roles. P/NP or letter grading.

137D. Introduction to Health Psychology. (4) Re-
quist: course 10. Areas of health, illness, treatment, 
and delivery of treatment that can be elucidated by understanding of psychological concepts and re-
search, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in the medical area.

137E. Women Behaving as Women and Men. (4) 
(Formerly as Women’s Studies M137E.) Lecture, two 
and one-half hours. Requisite: course 10 or Women’s Studies 10. Designed for seniors. Examination of work behavior of women and men. Topics include an-
tecedents of career choice, leadership, career satisfaction, and evaluation and the value of ways in which ideas of death influence conduct of lives; im-
pact of dying on social structure surrounding the indi-
vidual; determining, interventive, and postventive prac-
tices in relation to death and dying; psychological per-
sonal perspective on witnessing dramatic death, including posttraumatic and grief reactions; partial death; me-
gadeth; lethality; psychological autopsy; death of in-
stitutions and cultures. P/NP or letter grading. (Letter grading required if course to be applied toward Psychology or Sociology major.)
170A. Behavior Modification. (4) Lecture, three hours. Designed for juniors/seniors. Applied behavior theory; study of application of principles derived from learning theory, as in classical and instrumental (op-erant) conditioning, to treatment of developmentally disabled, autistic, and schizophrenic children, adult schizophrenics, affective disorders, anxiety states, drug abuse, marital discord, etc. Lectures, discussions, and supervised practice.

170B. Fieldwork in Behavior Modification. (4) Discussion, two hours; fieldwork, six hours. Requisite: course 110 with a grade of A or 170A. Fieldwork in applied behavior theory, especially to problems of retarded and autistic children. Review of current research in the field. May not be applied as an elective toward any Psychology Department major.

171A. Advanced Fieldwork in Behavior Modification for Psychology Majors. (4) Discussion, two hours; fieldwork, six hours. Requisite: course 170B. Designed for Psychology majors. Advanced fieldwork in applied behavior theory, especially related to problems of retarded and autistic children. Review of current research in the field. May not be applied as an elective toward any Psychology Department major.

171B. Practicum: Design and Implementation of Behavioral Interventions. (4) Discussion, two hours; fieldwork, 20 hours. Requisite: course 171A. Designed for juniors/seniors. Application of principles derived from learning theory, as in classical and instrumental (operant) conditioning, to treatment of developmentally disabled children. Topics include goal selection, ethical considerations, behavioral contracting, client right and human use procedures, home and community management, parent and staff training, working with school and community agencies.

172. The Afro-American Woman in the U.S. (4) (Same as Afro-American Studies M172 and Women’s Studies M172.) Lecture, two and one-half hours. Designed for juniors/seniors. Impact of racism, sexism, and political forces which impact on interpersonal relationships of Afro-American women as members of a large society and as members of their biological and ethnic group. P/NP or letter grading.

173. Advanced Abnormal Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A, 127. Examination of research and theory concerning origins, course, and outcomes of disordered behavior. Focus on continuity and change in patterns of behavior, assessment methods, and research approaches. Concentration on one of following: childhood disorders, anxiety and stress, the schizophrenia, or mood disorders. P/NP or letter grading.

174. Interpersonal Process Analysis. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 100A, 100B, 127. Designed for Psychology majors. Study of interpersonal processes, formation of interpersonal structures and functions in goal-oriented human interaction such as psychotherapy, persuasion, courtship, etc. Small group exercises integrated with lecture and discussion (additional laboratory work to be arranged). P/NP or letter grading.

175. Community Psychology. (4) Designed for jun-ior/senior Psychology majors. Application of psychological concepts and strategies to the solution of community problems. Topics include community development, community mental health problems, drugs, racism, and rehabilitation of prisoners.

176. Communication and Conflict in Couples and Families. (4) (Same as Communication Studies M116.) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 127. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disruption (e.g., separation and divorce). P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, 100B, 127. Designed for junior/senior Psychology majors. Conceptual and empirical foundations of psychotherapy as applied to current models of counseling processes. Emphasis on counsel- ing approaches in community mental health areas such as drug abuse, suicide prevention, and crisis inter-vention. P/NP or letter grading.

178. Human Motivation. (4) Lecture, three hours. Designed for juniors/seniors. Examination of theories of human motivation, experimental findings support- ing the theories, and history of study of motivation. Topics include sociobiology, conflict, aspiration level, achievement strivings, and causal attributions.


179B. Biomedical and Psychosocial Aspects of AIDS. (4) Lecture, three hours. Requisites: course 137D or 179A or Health Services 100. Designed for seniors/basics of epidemiology of the dis-ease, routes of transmission, clinical characteristics of AIDS, neurobiological and psychological aspects of coping with HIV infection and AIDS. Presentation of biologic, behavioral, and therapeutic interventions.

M180A. Contemporary Problems in Mental Retar- dation. (Same as Psychiatry M180A.) Lecture, three hours. Requisites: courses 10, 100A, and 127 or 130 or 133A through 133H. Corequisite: course M181A. Limited to Immersion Program students. Presentation of concepts, issues, and research tech-niques in the area of mental retardation. Biological, psychological, and community questions concerning causes and treatment of developmental disabilities, as well as systems for care and training of retarded individuals. Lectures, directed reading, and discussion. P/NP or letter grading.

M180B. Contemporary Issues in Mental Retarda-tion. (Same as Psychiatry M180B.) Lecture, three hours. Requisite: course M180A. Corequisite: course M181B. Limited to Immersion Program students. Psy-choeducational issues in mental retardation relating lit-erature to ongoing field experiences through lectures, discussions, visits, and six student papers. P/NP or letter grading.

M181A-M181B. Research in Contemporary Prob-lems in Mental Retardation. (4-4) (Same as Psych-iatry M181A-M181B) Discussion, two hours; labora-tory, 10 hours. Corequisite: course M180A; course M180B; course M181B; course M180B. Research experience. In Progress (M181A) and P/NP or letter (M181B) grading.

185. Research Practicum in Psychology. (3) Labo-ratory, seven hours. Corequisite: course 194D. Limit-ed to juniors/seniors. Practical applications of psych-ological theories through research experience under fac-ulty mentor. Only 12 units from any combination of cours-es 185, 192, 194, 195, and 196 may be applied to-ward undergraduate degree. May not be applied to-ward major requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Un-dergraduate Advising Office, 1531 Franz Hall. P/NP or letter grading.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Lecture, two and one-half hours; discussion, 30 minutes; laboratory, three hours. Requisites: courses 10, 85, 100A, 100B. Program in Computing 15. Designed for junior/senior departmental majors. Models in several psychological domains (e.g., visual perception, categorization, rea-soning, and problem solving). Types of models include semantic networks, search, production systems, connectionist networks, and mathematical models. Lectures and discussions interwoven with computer simulations written in common Lisp. P/NP or letter grading.

186B. Cognitive Science Laboratory: Neural Net-works. (4) Lecture, two and one-half hours; discus-sion, 30 minutes; laboratory, three hours. Requisite: courses 10, 85, 100A, 100B. Designed for juniors/seniors. Lecture and laboratory work in neural network modeling of perception and cognition. Specific topics include essential neuro-physiology, basic architectures, learning, and pro-gramming techniques. Principles illustrated and dis-cussed in context of models of specific perceptual and cognitive processes. Simulations written in Pas-cal. P/NP or letter grading.

186C. Cognitive Science Laboratory: Psycho-physical Theories and Models. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that ex-amine perceptual measurement procedures (psycho-physical methods) and cognitive processing and deci-sion models on which procedures are based, with particular emphasis on signal detection theory and its applications. 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 pro-cedures. 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 offend-ers, community policing, and interrogation. Outside speakers utilized in presentation of these materials. P/NP or letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Departmental-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. P/NP or letter grading.
188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmental approval required. Tutorial on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes for topics and instructors. P/NP or letter grading.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related coursework in discipline. Led by one supervising faculty member. P/NP grading.


191A-191BH-191CH. Departmental Honors Research Seminars. (2-2-2) (Formerly numbered 190AH-190BH-190CH.) Seminar, two hours. Enforced corequisite: course 191A. Course 191AH is required to 191BH, which is requisite to 191CH. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual projects with faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, courses 191CH and 198 may be applied toward elective course requirement for any Psychology Department major. In Progress (191AH, 191BH) and letter (191CH) grades prohibited.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduates to assist in courses related to psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

193. Journal Club Seminars: Psychology. (1) Seminar, one hour. Limited to undergraduate students. Discussions selected from current literature of particular field or attendance at and write-ups of speakers series. 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. Research fields and topics vary by instructor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/seniors. 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. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated once for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194D. Research Group Seminars: Practicum. (1) Seminar, one hour. Corequisite: course 185. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and species-specific behavior. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed behavior, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Required of learning and behavior students a minimum of four times (entire first year and winter of second year). Presentation of papers of current interest in learning, behavior, or applied behavioral analyses by experts in the field. Evaluation of their significance and methodology in detail. May be repeated for credit. S/U grading.

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, and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behavior. S/U or letter grading.

204B. Theories of Learning. (4) Discussion, three hours. Requisite: course 200A. Critical discussion and in-depth analysis of current major theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcohol and drug abuse, aggression, fear, and anxiety. Emphasis on behavior modification, research in reproductive, autistic behavior, alcoholism, schizophrenia, etc. S/U or letter grading.

204D. Fear and Anxiety. (4) Lecture, three hours. Preparation: graduate training. Emphasis on 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 the neural basis of perceptual learning. Overview of literature on cortical plasticity and how it relates to different forms of perceptual learning in visual, auditory, and somatosensory modalities. Discussion of mechanisms of cortical plasticity, including basic mechanisms of 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.


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.

205E. Psychobiology of Emotion and Stress. (2) Lecture, three hours. Designed for graduate students. Overview of literature on role of brain and autonomic and endocrine systems in emotion and stress-related responses. Some emphasis on involvement of neurotransmitters, neuropeptides, and hormones in emotional plasticity, visceral function, and bodily diseases. Letter grading.

205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible. Letter grading.

205G. Pain. (2) Lecture, three hours. Designed for graduate students. Consideration of pain from both basic science and clinical perspectives. Discussion of nociceptive, sensory, and central mechanisms; pain inhibition, and role of endogenous opioids. Effects of pain and stress on immunity.

205H. Motor Coordination. (2) Lecture, three hours. Designed for graduate students. Elementary and complex units of behavior: reflexes, servomechanisms, oscillators, and central pattern generators. Principles of coordination: efference copy, oscillator coupling, potentiation, and de potentiation. Relation between levels of integration and anatomical levels: transections, lesions, focial stimulation, and single unit recording.

205J. Homeostatic Drive, Hunger, and Thirst. (2) Lecture, three hours. Designed for graduate students. Homeostasis used as framework within which ingestive behavior is discussed. Analysis of thirst on basis of detection of fluid body compartments. Consideration of hunger, focusing on two theories. — “Glucostatic” and “Energostatic.”

205K. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Exploration of anatomy, physiology, and computation in visual system, focusing on retina, visual cortex, and overall performance. Letter grading.

205L. Cognitive Neuroscience. (2) Lecture, three hours. Designed for graduate students. Overview of neural basis of higher cognitive functions, integrating anatomy, 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 include agnosias and characteristics of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.


207A-207B-207C. Seminars: Physiological Psychology. (4-4-4) Requisite: course 115.

M208. Biology of Language and Memory. (4) (Same as Molecular, Cellular, and Integrative Physiology M200G, Neuroscience M200G, and Neuroscience M220.) Lecture, four hours. Molecular, cellular, circuit, systems, and cognitive aspects 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 ground-breaking models. 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 critiqued in depth. May be repeated for credit. S/U grading.


219. Psychology of Gender. (4) Lecture, three hours. Requisite: course 202A or Political Science M261A. Seminar, three hours. Preparation for political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.


220B. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology.


221. Seminar: Attitude Formation and Change. (4) Discussion, three hours. Requisites: courses 220A or 220D. Review of contemporary topics and issues in social psychological research and theory.

222. Biological Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to theory and research in social psychology for students who are not psychology majors. Service course for graduate students in education, sociology, political science, management, public health, etc.

222A. Interpersonal Influence and Social Power. (4) Seminar, three hours. Preparation: advanced social psychology course (psychological or sociological). Review of theory and research on interpersonal influence and social power, with applications to various power relationships such as supervisor/subordinate, health care professional/patient, doctor/nurse, parent/child, wife/husband, teacher/student, political figures, etc.


224. Critical Problems in Social Psychology. (4) Discussion, three hours. Requisites: courses 220A, 220B. May be repeated for credit with consent of instructor.

226A-226B-226C. Current Literature in Social Psychology. (2-2-2) Discussion, 90 minutes. Course 226A is limited to first-year social psychology students. Courses 226B and 226C are open to nonsocial psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U or letter grading.


M228A. Proseminar: Political Psychology. (4) (Same as History M236A and Political Science M261A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

M228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Requisite: course 220A or Political Science M261A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion.

M228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E.) Discussion, three hours.

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 human behavior and social interaction.

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 and research, scale development, physiological 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. Psychology / 515
233. Seminar: Environmental Psychology. (4) Requisites: courses 235, 250A, 250B. Critical review of work in environmental design to identify basic dimensions for analysis of man/environment relationships. Use of human emotional responses to environments as intervening variables linking specific stimuli qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as these relate to emotional response dimensions used to explain within-individual differences in responses to given environment over time or between-individual differences to same situation. Review of literature relating information rate from environments to arousal and preferences for those environments.

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 for young participants. Topics include sources and consequences of competitive stress, significant adult influences and interactions, predictors of performance, determinants of participation and dropping out, and socialization through sport.


M238. Survey of 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) (Same as Education M215.) 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.

240A-240B. Developmental Psychology. (4-4) Lecture, three hours. Preparation: one undergraduate developmental psychology course. Designed for graduate students. Consideration of variables influencing cognitive social and emotional development of the human organism from conception through adolescence. Emphasis on research methodology and research base for current theories of development.

241. Current Developments in Developmental Psychology. (4) (Same as Psychology M241.) Seminar, three hours. Modern approaches to a problem, making it suitable to interweave presentations by graduate students. S/U grading.

242A-M242G. Seminars: Developmental Psychology (4 each) Each course may be taken independently and may be repeated for credit.

242F. Development of Language and Communication. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

M242G. Adolescent Development. (4) (Same as Education M217F) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include puberty, sexual development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.

243A-243B. Seminars: Practical and Societal Issues in Developmental Psychology. (4-4) Seminar, three hours. Requisites: courses 240A, 240B. Socialization processes in human development and implication for social/political, educational, research issues, values, and societal change. In Progress (243A) and S/U or letter (243B) grading.

244. Critical Problems in Developmental Psychology. (4) Lecture, three hours. Requisites: courses 240A, 240B. Current problems; content varies depending on interest of class and instructor. May be repeated for credit with consent of instructor.

M245. Personality Development and Education. (4) (Same as Education M217C) Review of research and theory of critical content areas in personality development that bear on school performance: achievement motivation, empathy and other social behaviors; role of status of behavioral emotionality in personality theory and development.

M246. Psychological Aspects of Mental Retardation. (4) (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.

247. Culture, Brain, and Development. (4) 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.

249. Evaluation Research. (4) Requisites: courses 250A, 250B. Introduction to evaluation research in psychology, with emphasis on clinical, community, and educational psychology. Survey includes policy and strategy issues, design of evaluative studies, data analysis, and utilization of findings.

250A. Advanced Psychological Statistics. (4) Review of fundamental concepts. Basic statistical techniques as applied to design and interpretation of experimental and observational research.

250B. Advanced Psychological Statistics. (4) Advanced experimental design and planning of investigations.

251A-251B-251C. Research Methods. (4-4-4) Tutorial, to be arranged. Designed for graduate psychology students. Students design and conduct original research projects under supervision of instructor in charge. Emphasis on computations in factor analysis. Letter grading.


252B. Discrete Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of frequency table data. Topics include computational strategies 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) (Formerly numbered 255.) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measurement of abstract constructs using both classical and modern empirical techniques. Hands-on approach allows students to develop practical experience. In addition to discussion of issues concerning reliability and validity, topics include exposure to analytic approaches, including item response theory, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.


256. Advanced Regression Analysis. (4) (Same as Political Science M200E.) Seminar, three hours. Diagnostics, robust regression, cross validation, resampling, outliers, missing data, geometry of regression, validity of assumptions, categorical dependent variables, transformation of variables. Access to Macintosh computer very helpful.

257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208D and Statistics M324.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling; theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-means factory analytic models. Structural equation models, including path and simultaneous equations models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of nonparametric statistical methods and techniques commonly used in cognitive psychology. Topics include Markov chains, other stochastic processes, queuing theory, information theory, frequency analysis, etc.

260A-260B-260C. Proseminars: Cognitive Psychology. (1-1-1) Presentation of research topics by students, faculty, and visiting scholars. May be repeated for credit. S/U grading.
261. Perception. (4) Lecture, three hours. Concepts, theories, and research in study of perception. Considers the sensory channel, experimental design, small, taste, or feel as they do? What is the nature of perceptual systems? How do these systems process information?

262. Human Learning and Memory. (4) Lecture, three hours. Includes issues concerning learning and memory in human verbal learning and memory; verbal and nonverbal learning and memory processes, structure and organization of short- and long-term memory. S/U or letter grading.


265. Thinking. (4) Lecture, three hours. Contemporary theory and research in thinking, problem solving, inference, semantic memory, internal representation of knowledge, imagery, concepts.


272A. Clinical Psychological Methods. Problems of Children. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit.

272D. Family Therapy and Family Dynamics. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit.

272E. Family Therapy and Family Dynamics. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit.

272F. Behavior Modification with Adults. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. Designed for second-year graduate clinical psychology students. Current cognitive behavior modification principles and techniques. Major conceptual issues; specific techniques demonstrated and practiced by students to cover a range of adult problems such as, stress, anger management, assertion problems. May be taken independently for credit.

272G. Marital Therapies. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: course 271A, 271B, 271C. Brief overview of assessment and treatment approaches for relationship problems in couples. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systems theories, with relevant research findings. May be taken independently for credit.

273A-273B-273C. Professional 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 variety of topics necessary for clinical psychologists in their clinical work, including legal and ethical issues, child abuse, suicide assessment, issues in empirically validated treatments, psychiatric consultation and psychoactive medications, working with diverse client populations, etc. S/U or letter grading.

274A. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) Formerly numbered 274.) (Same as Health Services 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 the U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.


276. Clinical Approaches to Children with Learning and Related Behavior Problems. (4) Lecture, three hours; discussion, one hour. Designed for Ph.D. students. Theoretical and research issues and problems related to purposes of and practices involved in assessment and correction approaches for children with learning and behavior problems. Practicum experiences to illustrate course content and provide opportunities to improve research and clinical competence.

277. Advanced Clinical Assessment. (4) Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, case studies, psychological test battery, psychotherapy, and application of assessment to problems in psychotherapy. S/U or letter grading.


M280. Affective Disorders. (2 or 4) (Same as Psychiatry M234.) Seminar, two hours. General topics related to rating of depressive disorders (unipolar depressive illness), including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper.

283. Psychopathology. (4) Survey of dominant psychopathological attributes of particular forms of psychopathology, including analysis of various theories concerned with etiology and mediating mechanisms of personality, neurotic, schizophrenic spectrum, and affective disturbances.


M285. Cognitive Behavior Therapy with Children: Treatment and Systems of Care. (2 or 4) (Same as Psychiatry M277.) 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 conduct disorders, attention deficit disorder, depression, anxiety, and learning disabilities.

286. Issues and Concepts of Clinical Psychology. (4) Open to graduate students majoring other than clinical psychology. Survey of major issues and alternatives in current practice. Emphasis on assessment and intervention, with consideration of historical, theoretical, and research bases for current methods.

287. Critical Problems in Clinical Research Methodology. (4) Requisites: courses 250A, 250B. Special problems of measurement and design in clinical research.

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 S/U (289C) grading.

290. History of Psychology. (4) Philosophical and historical context of contemporary psychology. Major trends from the 19th century to contemporary issues.

291. Principles of Behavioral Pharmacology. (4) Intensive analysis of drug, brain, and behavior relationships. Discussion of nature and source of drugs, general aspects of pharmacology, neurotransmitters and basic neuropharmacology, principles of behavioral pharmacology, case studies, toxicological agents, and pharmacological approaches to study of drug addiction, schizophrenia, and other behavioral processes, both normal and pathological.

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 injuries, disease, or improved bodily function, health enhancement.

293. Behavioral and Psychophysiological Problems of Alcoholism. (4) Behavioral and psychophysiological characteristics of alcoholism, along with theories concerning their etiology and treatment. Experimental approaches.

M294. Seminar: Neurobiology and Pharmacological Problems of Alcoholism. (4) Behavioral and neurobiological issues concerning the etiology and treatment of alcoholism. Neurobiological and psychological aspects of alcoholism, including the role of neurochemical and behavioral factors, and their interactions in the development and maintenance of alcoholism.
296. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned readings included. S/U grading.

297. Issues in Social Development of the Minority Child. (4) Seminar, three hours. Designed for graduate students. Critical evaluation and integration of existing research on social psychological development of the minority child. Emphasis on socialization of cognitive and personality style, with goal of empirically clarifying issues raised in this area of developmental study.

298. Special Problems in Psychology. (4) Content depends on interests of particular instructor. May be repeated for credit.


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 the University. May be repeated for credit. S/U grading.

401. Fieldwork in Clinical Psychology. (1 to 12) 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).

402. Clinical Research Practicum. (2) Faculty and graduate students who share interests discuss current literature, new ideas, methodological issues, and preliminary findings. Meetings include research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned reading included. S/U grading.

403. Special Topics Study Course. (1 to 4) Under faculty supervision, group of students meets each week for a quarter in a self-led study group to pursue a 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) Preparation: completion of Ph.D. comprehensive examinations or 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.

410D-410E-410F. Clinical Assessment Supervision. (4-4-4) Discussion, 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) 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 the medical area. Through practical field placement, students apply knowledge acquired in class to research observation and/or clinical work in the field.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Forum for faculty and graduate students pursuing research on a common topic to share research ideas, make research presentations, and obtain feedback on study designs, procedures, and results, to foster collaborative investigations in common research areas. S/U grading.

423. Social Survey Research Practicum. (4) Practicum, two hours; additional hours to be arranged. Methods of survey sampling, conduct and management of computer-assisted telephone interview surveys.

425. Health Psychology Lecture Series. (2) Clinicians and researchers in health psychology from Los Angeles area present their research, programs, and/or clinical work as part of a 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.

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 Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. One 596 course is required during second year of graduate study, and one 596 or 599 course is required during each succeeding year of graduate study. (Terminal M.A. candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (2 to 12) Tutorial, to be arranged. Designed primarily as preparation for Ph.D. qualifying examinations. May be required by some area committees as a requisite for taking examinations. S/U grading.

599. Research for Ph.D. Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each year following completion of qualifying examinations. S/U grading.

Public Affairs Schoolwide Programs

School of Public Affairs

UCLA

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Box 951656
Los Angeles, CA 90095-1656

(310) 206-4613

e-mail: ppminor@spa.ucla.edu

http://www.spa.ucla.edu/minor/main2.cfm

Scope and Objectives

The School of Public Affairs offers an undergraduate minor in Public Affairs.

Undergraduate Study

Public Affairs Minor

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.

To enter the 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 or counselor at (310) 206-4613 or ppminor@spa.ucla.edu.

Required Core Courses (8 units): Public Policy 10A and one course from 10B, 101, 102, M116, 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, 104A, 104B, M104C, 104F, M108S, Urban Planning 141, M175; (b) labor and work cluster — Public Policy 141, C142, 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 applied); (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 School of Public Affairs not used to satisfy the core or cluster requirement; (3) capstone project to be completed during the senior year which may be satisfied by one of the following: (a) Public Policy 187, (b) Political Science M191DC or M194DC, or (c) 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 CM165, 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.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.
Scope and Objectives

The profession of public health is responsible for the protection, preservation, and promotion of the health of communities and populations. Although the health problems of today differ from those of the past and of the future, the professionals who make up the field need to be trained to respond to broad community problems utilizing the basic ideas of prevention of disease and promotion of well-being. This goal can be achieved only with an understanding of the health status of the population through data gathering and analysis, as well as knowledge of the complex relationships between disease process in the social and biological environment of the community.

The field of public health today needs practitioners from many disciplines. Candidates for graduate study may come from a wide variety of academic backgrounds, training, or experience, including both the natural and social sciences.

Undergraduate Study

Public Health Minor

The Public Health minor is designed for students who wish to learn more about core public health functions, including the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, the formulation of public policies designed to solve identified local and national health problems and priorities, the assurance that all populations have access to appropriate and cost-effective care, and the evaluation of the effectiveness of that care.

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 file a petition at the School of Public Health Student Services Office, 16-071A 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 Services 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 Services M110, C121, Public Health 53, M106, or M151. Transfer credit for any of the above is subject to school approval.
- All minor courses must be taken for a letter grade, with a minimum grade of C 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://www.gdnnet.ucla.edu. 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 Public Health offers two school-wide degrees, Master of Public Health (M.P.H.) and Doctor of Public Health (Dr.P.H.), and M.S. and Ph.D. degrees in Biostatistics, Environmental Health Sciences, Epidemiology, Health Services, and Public Health (offered through the Department of Community Health Sciences).

Two interdepartmental degree programs — the Doctor of Environmental Science and Engineering (D.Env), housed in the Department of Environmental Health Sciences, and the Ph.D. in Molecular Toxicology — are also available.

The M.S. program in Preventive Medicine and Public Health is not admitting new students at this time. For information on the Preventive Medicine Residency program, see http://www.ph.ucla.edu/pmr.


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. P/NP or letter grading.


151. Health Care in Transitional Communities. (4) (Same as Sociology M142.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of health care in transitional and disadvantaged communities. Fieldwork required. Letter grading.

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160A.) Lecture, four hours; possible field observations. First in a series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in a series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

Public Policy

School of Public Affairs

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(310) 286-0448, Admissions fax faculty: (310) 206-0337 fax administration/admissions: (310) 286-2381 e-mail: mppinfo@spastr.ucla.edu http://www.spa.ucla.edu/dpp/

Arleen Leibowitz, Ph.D., Chair

Professors

Joel D. Aberbach, Ph.D.
Albert Carnesale, Ph.D.
Michael R. Darby, Ph.D. (Warren C. Corder Professor of Money and Financial Markets)
Neal Halfon, M.D., M.P.H.
Joel F. Handler, J.D.
Sanford M. Jacoby, Ph.D. (Howard Noble Professor of Management)
Thomas J. Kane, Ph.D.
Mark A. Kleinman, Ph.D.
Arleen Leibowitz, Ph.D.
Susanne Lohmann, Ph.D.
Daniel J.B. Mitchell, Ph.D. (Ho-Su Wu Professor of Management)
Eric H. Monkkonen, Ph.D.
Barbara J. Nelson, Ph.D.
Mark A. Peterson, Ph.D.
Allen J. Scott, Ph.D.
Fernando M. Torres-Gil, Ph.D.
Lynne G. Zucker, Ph.D.

Professors Emeriti
Michael D. Intriligator, Ph.D.
Archie Kleingartner, Ph.D.
Richard N. Rosecrance, Ph.D.
Charles Y.ung, Ph.D.

Associate Professors
Andrew Sabi, Ph.D.
Michael A. Stoll, Ph.D.

Assistant Professors
J.R. DeShazo, Ph.D.
Meredith Phillips, Ph.D.
Sarah J. Reber, Ph.D.
Amy B. Zegart, 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 around the campus, as well as faculty unique to the department. 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 social insurance and welfare programs, unemployment and training, drug policy and crime, economic development, environmental quality, education, and health care. The department plays a major roll in two schoolwide programs: the Master of Public Policy (M.P.P.) degree and 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, and political processes. 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 John E. Anderson Graduate School of Management, 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 Schoolwide Programs 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://www.gdnnet.ucla.edu. 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. Three concurrent degree programs (Public Policy M.P.P/Law J.D., Public Policy M.P.P/Management M.B.A., and Public Policy M.P.P/Social Welfare M.S.W.) are also offered.

Public Policy
Lower Division Courses
10A. Introduction to Public Policy. (4) Lecture, three hours; outside study, nine hours. Overview of principal topics of contemporary policy analysis, developing their applications with examples from in-structor’s own research, visitors, small student projects, or field trips.

108. California Policy Issues. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 10A. Application of policy analysis to California issues. Guest lectures from practitioners and academicians along with readings and videos. Student written reports and oral presentations required. Letter grading.

Upper Division Courses
C101. Drug Abuse Control Policy. (4) (Formerly numbered 101.) 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 indicate 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 policy.

103. Ethics, Morality, and Public Life: Contemporary Controversies. (4) Lecture, four hours; outside study, eight hours. Study of ethical and moral questions that arise in public life. Goal is not to imbue 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 skills. Letter grading.

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 urban life: the different communities that live here (and in most other major cities) and political structure that binds 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 do political structure and culture 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 groups people to do difficult work. Introduction to literature and theory on leadership, examination of leadership and group dynamics, and challenge of leadership in times of stress and change. Letter grading.

C112. 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 for and against several important education policies and to encourage students to critically evaluate logic and evidence behind these policies. Concurrently scheduled with course C225. Letter grading.


M116. Nuclear Weapons: Critical Decisions. (4) (Same as Environment M165, Honors Collegium M119, and Political Science M139B.) Lecture, three hours. Examination of critical decisions regarding nuclear weapons, starting with President Roosevelt’s decision to build atomic bomb and ending with current policies on containing nuclear proliferation and on avoiding nuclear catastrophe. Letter grading.


M120. Race, Inequality, and Public Policy. (4) (Same as Afro-American Studies M120.) Lecture, three hours. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

C124. Budget Politics, Social Policy, and Entitlement Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budgeting in the U.S., with emphasis on financing of public safety net. Exploitation of budgetary processes as setting both for gaining substantive knowledge about how government really works and for developing political skills required to influence resource allocation decisions. Concurrently scheduled with course C239. Letter grading.

125. Rights and Wrongs of Affirmative Action. (4) (Formerly numbered C125.) Lecture, three hours; discussion, one hour. Exploration of race-based affirmative action from moral, political, and social philosophy standpoint. Topics include defining discrimination, individual and group equality; different meanings of “diversity”; meritocracy and its critics; historical and future-based arguments; sociology of values; possibilities for moral compromise. Letter grading.

142. Labor Markets and Public Policy. (4) Lecture, three hours; outside study, nine hours. Highly recommended preparation: prior microeconomics course. Survey of major topics in economic analysis of labor markets and public policies toward labor market. Topics include labor force trends and measurement, compensation determination, productivity, inter- nal labor markets, human capital, union wage effects, unemployment, and minority and female labor-market experience. Concurrently scheduled with course CM250. Letter grading.

144. Comparative Industrial Relations. (4) Lecture, three hours; outside study, nine hours. Requir- usite: course 10A. At national and international levels, historical and contemporary comparison of political, social, and industrial contexts influencing human resource systems of selected developed countries. In addition to discussing possible frameworks for analyzing human resource systems, examine the nature of institutions of labor, management, and government, and interaction of their power relationships; substance and manner of determina- tion 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 Perspec- tive. (4) Lecture, three hours; outside study, nine hours. Requir- usite: course 10A. At national and international levels, historical and contemporary comparison of political, social, and industrial contexts influencing human resource systems of selected developed countries. In addition to discussing possible frameworks for analyzing human resource systems, examine the nature of institutions of labor, management, and government, and interaction of their power relationships; substance and manner of determina- tion of “web of rules” governing rights and obligations of the parties; and resolution of conflicts. Concurrently scheduled with course CM231. Letter grading.

146. Democracy, Disobedience, and Dissent. (4) (Formerly numbered C146.) Lecture, three hours; outside study, nine hours. Outside study, nine hours. Requir- usite: course 10A. Introduction to key issues arising at interface be- tween business and government policy. Discussion of why business government focuses so intensively on regulating economic outcomes, nature of business/government relationship, political implications of policies and legal obligation and their critics; justified disobedience in response to inequality, injustice, and social exclu- sion; moral and religious pluralism as argument for both obedience and dissent. Letter grading.

147. Critical Policy Issues and Problems in Glo- balizing World. (4) Lecture, three hours; outside study, nine hours. To enable students to (1) think of world in dynamic 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 history. Concurrently scheduled with course C245. Letter grading.

148. Business and Public Policy. (4) Lecture, three hours; outside study, nine hours. Requir- usite: course 10A. Introduction to key issues arising at interface be- tween business and government policy. Discussion of why business government focuses so intensively on regulating economic outcomes, nature of business/government relationship, business political activity, and major gov- ernment policies. Topics include economic regulation (industrial organization, antitrust, labor); social regulation of business (energy, environment, risk, lia- bility, corporate governance); and corporate social re- sponsibility, business ethics, and green business. Dis- cussion of topics in historical and political con- text, with comparison between economic regulation in the U.S. and other countries. Letter grading.

187. Research Seminar: Public Policy. (4) Formerly numbered 197.) Seminar, three hours; outside study, nine hours. Requir- usite: course 10A. Limited to and required of seniors in Public Affairs minor. Pro- duction of research project that examines in depth a particular policy issue in its social context, including political pressures involved and problems of imple- mentation; role of research and development, analysis, conceptualization, and written analysis and presentation. Letter grading.

191A. Variable Topics in Public Policy. (4) Formerly numbered 192.) Seminar, three hours; outside study, nine hours. Examination of particular subfields of policy studies (e.g., international policy, crime poli- cy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and de- velopment 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 in Public Policy. (3) Semi- nar, three hours. Examination of particular subfields of policy studies (e.g., international policy, crime poli- cy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and de- velopment 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 in Public Policy. (2) Semi- nar, 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 de- velopment 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. Marshak Colloquium: Social Sciences. (2) Seminar, two hours. Limited to undergraduate stu- dents. Attendance at biweekly Marshak Colloquium presentations, highly regarded and long-standing interdisciplinary lecture series given by leading social scientists in the field. Consideration of particular top- ics and research models in behavioral sciences. Let- ter grading.

197. Individual Studies in Public Policy. (2 or 4) (Formerly numbered 197.) Tutorial, four hours. Prepa- rations are subject to instructor's approval. May be repeated for credit with major change or topic change. Let- ter grading.

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 review of economic principles and basic micro- economic 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 Process- es. (4) Lecture, three hours; outside study, nine hours. Designed to provide background necessary to develop strategies for public policy applications. Concepts of political institutions and process, origins of public policy, and environment of policy and administration. Discussion of U.S. constitutional arrangements, followed by in- strumental and integrative examination of primary in- stitutions and processes of public policy from the vantage of 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). Re- view of statistical principles useful to policy research and analysis. Topics include descriptive statistics, ex- pectations, univariate distribution, probability, covari- ance and correlations, statistical independence, ran- dom sampling, estimators, unbiasedness and effi- ciency, statistical inference, confidence intervals, and hypothesis testing. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture, three hours; outside study, nine hours. Requir- usite: course 201. Second course in two-term se- quence (see course 202) covering both theory and policy applications. Topics include monopoly, factor markets, general equilibrium, welfare economics, ex- ternalities, public goods, uncertainty, and intertempo- ral optimization. Letter grading.

205. Bureaucracy and Public Management. (4) Lecture, three hours; outside study, nine hours. Prob- lems posed by behaviors within and by bureau- cracies. Conceptual tools for comprehending organiza- tion environment in which policy analyst works; tools for understanding role of manager with such organiza- tions. Practical suggestions for policy analyst at- tempting to navigate waters of bureaucracy. Theoreti- cal analysis integrated with case studies. Letter grad- ing.

206. Political Economy of Policy Adoption and Im- plementation. (4) Lecture, three hours; outside study, nine hours. Analysis of how policy is formed, adopted, and implemented. How policies are formu- lated, by whom, how policy agendas are set, how to define related policies, and how policy analysts attempt to navigate waterways of bureaucracy. Theoreti- cal analysis integrated with case studies. Letter grad- ing.

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 business/government relations. Analysis of do- mestic policy options nations are pursuing in re- sponse to economic globalization, such as protection- ism, mercantilism, and deregulation. Introduction to international coalitions being formed, including NAF- TA, and to nongovernmental organizations created to deal with special problems such as global environ- mental 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 contempo- rary literature and case studies. Consideration of vari- ous ways in which terms such as “democracy” and “liberty” are used in public discourse. Practice in de- veloping and defending moral arguments, both orally and in writing. Letter grading.


211. Aging Policy, Elderly, and Families. (4) (Same as Social Welfare M226A) Lecture, three hours; outside study, nine hours. Designed for gradu- ate students. Examination of theoretical models and concepts of policy process and application to aging policy, analysis of principles of decision-making processes that af- fect social policies. Description of historical develop- ment of contemporary policy. Exploration of current proposals and issues. 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 review of economic principles and basic microeconomic theory and policy applications. Consumer theory and demand, producer theory and supply, equilibrium of product and factor markets. Letter grading.

202. American Political Institutions and Process- es. (4) Lecture, three hours; outside study, nine hours. Designed to provide background necessary to develop strategies for public policy applications. Concepts of political institutions and process, origins of public policy, and environment of policy and administration. Discussion of U.S. constitutional arrangements, followed by instrumental and integrative examination of primary institutions and processes of public policy from the vantage of interests to legislatures, bureaucracies, and courts. Letter grading.
M212. Child Welfare Policy. (4) (Same as Social Welfare M290.U.) 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 infrastructure to support needs of children and families. S/U or letter grading.

M213. Mental Health Policy. (4) (Same as Social Welfare M290K.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.

M214. Poverty, the Poor, and Welfare Reform. (4) (Same as Social Welfare M290L and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in the U.S. S/U or letter grading.

M215. Health Policy. (4) (Same as Social Welfare M290N.) Lecture, three hours. Introduction to contemporary issues in health care financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

M216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290Q.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.


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, interview, and survey design. Letter grading.


M220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M254.) Lecture, three hours. Historical evolution of urban form and transportation systems, inmetropolitan 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 M256.) Lecture, three hours. Requirements: 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 M257.) Lecture, three hours. Overview of transportation finance and economics, concepts of equity and efficiency in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road cost 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, overview of climate change and fuels in vehicles; implications of automobile fleet size on the global warming issue; growth of automobile worldwide fleet; automobile in sustainability debate. Letter grading.

M224A. Introduction to Geographic Information Systems. (4) (Same as Urban Planning M206A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course, familiarity with one packaged statistics program. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address a planning problem. Letter grading.

M224B. Advanced Geographic Information Systems. (4) (Same as Urban Planning M206B.) Lecture, four hours; laboratory, four hours. Requirements: course M224A or Urban Planning M206A. Principles and skills of geographic analysis and modeling; managing, processing, and interpreting spatial data. Especially useful for students interested in transportation, air quality, and policy formulation. Letter grading.

C225. 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, charter schools, and school choice. Introduction to major arguments for and against several important education policies. Letter grading.

C226. Management Challenges and Tools for Nonprofit Sector. (4) (Same as Urban Planning M208.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Development of infrastructure to support needs of children and families. Nonprofit organizations, legal and policy environment, and skills of geographic analysis and modeling; management, processing, and interpreting spatial data. Especially useful for students interested in transportation, air quality, and policy formulation. Letter grading.

M227. Nonprofit Sector, State and Civil Society. (4) (Same as Social Welfare M290S and Urban Planning M288.) Lecture, three hours; outside study, nine hours. Designed for graduate students. 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 the U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between the U.S. and other countries. Letter grading.

M228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Welfare M241E and Urban Planning M298.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action for attaining social welfare objectives; research and field experiences directed toward study of social problems in context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

CM230. Labor Markets and Public Policy. (4) (Same as Management M259C.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of major topics in economic analysis of labor and public policies toward labor market. Topics include labor force trends and measurement, compensation determination, productivity, internal labor markets, human capital, union wage effects, unemployment, and minority and female labor-market experience. Concurrently scheduled with course C142. S/U or letter grading.

CM231. Comparative Industrial Relations. (4) (Same as Management M255.) Lecture, three hours; outside study, nine hours. Requirements: Management 409 or elementary knowledge of labor economics. At national and international levels, historical and contemporary analysis of political, social, and economic contexts influencing labor relations and collective bargaining for 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 power relationships; substance and manner of determination of “web of rules” governing rights and obligations of the parties; and resolution of conflicts. Concurrently scheduled with course C144. S/U or letter grading.

M232. Labor Relations: Process and Law. (4) (Same as Management M250A.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Drawing on resources of UCLA Business and Labor Forecasting Program, focuses on general features of California labor market, analysis of employment fluctuations and forecasting techniques including linkages between employment fluctuations in California and elsewhere in the country, and social issues related to labor market. Letter grading.

CM233. Employment Issues in California. (4) Lecture, three hours; outside study, nine hours. Examination of analytical tools and conceptual models needed to understand policies directed toward people in lower tail of income distribution. Concepts include static and dynamic labor supply, labor demand, compensating differentials, human capital, and economic models of immigration and crime. Letter grading.

C235. 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 toward psychoactive substances. Concurrently scheduled with course C101. Letter grading.

C237. Ethical Questions in Public Life. (4) Lecture, three hours; outside study, nine hours. Introduction to moral issues that commonly arise in public life. Ethics of political roles, compromise and moral integrity, lying and deception, place of rhetoric in defending stand on issues, politics and violence. Letter grading.
C239. Budget Politics, Social Policy, and Entitle-
ment Reform. (4) Lecture, three hours; outside study, nine hours. Examination of politics of public budgeting in the U.S., with emphasis on financing of social safety net. Exploitation of budgetary process as setting both for gaining substantive knowledge about how government really works and for developing polit- ical skills required to influence resource allocation deci-

M240. Theories of Regional Economic Develop-
ment I. (4) [Same as Urban Planning M236A.] Lecture, three hours; laboratory, 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 lev-
els of economic development, relations between more and less developed regions. Letter grading.

M241. Introduction to Regional Planning. (4) [Same as Urban Planning M230.] Lecture, three hours. Critical and historical survey of evolution of re-
gional planning theory and practice, with particular emphasis on relations between regional planning and developments within Western social and political phi-
losophy. Major concepts include regions and regional-
ism, territorial community, and social production of space. Letter grading.

242. Regional Development, Urbanization, and In-
dustrial Policy. (4) [Formerly numbered M242.] Lecture, three hours; laboratory, nine hours. Survey of regional development, with special reference to "new economic geography" and its relevance for formula-
tion of local economic development policies. Letter grading.

M243. Community Development and Housing Pol-
icies: Roles of State, Civil Society, and Nonprof-
its. (4) [Same as Social Welfare M290U and Urban Planning M275.] Lecture, three hours; outside study, nine hours. Designed for graduate students. Examina-
tion of role of U.S. housing policy and role of gov-
ernment 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.

M244. Transportation Planning. (4) [Same as Urb-
an Planning M255.] Lecture, three hours. Examina-
tion of how planners analyze, manage, and operate transportation systems. Measuring system perform-
ance, intelligent transportation systems, transporta-
tion system demand management, parking manage-
ment, freight movement and facilities, public transit evaluation and management, paratransit, bicycle and pedestrian planning, transportation for elderly and disabled. Letter grading.

C245. Critical Policy Issues and Problems in Glo-
balizing World. (4) Lecture, three hours; outside study, nine hours. To enable students to (1) think of world in dynamic 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 history. Concurrently scheduled with course C147. Letter grading.

M247. Strategic Planning for Public and Nonprofit Organizations. (4) [Same as Social Welfare M241F and Urban Planning M290.] Lecture, three hours; out-
side study, nine hours. Designed for graduate stu-
dents. Technical processes of problem solving re-
grading substantive social welfare problems at com-
unity 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.

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 economics is used to define, analyze, and re-
solve problems of environmental management. Over-
view of analytical questions addressed by environ-
mental economists which bear on public policies. Concurrently scheduled with course C115. Letter grading.

M266. Advanced Topics in Health Economics. (4) [Same as Health Services M252.] Seminar, four hours. Requisites: Health Services 200A, 200B, 223.6. Advanced treatment of number of topics in health economics, including mental health econom-
ice, pharmacoeconomics, and relationships between labor supply, welfare, and health. Letter grad-
ing.

M267. Medicare Reform. (4) [Same as Health Ser-
vices M252.] Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to ana-
lyze problems with existing medicare program and to develop specific options for reforming features of pro-
gram to accommodate coming pressures generated by retirement of baby-boom generation. Letter grad-
ing.

M268. Microeconomic Theory of Health Sector. (4) [Same as Health Services M236.] Lecture, four hours; discussion, two hours. Preparation: Intermediate microeconomics. Requisite: Biostatistics 100A. Microeconomic aspects of health care system, includ-
ing health manpower substitution, choice of efficient methods of treatment, market efficiency, and competi-
tion. Letter grading.

M269. Health Care Policy and Finance. (4) [Same as Health Services M269.] Seminar, three hours; out-
side study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medic-
ad and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer, protection, and competition, and role of health care. Letter grading.

271. Urban Poverty, Workforce Development, and Public Policy. (4) Lecture, three hours; outside study, nine hours. Required for graduate students. Examina-
tion of how urban labor markets function, particularly within low-skill labor markets, and exploration of how public and private interventions affect outcomes for disad-
vantaged populations. In first half of course, major the-
ories of low-skilled workers’ labor market problems in employment and wages; in second half, employment and training programs, policy initiatives and imple-
mementation, and directions in workforce develop-
ment. Letter grading.

C272. Crisis Decision Making in U.S. Foreign Poli-
cy. (4) Lecture, three hours; outside study, nine hours. In-depth look at theory and practice of U.S. for-
egnance-making. Assessment of competing theo-
ries of international relations and application to spe-
cific case studies. Weekly role plays of foreign policy-
makers and final crisis simulation exercise. Concur-
rently scheduled with course C117. Letter grading.

M273. Building Stronger Communities for Los An-
geles. (4) [Same as Community Health Sciences M273.] Lecture, four hours. Designed for graduate students. Introductory survey course on family-cen-
tered community building (FCCB) to introduce gradu-
ate students as well as community practitioners to range of topics that mark key regions to help build stronger, more cohesive, and family-centered com-
unities. Letter grading.

M280A. Research and Development Policy. (4) [Same as Management M292A.] Lecture, three hours. Emphasizes role of R&D in development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral consider-
ations; coupling of science, technology, and econom-
tical issues; effects of and forecasting technologi-
cal futures. S/U or letter grading.

M280B. Growth, Science, and Technology. (4) [Same as Management M292B.] Lecture, three hours. Economic growth and change. Role of advanc-
ing scientific and technological knowledge in enhanc-
ing innovators and factors impinging on their behav-
ior. How technological breakthroughs (or discontinui-
ties) can form new industries or transform nature of and production of firms in existing industries. S/U or letter grading.

290. Special Topics in Public Policy. (4) Discus-
sion, three hours. Advanced seminar on emerging is-
isues in public policy. May be repeated for credit. Let-
ter grading.

291. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Designed for gradu-
ate students. Techniques of policy analysis with appli-
cations to benefit and cost; optimization and constraint,
risk, risk aversion, risk spreading; tax incidence, in-
centive effects, and deadweight loss; strategic inter-
actions (games and negotiations). Emphasis on con-
tents rather than computation. Letter grading.

292. Quantitative Policy Analysis. (4) Lecture, three hours. Requisites: courses 203, 208. Explora-
tion of additional statistical and econometric tools (e.g., discrete choice analysis, methods to deal with endogeneity, bias, and other sources of data) as follow-up to requisite courses. Application of statis-
tical tools in conduct of analysis and evaluations of public policy initiatives and policy-relevant issues. Let-
ter grading.

M293. Privatization, Regulation, and Public Fi-
nance. (4) [Same as Urban Planning M243.] Lecture, three hours; outside study, nine hours. Required: course 201. Evaluation of economic and political de-
terminants of trend toward privatizing public services, and equity and efficiency outcomes of this trend as expressed through new pricing, financing, and ser-
vice-level policies. Exploration of new regulatory roles. 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.

M295. Law and the Poor. (4) [Same as Law M215, Social Welfare M290R, and Urban Planning M248.] Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in the U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Current reform con-
sensus and major reforms. Letter grading.

297A. Marschak Colloquium: Policy Implications in Behavioral Sciences. (4) [Formerly numbered 227A.] Seminar, two hours. Limited to graduate stu-
dents. Students attend biweekly Marschak Collo-
quium 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 presen-
tations. Letter grading.

297B. Introduction to Public Policy. (2) Lecture, three hours; discussion, one hour. Designed for gradu-
ate students. Introduction to purposes and methods of public policy analysis. Exposure to key concepts and tools, such as market failure, decision analysis, cost/ benefit analysis, group behavior, and implementation. Case studies supplement lectures and texts. S/U grad-
ing.

298. Applied Policy Analysis I: Seminar. (4) Seminar, three hours; outside study, nine hours. Preparation: completion of M.P.P. core curriculum, two policy cluster courses, and internship (unless waived). First course in three-term sequence in which students prepare major public policy projects and pa-
ters that are case studies of policy evaluation and im-
plementation and are equivalent to professional mas-
ter’s theses. Papers build on prior core courses, in-
ternational experience, and policy cluster courses. Letter grading.
The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Medical Center, West Los Angeles VA Medical Center, and divisions of experimental radiation biology and medical radiation physics. Research and teaching facilities are available at the UCLA Medical Plaza, UCLA Medical Center, and West Los Angeles VA Medical Center.

The primary clinical mission of the department is the management of patients who have cancer. The purpose of using radiation therapy, rather than or in addition to surgery, is to preserve function and/or cosmesis while eliminating the cancer. Other activities include total body irradiation before bone marrow transplantation and stereotactic radiosurgery for A-V malformations, meningiomas, and malignant intracranial lesions. Research interests include clinical trials, radiation biology, radiation modifiers, molecular biology, immunology, and applied physics. Knowledge of the disease in question, the comparative efficacy of radiation therapy and other methods, radiation biology and pathophysiology, and the physical characteristics of various radiations is essential.

The educational programs serve medical, dental, basic science (biology and physics), nursing, and radiation therapy students, and community and postgraduate physicians; there also is a four-year program for residents who are qualifying for certification in radiation oncology by the American Board of Radiology.

For further details on the Department of Radiation Oncology and a listing of the courses offered, see http://www.radonc.ucla.edu.
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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: A minimum of 14 upper division courses from the list below, of which at least four (including Study of Religion 100 and Philosophy 175) must be from Group I, at least two must be from each of Groups II and IV, and at least three must be from Group III (at least one on each of the three religious traditions listed). No more than five of the 14 may be from any one group. A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. Variable topics courses not listed below (e.g., History 191) may be approved by the adviser as satisfying requirements for which their content is appropriate. A maximum of two upper division courses, not listed below, in an ancient language relevant to the course of study may be applied toward the major requirements (but not the group requirements) with consent of the adviser.

Special studies courses (197 and 199) may be applied toward the major but not toward a group requirement; a maximum of 12 units, approved by the adviser, may be applied. No course for the major or preparation for the major may be taken on a P/NP grading basis.

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 199 courses under the guidance of the sponsoring professor. The first 199 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 14 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 199 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For further information, contact Professor S. Scott Barchy at the program address.

Study of Religion
Upper Division Courses
100. Undergraduate Seminar: Study of Religion. (4) Limited to 20 students. Interdisciplinary approach to some major topics in study of religion, such as religion and politics, mysticism, ideas of revelation, myth and religion, worship and ritual. May be repeated for credit with consent of instructor.
110. Religion and Violence. (4) Seminar, three hours; discussion, one hour. Exploration of capacity of religion to mobilize and legitimate violence. Materials include theoretical texts by Rene Girard, Walter Burkert, Jonathan Z. Smith, and David Rapoport and case studies dealing with religion and violence in India, Northern Ireland, Egypt, Lebanon, Israel, Palestine, Sri Lanka, and the U.S. Letter grading.
120. 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. Letter grading.
199. Special Studies. (2 to 4) Tutorial, to be arranged. Designed for juniors/seniors. Intensive directed research program. Twelve units may be applied toward the major. Letter grading.

Course List
Courses marked with an asterisk have readings in foreign languages. See departmental course listings for requisites.

Group I: Methods
Anthropology
130. Study of Culture
156. Comparative Religion
History
186C. Jesus of Nazareth in Historical Research
Philosophy
175. Topics in Philosophy of Religion
Study of Religion
100. Undergraduate Seminar: Study of Religion
110. Religion and Violence
120. Abrahamic Religions: Traditions in Tension
Theater
101A. Making Tradition

Group II: Nonliterate and Ancient Religious Traditions
Ancient Near East (Near Eastern Languages)
130. Ancient Egyptian Religion
114P. Ancient Civilizations of Mesoamerica
114Q. Topics in Archaeology of Mesoamerica
171. Sub-Saharan Africa
174P. Ethnography of South American Indians
177. Cultures of the Pacific
Classics
166A. Greek Religion
166B. Roman Religion
167. Greek and Roman Magic
168. Comparative Mythology
English
111D. Celtic Mythology
History
M185D. Religions of Ancient Near East

Group III: Western and Near Eastern Religious Traditions
Christianity
Art History
105A Early Christian Art
Classics
M170C. Power and Imagination in Byzantium
Greek (Classics)
*130. Readings in the New Testament
History
117C. Christian Church, 100 to 1517
118B. Christian Religion, 100 to 1530
121B. History of Modern Europe: Baroque Culture and Absolutist Politics, 1600 to 1715
142C. History of Religion in the U.S.
186A. History of Early Christians
186B. Religious Environment of Early Christians
186C. Jesus of Nazareth in Historical Research
Philosophy
100B. Medieval and Early Modern Philosophy
104. Topics in Islamic Philosophy
105. Medieval Philosophy from Augustine to Maimonides
107. Topics in Medieval Philosophy
118. Kierkegaard
155. Medical Ethics
Slavic (Slavic Languages)
201. Introduction to Old Church Slavic
Islam
Arabic (Near Eastern Languages)
*120. Islamic Texts
Art History
C104C. Problems in Islamic Art
History
106A. Premodern Islam
108A. History of North Africa from Islamic Conquest
Islamics (Near Eastern Languages)
110. Introduction to Islam
Judaism
Ancient Near East (Near Eastern Languages)
162. Archaeology and Religion of Israel
170. Introduction to Biblical Studies
Comparative Literature
M101. Hebrew Literature in English — Literary Traditions in Ancient Israel: Bible and Apocrypha
Hebrew (Near Eastern Languages)
*120. Biblical Texts
125. Hebrew Bible with Medieval Commentaries
*130. Rabbinic Texts
History
M182A. Ancient Jewish History from Patriarchs to Rabbis
M182B. Between Crescent and Cross: Jewish Middle Ages
M182D. European Jewry from 1881 to the Present
M182E-M182F. Jewish Intellectual History
Jewish Studies (Near Eastern Languages)
130. Modern Jewish Religious Movements and Their Ideologies
M150A-150B. Hebrew Literature in English

Sociology
159. Comparative Studies of Jewish Communities in the U.S. and Abroad

Group IV: South Asian and East Asian Traditions

Art History
114A. Early Art of India
114C. Japanese Art
114D. Later Art of India
114E. Arts of Korea
114F. Arts of Southeast Asia

Asian (Asian Languages)
161. Buddhist Literature in Translation
162. Buddhist Meditation Traditions

Chinese (Asian Languages)
C160. Chinese Buddhism
*165. Introduction to Chinese Buddhist Texts
C175. Introduction to Chinese Thought
265A-265B. Seminars: Chinese Buddhist Texts

History
173C. Shinto, Buddhism, and Japanese Folk Religion
174A. Early History of India
185B, 185C. Religions of South and Southeast Asia

Japanese (Asian Languages)
C160. Japanese Buddhism
161. Religious Life in Modern Japan
175. Introduction to Japanese Thought
265A. Seminar: Japanese Buddhist Texts

Korean (Asian Languages)
C160. Korean Buddhism
*165. Introduction to Korean Buddhist Texts
175. Introduction to Traditional Korean Thought

South Asian (Asian Languages)
175. Introduction to Indic Philosophy

ROMANCE LINGUISTICS AND LITERATURE
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Edward F. Tuttle, Ph.D., Chair

Faculty Advisory Committee

Franco Betti, Ph.D. (Italian)
Jean-Claude Carron, Docteur ès Lettres (French and Francophone Studies)
Massimo Ciavolella, Ph.D. (Italian)
Eric L. Gans, Ph.D. (French and Francophone Studies)
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Claudia Parodi-Lewin, Ph.D. (Spanish and Portuguese)
A. Carlos Quicoli, Ph.D. (Spanish and Portuguese)
Dominique L. Sportiche, Ph.D. (Linguistics)
Edward F. Tuttle, Ph.D. (Italian)

Scope and Objectives

The Romance Linguistics and Literature Program emphasizes modern linguistic and literary theories in the study of Romance languages. Linguistic and literary theories can be pursued independently or jointly; however, the integration of linguistic and literary knowledge is taken to be one of the highest aims of this interdepartmental graduate program.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdn.et.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Romance Linguistics and Literature Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Romance Linguistics and Literature.

Graduate Courses

M202A-M202B. Comparative Romance Historical Grammar. (4-4) (Formerly numbered 202A-202B.) (Same as Italian M222A-M222B.) Lecture, three hours. Each course may be taken independently for credit. S/U or letter grading. M202A. Phonology, Principal sound changes from late Latin to main Romance dialects. M202B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Roman dialects.

M204A-M204B. Romance Syntax: French. (4-4) (Same as Linguistics CM222A-CM222B.) Lecture, four hours. Preparation: some knowledge of French (or a Romance language). Requisite: Linguistics 120B. Course M204A is requisite to M204B. Aspects of grammatical structure of a selected Romance language. May be repeated for credit with topic change. S/U or letter grading.


M211. Comparative Romance Syntax. (4) Lecture, three hours. Requisite: Linguistics 120B. Aspects of grammatical structure of a selected Romance language. May be repeated for credit with topic change. S/U or letter grading.

M250. Topics in Romance Syntax. (1 to 4) Topics in syntax of Romance languages, with emphasis on recent development in comparative studies; theoretical innovations based on Romance syntax.

M596. Directed Individual Study or Research. (4 to 8) Tutorial, to be arranged. Study or research in areas or on subjects not offered as regular courses. Eight units may be applied toward M.A. degree requirements. S/U grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Individual preparation for M.A. comprehensive examination or Ph.D. qualifying examinations. May be taken only once for each degree and only in term that comprehensively or qualifying examinations are to be taken. S/U grading.


Course List

In consultation with the appropriate adviser(s), courses should be selected with an eye to the organic relationship between them, preferably among those listed below and/or their requisites:

Introductory Courses

Italian
201. Bibliography and Methods of Research
202. Introductory Courses

Spanish
M200. Research Resources

Linguistics Courses

Grammatical Theory: Linguistics
201. Phonological Theory II
206. Syntactic Theory II

Development of Romance Languages

Hispano-Romance: Spanish
M205A-M205B. Development of Portuguese and Spanish Languages

Indo-European: Indo-European Studies
210. Indo-European Linguistics: Advanced Course II
280A-280B. Seminars: Indo-European Linguistics

Italian Dialects: Latin
242. Italic Dialects and Latin Historical Grammar

Italo-Romance: Italian
225. Cultural History of Italian Language

Latin History: Latin
240. History of the Latin Language

Medieval Latin: Latin
231A-231B. Seminars: Medieval Latin

Paleography: History
218A-218B. Paleography I, II

Romance Dialectology: Italian
224. Italo-Romance Dialectology

Spanish
209. Dialectology

Romantic Linguistics: Linguistics
225G. Linguistic Structures

Vulgar Latin: Latin
232. Vulgar Latin

Studies in History of Romance Languages

Gallo-Romance: French
214. Problematics of Medieval Language and Literature

Hispano-Romance: Spanish
M251A-M251B. Studies in Gallo-Portuguese and Old Spanish

Italo-Romance: Italian
210. Studies in Early Italian Literature
223. Structures of Modern Italian
224. Italian-Romance Dialectology

225. Cultural History of Italian Language

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Synchronic Linguistics

Italian
223. Structures of Modern Italian

Portuguese
202. Synchronic Morphology and Phonology
204A-204B. Generative Grammar

Spanish
202A. Phonology
202B. Morphology
204A-204B. Generative Syntax and Semantics

Studies in Linguistics and Dialectology: Spanish
256A-256B. Studies in Spanish Linguistics
257. Studies in Dialectology

Literature Courses

History of Ideas: French
207. Studies in History of Ideas

Literary Criticism: French
200. Contemporary French Theories

Italian
205A-205B. Studies in Criticism

Spanish
M201A-M201B. Literary Theory and Criticism

Early Romance Literature

Petrarca: Italian
214C. Studies in Medieval Literature: Petrarca’s Canzoniere
251. Seminar: Petrarch

Studies in Early Romance Literature: French
215A-215B. Medieval Literature

Italian
210. Studies in Early Italian Literature
214A-214F. Studies in Medieval Literature
215A-215B. Studies in 15th-Century Literature
250A-250D. Seminars: Dante
252. Seminar: Boccaccio

Portuguese
C224. Early Portuguese Literature

Spanish
222. Medieval Epic and Narrative Poetry
223. Medieval Prose
262A-262B. Studies in Medieval Spanish Literature

Modern Romance Literature

Genre Studies: Portuguese
252. Studies in Early Portuguese Literature
253. Studies in Modern Portuguese Literature
254. Studies in Early Brazilian Literature
255. Studies in Modern Brazilian Literature

Studies in the 18th Century: French
218. Enlightenment

Italian
218A-218D. Studies in 18th-Century Literature
256A-256B. Seminars: 18th Century

Portuguese
C227. 19th-Century Portuguese Literature
C232. 19th-Century Brazilian Literature and Culture

Spanish
229. Romanticism
239. Romanticism and Realism in Spanish-American Literature
270A-270B. Studies in 18th-Century Spanish Literature
277A-277B. Studies in Colonial Spanish-American Literature

Studies in the 19th Century: French
219. 19th Century

Italian
219A-219D. Studies in 19th-Century Literature
257A-257B. Seminars: Romanticism

Portuguese
C228. Post-Romanticism and Naturalism in Portuguese Literature

Spanish
230. Realism and Naturalism
271A-271B. Studies in 19th-Century Spanish Literature
278A-278B. Studies in 19th-Century Spanish-American Literature

Studies in the 20th Century: French
220. 20th Century

Italian
220. Studies in Turn-of-the-Century Literature
221A-221E. Studies in 20th-Century Literature
258A-258B. Seminars: Contemporary Italian Literature

Portuguese
C229. 20th-Century Portuguese Literature
C234. Brazilian Modernism
C235. 20th-Century Brazilian Literature

Spanish
232. Spanish Prose Literature from 1898 to the Civil War
233. Spanish Prose Literature after the Civil War
234. Spanish Drama and Poetry from 1898 to the Civil War
235. Spanish Drama and Poetry after the Civil War
240. Major Currents in Modern Spanish-American Literature
243A-243B. Contemporary Spanish-American Poetry
244A-244B. Contemporary Spanish-American Novel
245. Contemporary Spanish-American Essay
272A-272B. Studies in 20th-Century Spanish Literature
280A-280B. Studies in Contemporary Spanish-American Literature

Renaissance and Baroque Literature

Cervantes: Spanish
227. Cervantes

Studies in Renaissance and Baroque Literature: French
216. Renaissance
217. 17th Century

Italian
216A-216E. Studies in the Renaissance
217. Studies in 17th-Century Literature
253A-253B-253C. Seminars: Chivalric Poetry in Italy
255A-255B. Seminars: Baroque

Portuguese
C225. Camões and the Portuguese Renaissance
C226. Baroque and Neoclassical Portuguese Literature
C231. Colonial Brazilian Literature and Culture

Spanish
224. Poetry of the Golden Age
225. Drama of the Golden Age
226. Prose of the Golden Age
237. Literature of the Spanish Conquest
264A-264B. Studies in Golden Age Spanish Literature

Scope and Objectives

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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 curricula are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four-year programs for incoming freshmen and two-year programs for students who apply early in their sophomore year. 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 between $250 and $400 per month during the academic year. Applications for four-year scholarships may be obtained by calling (310) 825-1742 or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Station, NY 11746-2102. When writing, specify that the Air Force scholarship is desired.
Undergraduate Study

Four-Year Program

The four-year program is available to first-term freshmen and those full-time students with at least three and one half years of undergraduate and/or graduate study remaining and consists of an initial two-year General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course (POC) described under Two-Year Program. GMC participation requires one hour of academic class 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 GMC and wish to enter POC attend a four-week field training course the summer following GMC completion. At field training, students 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.

Two-Year Program

The two-year program is known as the Professional Officer Course (POC) and consists of Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C. POC participation requires three hours of leadership laboratory and three hours of academic class each week during the academic year.

Requisites for the two-year program are successful completion of the GMC and a four-week field training course (see Four-Year Program above), or successful completion of a six-week field training program on an Air Force base during the summer preceding enrollment in the program.

Students interested in the six-week field training program must apply to the department chair early during Fall Quarter of their sophomore year. U.S. citizenship is required. There is no obligation to apply. 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 the six-week summer field training are provided meals, quarters, clothing, and travel and incidental expenses. Subjects are the same as those in the four-week course plus the academic portion of the GMC (see Four-Year Program above).

Students enrolled in the POC incur a military obligation and are paid from $350 to $400 per month during the academic year. Additionally, they may compete for a scholarship up to full tuition, fees, and $600 for textbooks. 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

2. Leadership Laboratory. (No credit) Laboratory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with practical command and staff leadership experiences through performance of various tasks within framework of an organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. No grading.

1A-1B-1C. Foundation of U.S. Air Force. (2-2-2) Lecture, one hour. Survey course designed to introduce students to the U.S. Air Force and Air Force Reserve Officers' Training Corps. Topics include mission and organization of the Air Force, officer ethics 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. Features 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 an Air Force junior officer. Use of case studies to examine Air Force leadership and management situations as means of demonstrating and practicing 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 the military as a profession, officer leadership, military justice, civilian control of the military, preparatory 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) Formerly numbered 199.) 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. Individual contract required. P/NP or letter grading.

ROTC PROGRAM – MILITARY SCIENCE

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Shawn P. Buck, M.B.A., Lieutenant Colonel, Chair

Professor

Shawn P. Buck, M.B.A., Lieutenant Colonel

Adjunct Assistant Professors

Ariel E. Axelrod, M.A., Major

Eric C. Cortes, B.S., Major

Robert B. Johns, B.A., Captain

Barry A. Johnson, B.A., Major

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 curricula are not considered academic majors, but ROTC courses may be taken as free electives.
and applied toward the total course requirements of a major. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four-year programs for incoming freshmen and two-year programs for students who apply early in their sophomore year. The Army also offers a three-year program for students who apply before the end of their freshman year. 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 tuition, a book allowance, fees, and a tax-free monetary allowance between $250 and $400 per month during the academic year. Applications for four-year scholarships may be obtained by calling (310) 825-7381 or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Station, NY 11746-2102. When writing, specify that the Army scholarship is desired. Applications for Army scholarships can also be obtained by calling (800) 872-7682 or by e-mail to atcpcs@usacc.army.mil. Completed applications should be submitted by November 15 for early consideration and no later than December 1 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 Reserves, or Army National Guard while earning a college degree. The curriculum supplements students’ academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership reaction courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations, which 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 tuition and mandatory fees and provide a tiered stipend ranging from $2,500 to $4,000 per year and a $900 book allowance. Non-scholarship, contracted ROTC cadets also receive the tiered stipend of $2,500 to $4,000 per year. Students in the program also compete for over $35,000 in merit-based scholarships provided annually by various private organizations that support the Army ROTC program. Additionally, students may work part-time as officer trainees in local Army Reserves or National Guard units through the simultaneous membership program (SMP). Contracted students can fly free on military aircraft within the continental U.S. on a space-available basis.

Students may select a branch of the Army in which to be commissioned from 16 specialty fields, including military intelligence, aviation, signal communications, finance, logistics, 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 once 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 $350 and $400 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

11. Foundations of Officership. (2) (Not the same as course 11 prior to Spring Quarter 2004.) Lecture, one hour; laboratory, one hour. Introduction to issues and competencies that are central to commissioned officers’ responsibilities. Framework established to understand officership, leadership, military customs, briefings, and “life skills” such as physical fitness, nutrition, and time management. P/NP or letter grading.
12. Basic Military Leadership. (2) (Not the same as course 12 prior to Spring Quarter 2004.) Lecture, one hour; laboratory, one hour. Introduction to fundamen-
tals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leader-
ship fundamentals central to commissioned officer’s responsibilities established. P/NP or letter grading.

13. Leadership Development. (2) Lecture, one hour; laboratory, one hour. Introduction to military problem solving, methodology students can use in their daily lives. Experiential exercises in goal setting and military writing style. Broad overview of life in Ar-
my. 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 in-
clude map coordinate systems, scale and distance relationships, intersection and resection, photo interpre-
tation, squad and platoon operations, and training and development. Lecture, discussion, and experiential learn-
ing, to assist students in development of their own indi-
vidual leadership style. Additional emphasis on mili-
tary factors and principles of leadership, goal setting, basic communication, and consideration of others. P/NP or letter grading.

15. Individual Leadership Development. (3) Lecture, two hours; laboratory, four hours. Introduction to various individual leadership personality types, in combined lecture, discussion, and experiential learning, to assist students in development of their own indi-
vidual leadership style. Additional emphasis on mili-
tary factors and principles of leadership, goal setting, basic communication, and consideration of others. P/NP or letter grading.

16. Leadership Development and Military Plan-
ning. (3) Lecture, two hours; laboratory, four hours. Discussion of various methods of communication, planning, and decision making, through combined lecture, discussion, and experiential learning, with fo-
cus on written communication and group communica-
tion essential for leadership development. Introduc-
tion to and application of military planning process in developing training operations. Counseling techniques. Foundation of basic leader-
ship and ethical leadership, and survey of Army leadership doc-
trine. Emphasis on improving oral and written commu-
nication abilities and leadership skill development and assessment. P/NP or letter grading.

17. Leadership and Management. (4) Lecture, three hours; laboratory, four hours. Interactive course to develop student proficiency in planning and execut-
ing complex training operations. Counseling tech-
niques and development of skills needed to lead vari-
ous organizations. Exploration of training manage-
ment, leadership skills, and developmental counseling techniques. P/NP or letter grading.

18. Leadership, Ethics, and Military Law. (4) Lec-
ture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organi-
zational culture, leadership, ethics, and leadership knowledge and enhancement of leader-member relations, as-
seessment of organizational culture and ethical cli-
mate, and how to effect change in organizations. Explo-
oration of foundations of military law and law of war. P/NP or letter grading.

19. Supervised Independent Studies. (1 to 3) Tu-
torial, to be arranged. Limited to juniors/seniors. Su-
pervised independent studies and research for under-
graduate students who desire to pursue topics of their own selection.

20. Theory of Warfare. (2) Inquiry into theory, nature, causes, and elements of warfare, with attention also to evolution of weapons and warfare.

Scope and Objectives
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Scholarships
ROTC Scholarships are awarded on a compet-
tive basis to U.S. citizens regardless of par-
ents’ income. Scholarships provide tuition, a book allowance, fees, and a tax-free monetary allowance between $250 and $400 per month during the academic year. Applications for four-
year scholarships may be obtained by calling (310) 825-9075 or by writing to Armed Forces Opportunities, P.O. Box 2865, Huntington Sta-
tion, NY 11746-2102. When writing, specify that the Navy/Marine Corps scholarship is de-
sired. Completed applications should be sub-
mited prior to August 15 for early consider-
ation and no later than December 1 of the year preceding college matriculation. Two-year scholarship applications may be obtained from the UCLA Naval Science Department and are considered when received.

Navy/Marine Corps ROTC Program
The Department of Naval Science provides professional training for students leading to a reserve commission at graduation in the U.S. Navy or Marine Corps. Through the Naval Re-
serve Officers’ Training Corps (NROTC), schol-
arship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month. Non-scholarship students may apply to participate as members of the midshipman battalion under the NROTC College Program and, like NROTC Scholarship students, they also receive a reserve commission at gradua-
tion. Because of the rapid development of

Upper Division Courses
110. U.S. Military History. (3) Lecture; three hours; discussion, one hour. Survey of American military his-
tory from 1860 to the present. Causes of war, strate-
gy, tactics, and technological developments set against economic, political, and diplomatic concerns. Impact of warfare on society.

131. Tactical Planning and Analysis. (4) Lecture, three hours; laboratory, four hours. Introduction to 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 proce-
dures, and military orders process. P/NP or letter grading.
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 December 1 and March 1, respectively, 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 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 enter the two-year program with advanced standing after selection through national competition and completion of a six-week summer training period. Applications for the two-year program are due March 1 of the sophomore year. All College Program students receive uniforms, naval science textbooks and, once selected for advanced standing, monthly subsistence pay in their junior and senior years. College Program students serve on active duty for a minimum of three years following graduation and commissioning.

Marine Corps Option

Highly motivated NROTC students may request designation as Marine Corps option students and may also pursue any UCLA aca- demic degree. The final summer cruise involves intensive Marine training. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.

Naval Science Minor

The Naval Science minor is designed for students who wish to augment the major they are completing in another departmental program. Naval science courses are open to all students with an interest in history, national security, foreign policy, organizational leadership, management, ethics, and the military sciences.

To enter the minor, students must have an overall grade-point average of 2.0 or better. For further information, contact Donna Tenerelli at (310) 825-9075.

Required Lower Division Courses (10 units): Naval Science 1B, 20A, 20B.


All minor courses must be taken for a letter grade, with a grade-point average of 2.5 or better in each. Successful completion of the minor is indicated on the transcript and diploma.

Naval 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 newly 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 interactive processes within framework of organized midshipmen-run military unit, with oversight by active-duty military staff. As integral part of naval science curriculum, provides professional experiences designed to develop leadership potential and orientation for active duty. No grading.

1A. Introduction to Naval Science. (2) Lecture, two hours. Introduction to organization of the Naval Service, various components of the Navy, career opportunities, shipboard damage control, fire fighting, propulsion systems, and some customs and traditions of the Naval Service. P/NP or letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. P/NP or letter grading.

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.

20B. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural strengths, with focus on current abilities of specific nations to use oceans to attain national objectives. P/NP or letter grading.

Upper Division Courses


101B. Navigation II. (4) Requisite: course 101A. Study of rules of the road, shiphandling, and basic concepts of multiple ship formations and maneuvering. In-depth analysis of problems associated with operations on high seas and inland waters applying to civil and U.S. Navy craft.

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) (Formerly numbered 198.) Tutorial. Four hours. Limited to juniors/senior. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required, P/NP or letter grading.

SCANDINAVIAN SECTION

College of Letters and Science

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Timothy R. Tangherlini, Ph.D., Head

Professors

James R. Massengale, Ph.D.
Mary Kay Norseng, Ph.D.
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.html for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper division Scandinavian courses, including 105 or 110 or 115, 141, 142, 143. As an option, three upper division courses in a related field may be taken if approved in advance by the undergraduate adviser. 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.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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 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 Languages major with 90 or more units must complete the following introductory courses prior to

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, 110, 115) 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 Lower Division Courses
1. Elementary Swedish. (4) Discussion, four hours. 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.
11. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
21. Elementary Danish. (4) Discussion, four hours. P/NP or letter grading.
50. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. 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 folks tale through modern novel, poem, play, short story, and film, read in English and critically discussed. P/NP or letter grading.
50W. Introduction to Scandinavian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 50. 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 folks tale through modern novel, poem, play, short story, and film, read in English and critically discussed. Satisfies Writing II requirement. Letter grading.

Upper Division Courses
130. Elementary Finnish. (4) Discussion, three hours. Introduction to standard language of Finland. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.
141. Backgrounds of Scandinavian Literature. (4) Seminar, three hours. Readings and discussion of representative texts selected from literature of medieval, Renaissance, baroque, and Enlightenment periods. P/NP or letter grading.
184. Hans Christian Andersen. (4) Lecture, two
hours; discussion, one hour. Study of works of Hans
Christian Andersen, Danish novelist, dramatist, and
writer of tales. Consideration of his literary
background and of his times. Analysis of his works in
terms of their structure, style, and meaning. 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 advis-
er. May be concurrently scheduled with course C265.
P/NP or letter grading.

CM186. Voices of Women in Scandinavian Litera-
ture. (4) Same as Women's Studies M186. Discuss-
sion, three hours. Required: course 5 or 15 or 25.
Knowledge of a Scandinavian language not required
for nonmajors. Readings and discussion of writings
by Scandinavian women writers analyzed in histori-
cal, theoretical, sociological, critical, and comparative
contexts. May be concurrently scheduled with course
C266. P/NP or letter grading.

187. Scandinavian Film: Bergman and Others.
(4) Seminar, three hours. Designed for students in gener-
al and for those preparing for more advanced studies
in the field. View and discuss the films of Ingmar Bergman and other
Scandinavians. P/NP or letter grading.

197. Scandinavian Film: Bergman and Others.
(4) Seminar, three hours. Designed for students in gener-
al and for those preparing for more advanced studies
in the field. View and discuss the films of Ingmar Bergman and other
Scandinavians. P/NP or letter grading.

C251. Henrik Ibsen on World Stage. (4) Seminar,
three hours. Preparation: advanced knowledge of a
modern Scandinavian language. Readings and dis-
cussion of selected plays by Henrik Ibsen. May be concurrently
scheduled with course C253. P/NP or letter grading.

C145. Getting Married: Strindberg and Battle of
Sexes. (4) Seminar, three hours. August Strindberg's
portraits of marital conflict reflected and shaped liter-
ar representation 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 C252. P/NP or let-
ter grading.

C146. Kierkegaard and Foundations of Existen-
tialism. (4) Seminar, three hours. Readings and dis-
cussion of selected works by Søren Kierkegaard and other existentialist writers. May be concurrently
scheduled with course C253. P/NP or letter grading.

C147. Pan's Prophets: Knut Hamsun and Other In-
terpreters of Nature as Modern Idyll. (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 na-
ture as modern idyll. May be concurrently scheduled
with course C255. P/NP or letter grading.

C178. Scandinavian Folk Narrative. (4) Formerly
numbered C188. Seminar, three hours. Introduction
to fairy tales and legends of Scandinavian tradition as
well as to interpretive methodologies which strive to answer
dwelling question "why do people tell stories that they
tell?" Concurrently scheduled with course C267. Let-
ter grading.

C179. Scandinavian Detective Fiction. (4) Seminar,
three hours. Introduction to background of detective
fiction and its relation to Scandinavia. P/NP or letter
grading.

C180. Literature and Scandinavian Society. (4)
Seminar, three hours. Discussion of selected aspects
of Scandinavian society based on readings of contem-
porary literature as well as historical and/or sociolog-
ical material. May be repeated for credit (as determined
by undergraduate adviser) with topic change. May be concurrently
scheduled with course C263. P/NP or letter
grading.

181. Contemporary Swedish Literature. (4) Semi-
inar, three hours. Reading and analysis of selected
texts by major 20th-century Swedish authors. P/NP or
letter grading.

C182. Theory of Scandinavian Novel. (4) Seminar,
three hours. Analysis of predominant structures of
Scandinavian novel from its 18th-century beginnings
through its rise in the 19th century and its 20th-centu-
ry evolution. Discussion of application of contempo-
rary critical theories to novels. May be concurrently
scheduled with course C284. P/NP or letter grading.

185. Scandinavian Folk Narrative. (4) Seminar,
three hours. Analysis of predominant structures of
Scandinavian novel from its 18th-century beginnings
through its rise in the 19th century and its 20th-centu-
ry evolution. Discussion of application of contempo-
rary critical theories to novels. May be concurrently
scheduled with course C265. P/NP or letter grading.

C255. Studies in Oral Traditional Genres. (4)
Seminar, three hours. Preparation: advanced knowledge of a
modern Scandinavian language. Readings and dis-
cussion of selected works by Knut Hamsun and other
existentialist writers. May be concurrently scheduled
with course C253. P/NP or letter grading.

C265. Voices of Women in Scandinavian Litera-
ture. (4) Discussion, three hours. Preparation: ad-
vanced knowledge of a Scandinavian language.
Introduction to background of detective
fiction and its relation to Scandinavia. May be concurrently
scheduled with course C253. Graduate stu-
dents may meet as a group one additional hour each week
and write research papers of greater length and
depth. S/U or letter grading.

M270. Seminar: Literary Theory. (5) Same as
Comparative Literature M294, East Asian Languages
M251, English M270, French M270, German M270,
Italian M270, and Spanish M270. Seminar, three
hours. Advanced interdisciplinary seminar to explore
philosophical, historical, and critical foundations of lit-
ery theory as well as current issues in literary and
cultural studies. S/U or letter grading.

M271. Study of Oral Tradition: History and Meth-
ods. (4) Same as English M205S. 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 ori-
gins of vernacular literatures. European romantic
(re)discovery of oral tradition, 20th-century heuristic
models of oral composition, and modern-day elec-
tronic media and popular verbal genres, such as jok-
ing and rapping. S/U or letter grading.

M272. Collecting Oral Tradition. (4) Same as
English M205S. Seminar, three hours. Description
and evaluation of various modern approaches to collect-
and documenting oral tradition as text, perfor-
mance, and sociocultural event. Consideration of ap-
proaches ranging from written transcription and textu-
ralization to audio and video presentation. S/U or letter
grading.

M273. Studies in Oral Traditional Genres. (4)
(Same as English M205SC) Seminar, three hours. Ex-
ploration in depth of variety and history of, and schol-
arship on, a particular oral tradition (e.g., bai-
lad, song, epic, proverb, riddle, folktale, legend) or a
set of closely related oral traditional genres. S/U or
letter grading.
SLAVIC LANGUAGES AND LITERATURES
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Lecturers
Johanna Domokos, Ph.D.
Georgiana Galateanu, Ph.D.
Susan C. Kresin, Ph.D.
Anna Kudyma, Ph.D.

Preparation for the Major

Required: Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1), Slavic 90.

Transfer Students

Transfer applicants to the Slavic Languages and Literatures major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Slavic 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: Russian 101A, 101B, 101C, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1); courses 118, 119, 120 (all three may be taken in the sophomore year); one three-course sequence from Czech 102A, 102B, and 102C, or 102D, 102E, and 102F, or Polish 102A, 102B, and 102C, or 102D, 102E, and 102F, or Serbian/Croatian 103A, 103B, and 103C, or 103D, 103E, and 103F (placement with consent of instructor); three courses from Czech 102D, 102E, 102F, Polish 102D, 102E, 102F, Russian 102A, 102B, 102C, 123, 130A, 130B, 130C, 140A through 140D, 150, Ser-

Scope and Objectives

The Slavic Languages and Literatures Department 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 Slavic Languages and Literatures is designed to provide students with a mastery of two Slavic languages and familiarity with their literatures, as well as general background in the cultural, political, and social history of the Slavic peoples.

The graduate program provides advanced training in the Slavic literatures and linguistics leading to the M.A. and Ph.D. degrees. 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) Russian Language and Literature, (2) Slavic Languages and Literatures, and (3) Russian Studies. The equivalent of a major in Slavic 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 Slavic 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.

Russian Language and Literature B.A.

Preparation for the Major

Required: Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency, 90A or 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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: Thirteen courses (52 units), including Russian 100A and 100B, or 101A, 101B, and 101C, and 118, 119, 120, 123, 130A, 140A. Four or five additional courses must be selected from Russian 102A, 102B, 102C, 103A, 103B, 103C, 124C, 124D, 124G, C124N, 124T, 125, 126, M127, 128, 130B, 130C, 140B, 140C, 140D, 150, C170, 191.

Slavic Languages and Literatures B.A.

Preparation for the Major

Required: Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1), Slavic 90.

Transfer Students

Transfer applicants to the Slavic Languages and Literatures major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Slavic 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: Russian 101A, 101B, 101C, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1+); courses 118, 119, 120 (all three may be taken in the sophomore year); one three-course sequence from Czech 102A, 102B, and 102C, or 102D, 102E, and 102F, or Polish 102A, 102B, and 102C, or 102D, 102E, and 102F, or Serbian/Croatian 103A, 103B, and 103C, or 103D, 103E, and 103F (placement with consent of instructor); three courses from Czech 102D, 102E, 102F, Polish 102D, 102E, 102F, Russian 102A, 102B, 102C, 123, 130A, 130B, 130C, 140A through 140D, 150, Ser-
brian/Croatian 103D, 103E, 103F; two courses from Czech 155, Polish 152A, 152B, Serbian/Croatian 154, Slavic 125, 126.

Russian Studies B.A.

Preparation for the Major
Required: Russian 1, 2, 3, 4, 5, 6, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1), 90A.

Transfer Students
Transfer applicants to the Russian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major
Required: Russian 101A, 101B, 101C, or equivalent proficiency as determined through departmental testing (equivalent to ACTFL level 1+), three courses in Russian literature, two courses from History 127A through 127D, two courses from Political Science 128A, 128B, 156A, Russian C170, and five additional courses selected from those listed above, from Russian language, literature, or linguistics courses, or from special courses (approved by the undergraduate adviser) offered by the Departments of Art, Art History, Design I Media Arts, Film, Television, and Digital Media, History, Music, Political Science, Slavic Languages and Literatures, and Theater.

Honors Program
The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis. Juniors and seniors 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 and a 3.5 GPA or better in the major courses, are eligible to apply. Students must have the sponsorship of an approved faculty adviser.

All honors students must enroll in Slavic 198A and 198B in two consecutive terms to conduct independent research and write the honors thesis. The results of the research should be presented as a conference paper at the annual Slavic Undergraduate Research Conference.

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 (13 units):
Russian 6 and two courses from 25, 90A, 90B.

Required Upper Division Courses (23 units):
Russian 101A, 101B, 101C, and two additional upper division Russian language and literature courses.

All minor courses must be taken for a letter grade, with 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 (10 to 15 units):
Russian 3 or 13B or 15B and two courses from 25, 90A, 90B.

Required Upper Division Courses (20 units):
Five Russian language or literature courses, including at least two from Russian 118, 119, 120, 130A, 130B, 130C, 140A through 140D. All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Hungarian

Upper Division Courses
101A-101B. Elementary Hungarian. (4-4-4) Discussion, three to four hours. Course 101A is requisite to 101B, which is requisite to 101C. Introduction to grammar; instruction in speaking, listening, reading, and writing. P/NP or letter grading.


187A. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Preparatory work: prior course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

187B. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.
187C-187M. Advanced Tutorial Instruction in Hungarian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

199. Special Studies in Hungarian. (2 to 4) Tutorial, to be arranged. Independent studies course for students who desire more intensive or specialized investigation of material covered in a regular course and who present such a course as a requisite. P/NP or letter grading.

**Lithuanian**

Upper Division Courses


102A-102B-102C. Advanced Lithuanian. (4-4-4) Lecture, three hours. Requisite: course 101C. Course 102A is requisite to 102B, which is requisite to 102C. Review and reinforcement of grammar introduced in first year of study, expansion of vocabulary, further training in written and oral expression. P/NP or letter grading.

102D-102E-102F. Advanced Lithuanian. (4-4-4) Recitation, three hours. Requisite: course 102C.

152A-152B-152C. Survey of Polish Literature. (4-4-4) Lecture, three hours. Lectures and readings in English. Letter grading.

152A. From the Middle Ages to Neoclassicism. (For majors only.) Lecture, 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. P/NP or letter grading.

152B. Advanced Tutorial Instruction in Romanian. (2 each) Tutorial, one hour; laboratory, one hour. Requisite: course 101F or Romanian placement test. Recommended corequisite: course 187B. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.


187B. Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Requisite or corequisite: course 187A. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

**Course Grade**

201. Romanian as a Romance Language. (4) Lecture, three hours. Survey of structure and development of the Romanian language, with special emphasis on relationship of Romanian to other members of the Romance group.

**Russian**

Lower Division Courses

1. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

3. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

4. Intermediate Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

5. Intermediate Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

6. Intermediate Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

10. Intensive Elementary Russian. (12) Intensive basic course in the Russian language equivalent to courses 1, 2, and 3.

11A-11B-12A-12B-13A-13B. Self-Paced Program in Russian. (2 each) Basic courses in the Russian language; 2 to 4 units per term recommended. Each 2-unit course in sequence requires 30 minutes of laboratory session per week and 30 minutes of discussion session per week, plus individual instruction as required by the student. Students must complete the course and be enrolled in courses 11A-12A, 11B-12B, 13A, and 13B at the same time. Satisfies Writing II requirement.

11A. Accelerated Elementary Russian. (8) 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. Russian Novel in Translation. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Described for majors. Study of major works by the great 19th-century Russian novelists. P/NP or letter grading.

25W. Russian Novel in Translation. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 25. Described for non-majors. Study of major works by the 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 misrepresentation 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. Since end of Soviet Union, cultural and political flux within non-Christian lands neighboring Russia has increased dramatically. Given radical rejection of Russian language in former Soviet Union territories, together with current trends such as stubbornly brutal repudiation by Chechens of all deference to Slavic policy, key distinctions in humanities (i.e., easily mapped boundaries of Slavic and Near Eastern studies) are very unclear. Examination of past construction and present blurring of those boundaries by looking at cultural relationships between regions that have constituted occasionally odd definitions of East and Asia around edges of biggest country in world: Caucasus, Central Asia, and moving ever eastward to Pacific, China, and Japan. P/NP or letter grading.

M40. Language and Gender: Introduction to Gender and Stereotypes in English, Japanese, and Russian. (Same as Communication Studies M40 and Japanese M40.) Lecture, three hours; discussion, one hour. Introduction to language from socio- logical perspective of gender. Use of research and examples in English, Japanese, and Russian to explore nature of male and female “genderetics” and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, language acquisition, P/NP or letter grading.

90A. Introduction to Russian Civilization. (5) (Formerly numbered 99A.) Lecture, three hours; laboratory, one hour. Introduction to Russian culture and society from earliest times to 1917. P/NP or letter grading.

90B. Russian Civilization in the 20th Century. (4) (Formerly numbered 99B.) Lecture, three hours. Not open for credit to students with credit for course 90BW or former course 99B or 99BW. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. P/NP or letter grading.

90BW. Russian Civilization in the 20th Century. (5) (Formerly numbered 99BW.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Not open for credit to students with credit for course 90B or former course 99B or 99BW. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. Weekly discussions focus on varied approaches to writing addressing class topics. Five short papers required. Satisfies Writing II requirement. Letter grading.
Upper Division Courses

100A-100B-100C. Literacy in Russian. (4-4-4) Lecture, three hours. Course 100A is not requisite to 100B, which is not 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) Recitation, five hours. Requisite: course 100A. Advanced conversation and composition, with emphasis on vocabulary development and review of selected grammatical topics in fiction, nonfiction, poetry, film, P/NP or letter grading. 102A. Family in Contemporary Russia. 102B. The Individual and the State. 102C. Growing Up in Russia; 102D. Emphasis on Social Science.

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. Courses may be repeated for credit with topic and/or instructor change. P/NP or letter grading.


107. Russian for Social Scientists. (2) Tutorial, two hours. Preparation: three years of Russian. Reading of texts relevant to social scientists: viewing of Russian TV. May be repeated for credit. P/NP or letter grading.


112. Russian Literature of Middle Ages and Enlightenment. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of 19th-century Russian literature (Pushkin, Gogol, Tolstoy, Dostoevsky, Chekhov) 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. Historical Commentary on Modern Russian. (4) Lecture, three hours. Requisite: course 101C. Historical examination of social and moral anomalies of modern Russian.


124D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. Selection of major early short fiction and philosophical writings followed by in-depth readings of one or two major novels such as Crime and Punishment or The Brothers Karamazov. P/NP or letter grading.


1230A-130B-130C. Russian Poetry. (4-4-4) Lecture, three hours. Preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 130A. Introduction to Analysis of Russian Poetry. Role of biography, critical 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, atheism) to contemporary avant-garde.

131. History of Russian Cinema. (4) Lecture, three hours. Overview of most popular art form in world’s largest country to show how cinema struggled under incipient capitalism in Russia, how moviemaking on other side of world departed from path marked out by Hollywood and London, how films operate as form of nationalism, forms of persuasion, relationship between word and image in those acts of persuasion, how even frightening dogma cannot escape importance of audience desire(s), different forms of social existence as related to both national 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.


C170. Russian Folklore. (3 to 5) (Formerly numbered CM170.) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folkloristic phenomena. Concurrently scheduled with course C240. P/NP or letter grading.

191. Variable Topics in Russian Literature. (4) (Formerly numbered 193.) Seminar, three hours. Requisite: course 6. Reading and discussion of selected authors; culminating seminar paper required. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

Graduate Courses

201A-201B-201C. Russian: Vocabulary, Pronunciation, Style. (4-4-4) Lecture, three hours. Requisites: courses 102C, 106. 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.


203. Practicum in Russian. (2) Requisite: course 201C. Two terms per year required of Ph.D. students. Reading of advanced texts; advanced composition, conversation, stylistics. May be repeated for credit. S/U 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 end of the 17th century.


212A-212B. 19th-Century Russian Literature. (4-4) Lecture, three hours.


212B. Age of Realism. Required for M.A. (literature). Survey devoted to emergence of critical and psychoanalytical realism, beginning with early works of Turgenev, Goncharov, and Dostoevsky, moving to major novels of Tolstoy, Dostoevsky, and Saltykov-Shchedrin, and concluding with works of the presymbolist period, especially the short stories of Chekhov.


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227. Linguistic Approaches to Russian Poetry. (4) Lecture, three hours. Designed for graduate students. Introduction to use of linguistic methods in study of Russian poetic texts. May be repeated for credit.

C240. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folklore phenomena. Concurrently scheduled with course C170. S/U or letter grading.

241. Topics in Russian Phonology. (4) Lecture, three hours. Required: course 220A. Selected topics in Russian phonology. May be repeated for credit with consent of instructor.

242. Topics in Russian Morphology. (4) Lecture, three hours. Required: course 220A. Selected topics in Russian inflection and derivation. May be repeated for credit with consent of instructor.

243. Topika in Historical Russian Grammar. (4) Lecture, three hours. Required: course 204, Slavic 221. Selected topics in Russian historical phonology, morphology, and syntax. May be repeated for credit with consent of instructor.

251. Topics in Literature of Medieval Rus'. (4) Lecture, three hours. Required: course 211A. Detailed discussion of particular writers, periods, or genres. May be repeated for credit with consent of instructor and graduate adviser.

261. Discourse Grammar of Russian. (2 or 4) Lecture, three hours. Analysis of phenomena of Contemporary Standard Russian controlled by discourse/pragmatic factors at all levels of linguistic structure from phonology to intersentential syntax. S/U or letter grading.


265. Topics in Russian Syntax. (4) Lecture, three hours. Required: course 220B. Traditional and generative approaches to Russian syntax. May be repeated for credit with consent of instructor.

270. Russian Poetics. (4) Lecture, three hours. Introduction to technical study of Russian poetics and versification, with attention to metrics, stanza forms, rhyme, and development of various verse types from the 18th into the 20th century.

C277. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (The Gift), American novelist (Speak Memory), and critic. Concurrently scheduled with course C124N. S/U or letter grading.

290. Seminar: Russian Poetry. (4) Seminar, three hours. Recommended preparation: course 270. Detailed study of a single author, period, or work. May be repeated for credit with consent of instructor and graduate adviser.

291A. Seminar: Literature of Medieval Rus'. (4) Seminar, three hours. Required: course 211A. Selected topics in literatures of the 11th through the 17th century. May be repeated for credit with consent of instructor and graduate adviser.

291B. Seminar: 18th-Century Russian Literature. (4) Seminar, three hours. Required: course 211B. Selected authors and works from 18th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

292. Seminar: 19th-Century Russian Literature. (4) Seminar, three hours. Required: courses 212A, 212B, 213. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. May be repeated for credit with consent of instructor and graduate adviser.

293. Seminar: 20th-Century Russian Literature. (4) Seminar, three hours. Required: course 213. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

294. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Required: courses 211B, 212A, 212B, 213. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. May be repeated for credit with consent of instructor and graduate adviser.

295. Seminar: Russian Folklore. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

Serbian/Croatian

Upper Division Courses

103A-103B-103C. Elementary Serbian/Croatian. (5-5-5) Recitation, five hours. Basic courses in Serbian/Croatian. P/N or letter grading.

103D-103E-103F. Advanced Serbian/Croatian. (4-4-4) Recitation, three hours. Required: course 103C. P/N or letter grading.

104. Intensive Elementary Bosnian, Serbian, and Croatian. (12) Lecture, 19 hours. Intensive basic course in Bosnian, Serbian, and Croatian equivalent to courses 103A, 103B, 103C. P/N or letter grading.

154. South Slavic Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/N or letter grading.

187A. Advanced Tutorial Instruction in Serbian/Croatian. (2) Tutorial, one hour; laboratory, one hour. Required: course 103F or Serbian/Croatian placement test. Recommended corequisite: course 187B. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammatical topics. P/N or letter grading.

187B. Advanced Tutorial Instruction in Serbian/Croatian. (2) Tutorial, one hour; laboratory, one hour. Required or corequisite: course 187A. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammatical topics. P/N or letter grading.

187C-187M. Advanced Tutorial Instruction in Serbian/Croatian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammatical topics. P/N or letter grading.

40. Christianities East and West. (5) 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 the three traditions. P/N or letter grading.

88. Sophomore Seminar: Literature and Culture. (4) Seminar, three hours. Variable topics course designed to explore themes and issues pertinent to Slavic literature and culture. Culminating project may be required. Consult Schedule of Classes or department for topics to be offered in specific term. Letter grading.

90. Introduction to Slavic Civilization. (5) Formerly numbered 99. 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

125. Interwar Central European Prose. (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors of the 1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/N or letter grading.

126. Postwar Central European Prose. (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors in translation. Special attention to relation between art and ideology. P/N or letter grading.

175. Baltic and Slavic Folklore and Mythology. (4) Formerly numbered M175.) Lecture, four hours. General course for students interested in folklore and mythology and for those interested in Indo-European mythic antiques. P/N 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. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. P/N or letter grading.

198A-198B. Honors Research in Slavic Languages and Literatures. (4-4) Tutorial, three hours. Course 198A is required to 198B. Limited to junior/senior departmental honors program students. Development and completion of honors thesis under direct supervision of faculty member. Individual contract required. Letter grading.


Graduate Courses

200A. Literary Proseminar. (4) (Formerly numbered 200.) Seminar, three hours. 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.

200B. Proseminar: Slavic Linguistics. (4) Seminar, three hours. Introduction to synchronic and diachronic study of Slavic languages and to research tools and methodologies associated with Slavic linguistics. S/U or letter grading.

201. Introduction to Old Church Slavic. (4) Lecture, three hours. Required for M.A. (linguistics, literature). Introduction to phonology and grammar; readings.

211. Slavic Gender Linguistics. (2 or 4) Lecture, three hours. Examination of linguistic differences between male and female speech and of language used to refer to females and males. Course contributes to understanding of language, literature, sociolinguistics, gender issues, and Slavic culture in general. S/U or letter grading.


M229. Introduction to Slavic Bibliography. (2) (Same as Information Studies M229.) Introduction to Slavic and East European bibliography for the 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 resources, and research methods; survey of online databases; compilation of bibliographies. S/U grading.


281. Seminar: Slavic Linguistics. (4) Seminar, three hours. Selected topics in comparative and historical Slavic linguistics. May be repeated for credit with consent of instructor and graduate advisor.

282. Seminar: Structural Analysis. (4) Seminar, three hours. Selected topics. May be repeated for credit with consent of instructor and graduate advisor.

M299. Research Resources for European Studies. (2) (Same as French M299, German M299, Information Studies M299, Italian M299, and Spanish M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library and databases. 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 the University. 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.

596. 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


152. Ukrainian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of writers, literary trends, and issues in Ukrainian literature from the late 18th century to the present. Special attention to works of such major figures as Kotlyarevsky, Shevchenko, Franko, 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. Recommended corequisite: course 187B. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

187B. Advanced Tutorial Instruction in Ukrainian. (2) Tutorial, one hour; laboratory, one hour. Requisite or corequisite: course 187A. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

187C-187M. Advanced Tutorial Instruction in Ukrainian. (2 each) Tutorial, one hour; laboratory, one hour. Requisite or corequisite: course 187A. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. P/NP or letter grading.

Related Courses

Comparative Literature

200. Methodology of Comparative Literature

English

201A. Criticism and Interpretation from Classical Era to the Renaissance

201B. Aesthetics and Criticism from the Enlightenment to Decadence

201C. Developments and Issues in Modern Critical Thought

Ethnomusicology

91C. Music and Dance of the Balkans

History

127A-127D. History of Russia

200D. Advanced Historiography: Europe

233A-233B. Seminars: Russian/Soviet History

Linguistics

20. Introduction to Linguistics

103. Introduction to General Phonetics

110. Introduction to Historical Linguistics

120A. Phonology I

120B. Syntax I

M150. Introduction to Indo-European Linguistics

Political Science

128A. U.S./Soviet Relations

128B. International Relations of Post-Communist Russia

156A. Government and Politics of Post-Communist States: Russia

156B. Government and Politics of Post-Communist States: Eastern Europe

SOCIAL THOUGHT

Interdepartmental Minor

College of Letters and Science

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Jeffrey Prager, Ph.D., Chair

Faculty Advisory Committee

Rogers Brubaker, Ph.D. (Sociology)

Brian P. Copenhaver, Ph.D. (History, Philosophy)

J. Nicholas Enright, Ph.D. (Geography)

Barbara Herman, Ph.D. (English)

Russell Jacoby, Ph.D., in Residence (History)

David E. Lopez, Ph.D. (Sociology)

Michael Mann, D.Phil. (Sociology)

Jeffrey Prager, Ph.D. (Sociology)

Brian D. Walker, Ph.D. (Political Science)

Matthew Norton Wise, Ph.D. (History)

Scope and Objectives

The Social Thought minor provides an opportunity for students to take a series of courses that focus on modern social and intellectual thought from the 17th through the 20th century. The minor builds on lower division introductory exposure to the history of modern ideas as embodied in a number of key texts by significant thinkers such as Descartes, Hobbes, Locke, Smith, Rousseau, Wollstonecraft, Mill, Marx, Weber, Darwin, Nietzsche, Freud, DuBois, de Beauvoir, and others and promotes more intense and broad exposure to the great ideas and modern thinkers of the contemporary world. It culminates with enrollment in a two-term senior thesis tutorial related to a theme from previous coursework and closely supervised by a faculty mentor. The senior thesis occurs in conjunction with a weekly re-
search colloquium where students meet with faculty members to discuss their senior thesis work or related work in the minor.

The minor is intended to supplement the liberal arts education of undergraduates who, through their major, are interested in finding an area of specialization related to career objectives and who seek broad and systematic training in the major ideas of the modern world.

Undergraduate Study
Social Thought Minor

The Social Thought minor is limited to students who formally apply and are admitted. Interested applicants must submit a copy of their transcript, a personal statement that includes their reasons for applying, and a letter of recommendation from a faculty member to the Undergraduate Counselor's Office, 254E Haines 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 Philosophy 6, Political Science 10, Sociology 10.

Required Upper Division Courses (16 to 20 units): Four courses spanning at least two different departments selected from Economics 107, Geography 134, History 122D, M122E, 142A, 142B, Philosophy 151A, C151B, 153A, 153B, 154, C156, Political Science M111A through 114B, 116, Sociology 101, 102 and, with approval of the chair, 191 seminars in social thought.

Required Research Colloquia and Senior Thesis (12 units): Students must also complete Social Thought 190A and 199A in one term and courses 190B and 199B in the following term. No more than two courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

199A-199B. Directed Research or Senior Thesis in Social Thought I, II. (4-4) Tutorial, to be arranged. Corequisite for course 199A: course 190A; for course 199B: course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Individual contract required. Letter grading.

Scope and Objectives

The primary objectives of the Department of Social Welfare graduate program are to prepare leaders for the profession of social work and to develop the empirical base for all facets of practice. In response to changing demographic trends and the emergence of new social problems, the department provides leadership in the areas of policy, practice, and research and in the development of an innovative curriculum for training students and professionals to meet the service needs of a multicultural clientele.

The educational program is based on the premise that all students need to acquire a common body of knowledge and basic skills, and a common understanding of the philosophy and values of the profession. These then form a sound foundation for the development of more specialized knowledge and skills along the lines of each student's interests and the needs of the field.

Students are encouraged to take advantage of the resources within the University by selecting elective courses in related disciplines. In addition, as a department within the School of Public Affairs, the program affords students instructional opportunities in the other affiliated departments — Public Policy and Urban Planning.

Beyond national opportunities in the profession of social work, there is increasing demand for qualified and experienced social workers to serve in the international field, where many social service programs are conducted under the auspices of the United Nations, the U.S. government, and national sectarian organizations. Graduates of the doctoral program generally secure appointments at major universities or research centers.

The challenge to the department, the profession, and those who join us as students is to prepare to forge the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better health care, better job training, and better economic futures.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Social Welfare offers the Master of Social Welfare (M.S.W.) degree and the Doctor of Philosophy (Ph.D.) in Social Welfare degree. Three concurrent degree programs (Social Welfare M.S.W./Asian American Studies M.A., Social Welfare M.S.W./Law J.D.,...
and Social Welfare M.S.W./Public Policy M.P.P.) are also offered.

### Social Welfare

#### Upper Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) 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 the profession to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Requisite: course 100A. Review of existing policy regarding major social issues in the 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.

101. Social Welfare in Multicultural Society. (4) Social policy viewed from perspective of various cultural groups. Students become aware of their own cultural perspective and learn to recognize similarities and differences in values, perspectives, and beliefs across cultural groups.

102. Social Welfare Organizations and Community Systems. (4) Recommended requisites: courses 100A, 100B. Detailed demonstration of implementation of policy via the functioning of human service organizations. Examination of organizational structures/functions. Exploration of characteristics and organization of the community and forces that influence its development and change.

103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Requisites: courses 100A, 100B, 101. Description and demonstration of basic skills employed in direct social work practice via the casework process. Students practice these skills in written, role-play, small group, and video or audio exercises. P/NP or letter grading.

104A. Filipino American Community and Family. (4) Examination of interaction of Filipino American families and communities within the larger social and political environment to understand importance of social, cultural, and political influences of Filipino American families and communities. P/NP or letter grading.

104B. Japanese American Redress. (4) Examination of process through which Civil Liberties Act of 1988 was created, pursued, and passed. This act was the official apology from the U.S. government to over 110,000 Japanese Americans incarcerated in concentration camps during World War II. P/NP or letter grading.

104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Gerontology M104C and Women's Studies M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of the aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in a multidisciplinary perspective utilizing faculty from a variety of fields to address issues of diversity. Letter grading.

104D. Public Policy and Aging. (4) (Same as Gerontology M104D.) Examination of theoretical models and concepts of the policy process, with application to aging. Analysis of decision-making processes that affect aging policy. Description of history of contemporary aging policy. Examination of current policy issues affecting the elderly. P/NP or letter grading.

104E. Social Aspects of Aging. (4) (Same as Gerontology M104E.) Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around a key aspect of social gerontology. P/NP or letter grading.

104F. Japanese American Community and Family. (4) Examination of interaction of Japanese American families and communities within the larger social and political environment to understand importance of social, cultural, and political influences of Japanese American families and communities. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed by governments to ameliorate these problems have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. 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.

106. Research Seminar and Field Observation: Social Welfare. (4) Seminar, three hours; discussion, one hour; outside study, eight hours. Didactic components and field placements are required for a comprehensive understanding of social work agencies. Students select one field of observation experience (module) from a number of field settings. P/NP or letter grading.

107. Field Practicum: Social Welfare. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 106. In field practicum students are placed in a specific agency where they combine observation of agency functions with participatory observation of agency structure and tasks and roles under instructional supervision of an agency mentor and a UCLA faculty member. P/NP or letter grading.

M108S. Violence against Women. (4) (Formerly numbered M108S.) (Same as Women's Studies M108S.) Lecture, three hours. Requisite: Women’s Studies 10. Factual information and theoretical analysis regarding various forms of violence against women and girls in their homes, workplaces, and communities through critical examination of social structures and social science research. Letter grading.

130A-130B. Community Research and Services Seminars. (4-4) (Formerly numbered 190A-190B.) Seminar, three hours; service learning, four hours; outside study, five hours. Course 130A is requisite to 130B. Limited to juniors/seniors. History and roles of social welfare policy within government, organization, and community. Service learning site experiences, with application of issues related to lecture and seminar readings. Students to be assigned to two-semester tutoring/mentoring site where they apply tutoring techniques as they assist elementary to middle school children living in impoverished areas of Los Angeles County. In Progress (130A) and P/NP or letter (130B) grading.

1301D. Introduction to Study of Aging. (4) (Same as Gerontology M101D and Psychology M140.) Lecture, three hours. Designed for seniors. Perspectives on major features of human aging — biological, social, psychological, and humanistic. Introduction to information on the range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

1302. Health Policy and Services. (2) Seminar, two hours. Limited to juniors/seniors. Contemporary issues in health care financing and delivery and historical perspective on these issues. Role of government in health care 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 health care reform plans 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 care reform. Social work roles in health care policy and practice. P/NP or letter grading.

162. Health Policy and Services. (2) Seminar, two hours. Limited to juniors/seniors. Contemporary issues in health care financing and delivery and historical perspective on these issues. Role of government in health care 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 health care reform plans 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 care reform. Social work roles in health care 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 harm from adolescence to middle adulthood is major concern to parents, communities, and nations. Examination of research related to patterns of drug use and related harm (such as crime and mental health disorder) and effectiveness of interventions to reduce these problems. Through review of science-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective interventions to reduce drug-related harm, using most up-to-date information. P/NP or letter grading.

164. HIV Prevention in the U.S. and in 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 communication. 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.

181. Civil Society and Nonprofit Sector. (4) Lecture, three hours. Limited to juniors/seniors. Examination of civil society, nonprofit organizations, philanthropy, and social capital from historical and empirical perspectives, primarily in U.S. context with consideration of other countries and regions as applicable. Interdisciplinary evaluation of approaches in economics, sociology, and political science, with emphasis on policy. P/NP or letter grading.

191. Variable Topics in Social Welfare. (4) Seminar, three hours; outside study, nine hours. Examination in depth of particular subfield of social welfare (e.g., child welfare, children and youth, nonprofit, health, mental health). Limits of investigation set by individual instructor. May be repeated for credit with topic change. Letter grading.

194. Internship Seminars: Social Welfare. (1) Seminar, one hour; outside study, three hours. Corequisite: course 195. Not open to freshmen. Introduction to topics relevant to psychosocial dynamics of children’s health and community resources for children and families, with opportunity to gain breadth and depth of knowledge in seminar setting. P/NP grading.


### Graduate Courses

201A-201B. Dynamics of Human Behavior. (3-3) Lecture, two hours; discussion, one hour. 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 which contribute to a unified theory of human development. Letter grading.

202A-202B. Dynamics of Human Behavior. (3-3) Requirements: 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 the social worker.
203A-203B-203C. Integrative Seminars. (2-2-2) Integrative courses which bring together theory and practice of social work in a discussion of topical areas relevant to the profession. Includes identification of problem areas and populations-at-risk requiring further examination. S/U or letter grading.

M203D. Supporting Families of Children with Special Needs. (Same as Psychology M254.) An introduction to the nature and role of social work in contemporary society; relationships with other professions; probable future trends in the profession; social work ethics, professional responsibilities, certification licensing; professional responsibility for continued self-criticism and improvement of the profession. S/U grading.

225A. Formulation and Analysis. (4) Discussion, three hours. Designed for Ph.D. students. Examination of principal issues in development, formulation, and adoption of U.S. social welfare policies, with particular focus on income distribution and redistribution. Emphasis on analysis of policy issues and conceptual frameworks for analysis. S/U or letter grading.

225B. Implementation and Evaluation. (4) Discussion, three hours. Designed for Ph.D. students. Examination of issues in implementation and evaluation of social welfare policies, particularly those pertaining to provision, organization, and delivery of social services, including auspices funding, distribution, criteria for effectiveness, and use of quantitative methods in policy analysis. S/U or letter grading.

230A-230B-230C. Theory of Social Welfare Practice with Individuals, Families, and Groups I, II, III. (2-2-2) Lecture, two hours. Corequisite: required social work practicum. Introduction to theory of social work with individuals and small groups and to principles of practice which are derivative of this and related theory. S/U or 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. Corequisite: required social work practicum. Historical and theoretical developments in administration, planning, and community organization; understanding the community as a social system; administration of organizations; role of the practitioner in identification, analysis, and evaluation of needs, existing programs, policies, structures, and strategies of intervention. Letter grading.

240A-240B. Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings I, II, III. (3-3) Lecture, three hours. Corequisite: required social work practicum. Historical and theoretical developments in administration, planning, and community organization; understanding the community as a social system; administration of organizations; role of the practitioner in identification, analysis, and evaluation of needs, existing programs, policies, structures, and strategies of intervention. Letter grading.

241A-241B-241C. Advanced Theory of Social Welfare Practice in Organizations, Communities, and Policy Settings IV, V, VI. (4-4-4) Lecture, three hours; outside study, nine hours. Corequisite: required social work practicum. Examination of 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. S/U or letter grading.

2541L. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Public Policy M228 and Urban Planning M288.) 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.

M241F. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Public Policy M247 and Urban Planning M290.) 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 niches between professional and skill set possessed by agencies and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.

245A-245B. Development of Social Work Practice Theory. (4-4) Discussion, three hours. Designed for Ph.D. students.

245A. Epistemology of Practice. (4) Discussion, three hours. Designed for Ph.D. students. Guiding scientific models of practice theories; process of emergence, development, and change of practice theories; intellectual foundations of practice theories; how professionals learn, apply, accumulate, and modify their practice knowledge; science and practice interplay.

245B. Models of Social Work Practice Research. (4) Discussion, three hours. Designed for Ph.D. students. Research for practice, with major emphasis on methods of intervention research which seek to design, test, evaluate, and disseminate innovative intervention technologies.

258. Critical Problems in Social Welfare. (2) (Same as Ph.D. students. Current problems in the 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.

280. Social Welfare Research. (3) Lecture, three hours; outside study, six hours. Sources, nature, and uses of social work theory and research-based knowledge and of broader social data relevant to social welfare activities. Critical analysis of major methods of developing scientific knowledge. S/U or letter grading.

281A-281B-281C. Advanced Social Welfare Research. (2-2-2) Discussion, two hours. Individual or group research projects requiring intensive examination and analysis of research areas, 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) (Same as Public Policy M228 and Urban Planning M288.) Discussion, three hours. Review of areas of research of concern to social workers, with special attention to design, instrument construction, data collection, data processing, data reduction, analysis, and interpretation. Designs studied include 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 design, identifying sampling methods. Special considerations in aging research, including sampling, questionnaire design, and recruitment issues. Letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussions of readings about range of research from field of health services. Examination of 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.
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285H. Program Evaluation Research. (4) Lecture, three hours. Discussion of differences and similarities between evaluators. Other research, alternative program evaluation methods, roles and limitations of evaluation research in real world, development of proposals for feasible program evaluation research. Letter grading.

285I. Research in Youth Populations. (4) Lecture, three hours. Research methods as applied to problems, issues, and interventions pertaining to youth populations. Instruction and experience in applying experimental and quasi-experimental designs, survey research methods, ethnographic methods, single-subject designs, and observational methods. Operational definition of variables and selection and design of appropriate measures for research with children and adolescents. Letter grading.

286A. Survey of Research Methods. (4) Discussion, four hours. Basic concepts underlying research methods. Context includes theoretical and conceptual approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. S/U or letter grading.

286B. Advanced Research Methods. (4) Discussion, four hours. Advanced concepts underlying research methods. Continuing study of theoretical and conceptual approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. S/U or letter grading.

286C. Research Internship. (4) Discussion, four hours. Supervised study and training through participation in on-going research project or one initiated by students and carried out under faculty supervision, enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U or letter grading.

290A-290B-290C. Seminars: Social Work. (4-4-4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of social policy and services for mentally ill, with emphasis on policy formulation and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.

290L. Poverty, the Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in the U.S. S/U or letter grading.

290M. Health Policy. (4) (Same as Public Policy M215.) Lecture, three hours. Introduction to contemporary issues in health care financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

290N. Public Policy for Children and Youth. (4) (Same as Public Policy M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

290P. Aging Poverty and Families. (4) (Same as Public Policy M211.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and conceptual approaches to aging poverty and policy. Analysis of decision-making processes that affect social policies. Description of historical development of contemporary policy. Exploration of current proposals and issues. 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 government agencies and community organizations. Is problem of housing a normative issue? 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 marketing, that nonprofit managers typically face. 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 the University. May be repeated for credit. S/U grading.

401A-401B-401C. Practicum: Social Work. (3-3-3) Laboratory, 20 hours. Educationally directed practicum conducted in selected health, welfare, and educational facilities. Provides opportunities for students to test their theoretical knowledge and to acquire dispassionate practice foundation. In Progress (401A, 401B) and S/U (401C) grading.

402A-402B-402C. Advanced Practicum: Social Work. (4-4-4) Laboratory, 24 hours. Requisites: courses 401A, 401B, 401C. Practicum in social work, arranged for internment, with their major field of study. In Progress (402A, 402B) and S/U (402C) grading.

490. Professional Communication for Social Welfare (2) Writing workshop on students' papers or progress, with an eye toward scholarly publication. Analysis and group discussion of rhetorical and stylistic principles. May be repeated once. 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.

596A. Special Study and Research in Social Welfare. (2 to 8) Tutorial, to be arranged. Individual programing for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.

596B. Special Study and Research for Ph.D. Candidates. (2 to 12) Tutorial, to be arranged. Limited to Ph.D. students. S/U grading.

597A. Preparation for M.S.W. Comprehensive Examination. (2 to 8) Tutorial, to be arranged. S/U grading.

597B. Preparation for Ph.D. Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to Ph.D. students. S/U grading.


SOCIOL OGY

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David E. Lopez, Ph.D., Chair

Professors

Walter R. Allen, Ph.D.
Francis R. Anderson, B.A., Acting
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 and health agencies, government service, and human resources.

The Sociology Department faculty includes internationally renown 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 excellently trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment. Over the past several years, a growing number of majors have won a variety of honors program scholarships, receiving grants each worth several thousand dollars. The Alpha Kappa Delta Sociological Honorary Society conference is an important annual event, and the Sociological Undergraduate Association (SUA) maintains an active, ongoing program. 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.

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...
Graduate Degrees, available at the Graduate to 19th centuries. Letter grading.

10. Social Thought and Origins of Sociology. (5)
   Exposition and analysis of selected so-
   nes and contemporary findings, defining characteristics and contemporary
   communities, with focus on origins and development of
   sociological investigation. P/NP or letter grading.

20. Introduction to Sociological Research Meth-
   ods. (5) (Formerly numbered 104.) Lecture, three
   hours; discussion, one hour. Introduction to methods
   used in contemporary sociological research, with fo-
   cus on issues of research design, data collection, and
   analysis of data. Fieldwork may be required. Letter
   grading.

24. Conversation and Society. (4) Lecture, three
   hours. Examination of social norms that organize
   conversational interaction in everyday life. Consider-
   ation of relationship between conversation and other
   institutions in society. P/NP or letter grading.

88A-88Z. Lower Division Seminars. (1 each)
   Seminar, one hour. Limited to 15 freshmen/sophomores.
   Variable topics of current sociological interest. Con-
   sult Schedule of Classes or "Department Announce-
   ments" for topics and instructors. P/NP grading.

Upper Division Courses

101. Development of Sociological Theory. (5) Lecture,
   three hours; discussion, one hour. Comparative survey of basic concepts and theories in sociology
   from 1850 to 1920. P/NP or letter grading.

102. Contemporary Sociological Theory. (5) Lecture,
   three hours; discussion, one hour. Requisite: course 101. Critical examination of significant theoretical
   formulations from 1920 to the present. P/NP or letter grading.

106A. Field Research Methods I. (6) Lecture, two
   hours; discussion, two hours; fieldwork, eight to 10
   hours. Research pracicum in which students write
   field notes on their experiences in and observations of
   intensive internship field placement. Readings fo-
   cus on fieldwork roles and relations, observing and
describing, writing field notes, field interviewing, ethi-
cal issues, and preliminary data analysis. Fieldwork
   and extensive field report. Letter grading.

106B. Field Research Methods II. (6) Lecture, two
   hours; discussion, two hours; fieldwork, 10 hours.
   Requisite: course 106A. Collection and analysis of
   both field notes and unstructured interview data from
   student field placements. Use of techniques of qualita-
tive data analysis, including qualitative coding, analyt-
ic meming, and grounded theory methods, to ana-
lyze these materials and to write ethnographic paper.
   Letter grading.

110. Sociohistorical Methods. (4) Lecture, three
   hours; discussion, one hour. Designed for juniors/se-
   niors. General problems of scientific abstraction, gen-
eralization, inference, and verification and particular
   treatments in some detail, including initial development and
   and consequences of population growth and redistribution. Emphasis on correlates of fertility, mortality, and migration.

117. Family Demography. (4) Lecture, three hours;
   discussion, one hour. Examination of demographic
   behaviors, such as marriage, divorce, and childbear-
ing, associated with family and household organiza-
tion. Sociological approach to understanding causes and consequences of trends and differentials in family
formation and dissolution. P/NP or letter grading.

118. Simulating Society: Exploring Artificial
   Communities. (5) (Formerly numbered M198A.)
   (Same as Communication Studies M144A-)
   Seminar, three hours; computer laboratory, one hour. Examination of
   social behavior through computer simulations of be-
   havior in artificial communities. P/NP or letter grading.

119. Primate Societies. (4) (Formerly numbered 191K).
   (Same as Communication Studies M144A.)
   Limited to juniors/se-
   niors. Selected topics on diverse behaviors and cul-
tural forms of primate cousins, with special focus on
   baboons, chimpanzees, and gorillas. Examination of
   primate socioculture, sexual competition, demogra-
   phy and kinship, politics, communication, and interac-
tions within and between groups. Implications for our lives as human primates. P/NP or letter grading.

CM124A-CM124B. Conversational Structures I, II.
   (4-4) (Same as Communication Studies M144A-
   M144B.) Lecture, three hours; discussion, one hour.
   May be concurrently scheduled with courses C244A-
   C244B. P/NP or letter grading. CM124A. Introduction
   to some structures which are employed in organiza-
tion of conversational interaction, such as turn-taking
   organization, organization of repair, and some basic sequence structures with limited expansions.
   CM124B. Requisite: course CM124A. Consideration of
   some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.
CM125. Talk and Social Institutions. (4) (Same as Communication Studies M125.) Lecture, four hours; discussion, one hour. Required for junior/seniors. Practices of communication and social interaction in a number of major institutional sites in contemporary society. Setting varies but may include emergency services, police and courts, medicine, news interviews, and politics. Concurrently scheduled with course C258. P/NP or letter grading.

126. Study of Norms. (4) Properties of norms, of normatively governed conduct, of lay and professional methods of enforcing, producing, using, and validating norms in contrasting settings of socially organized activities; relevance of these properties for problematic studies of analytic sociology. Fieldwork required.

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 junior/senior social scientists. Emphasis will be on sociological theories and explanations of social conditions shaping and producing emotional experiences; effects of individual expression of emotions on social conditions; relations between thought and the emotions; the self and emotions; social construction of emotions.

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.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Analysis of social processes shaping experience, definition, and enactment of self and personal identity. P/NP or letter grading.

132. Social Psychology: Sociological Approach. (4) Survey of contribution of sociologists to theory and research in social psychology, including theories of social control; conformity and deviation; reference groups; and interaction process.


145. Sociology of Deviant Behavior. (4) Examination of leading sociological approaches to study of deviant and general survey of major types of deviant in American society.

C146. Sociology of Interpersonal Conflict. (4) Lecture, three hours; discussion, one hour. Origins, development, and outcomes of interpersonal conflicts and troubles that arise in close relationships, households, workplaces, and public places in contemporary societies. Concurrently scheduled with course C229A. Letter grading.

147A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Requisite: course 1 or Women's Studies 10. Study of social processes involved in production, recognition, labeling, and treatment of "mental illness."


M142. Health Care in Transitional Communities. (4) (Same as Public Health M151.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes of health care and accessibility of health care in transitional and disadvantaged communities. Fieldwork required.


147B. Sociology of Criminal Justice. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Study of social processes involved in production, recognition, labeling, and treatment of "mental illness."

150. Sociology of Aging. (4) (Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, experience, and coping to age in contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and social worlds of the aged; caregiving relations and institutions; professions concerned with the aged and aging.

151. Comparative Immigration. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Survey of immigration of Europeans, Asians, and Hispanics to the U.S. since the mid-19th century. Overview of immigration experience on ethno-racial groups that migrated voluntarily to this country, with emphasis on immediate postmigration settlement. P/NP or letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Comparative acculturation of European immigrants, including their experiences in the U.S. and Abroad. P/NP or letter grading.


M155. Latinos in the U.S. (4) (Same as Chicana and Chicano Studies M155.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Experiences of history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in the larger social structure and on comparisons with other minority groups. Topics include migration, family education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Study of the cultural, historical, and social processes of Asian American immigration to the U.S., with emphasis on the social consequences of immigration. P/NP or letter grading.

157. Social Stratification. (4) Analysis of American social structure in terms of evaluational differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, consequences of stratification, and problems of methodology.

158. Urban Sociology. (4) Lecture, three hours. Description and analysis of urbanization and urbanism in the U.S. and the world.

159. Comparative Studies of Jewish Communities in the U.S. and Abroad. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Study of Jewish communities in the U.S. and Abroad. Topics include the Jewish community in the U.S. and Abroad, with emphasis on Jewish communities in Europe. P/NP or letter grading.

160. Intergroup Conflict and Prejudice. (4) Study of causes and consequences of group conflict, with emphasis on majority/minority relations, prejudice, and discrimination. Special attention to alternative sociological and psychological theories of prejudice, effects of minority status on the individual; and possibilities for attitude and behavior change.

M161. Comparative American Indian Societies. (4) (Same as American Indian Studies M161.) Lecture, three hours; discussion, one hour. Requisite: course 1 or American Indian Studies M10. Study of the cultural, historical, and social processes of native American peoples processing institutions, including police, courts, schools, psychiatry, human service agencies, and medicine. Concurrently scheduled with course C229B. Letter grading.

162. Sociology of Gender. (4) (Same as Women's Studies M162.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Women's Studies 10. Study of social processes involved in production, recognition, labeling, and treatment of "gender." P/NP or letter grading.

M163. Gender and Work. (4) (Same as Women's Studies M163.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Women's Studies 10. Exploration of the relationship between gender to work and its role in the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Women's Studies M164.) Lecture, three hours; discussion, one hour. Requisite: course 1 or Women's Studies 10. Study of social processes involved in production, recognition, labeling, and treatment of "gender." P/NP or letter grading.
M166. Women in Socialist and Post-Socialist States. (4) (Same as Women's Studies M166.) Lecture, three hours, one hour. Exploration of diverse aspects of women's lives in socialist and post-socialist states. Although transition from socialism occurs differently, gender differences are everywhere central to democratization and marketization. Discussion of ways in which state policies affect women. Letter grading.

M167. Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M167 and Women's Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

168. Organizations and Society. (4) Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and research on behavior of organizations in society.

169. Law and Society. (4) Specific topics may include law in preindustrial and industrialized societies, legalization of various forms of psychoactive substances, fraught histories of antiblack and antilatino behavior within government, police, and court institutions; selected studies in media content, and effects of laws and policies on different communities. Letter grading.

170. Medical Sociology. (4) Requisite: course 1. Provides majors in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of social relations, behavior, and institutions; selected studies in interpersonal and organizational relations that are involved in receipt and delivery of health services.

171. Occupations and Professions. (4) Description and analysis of representative occupations and professions, with emphasis on the contemporary U.S. work place.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Description and analysis of entrepreneurship, with special reference to historical origins, ideology, international comparisons, women and ethnic minority participation, legal and illegal forms, public and private auspices.

173. Economy and Society. (4) Sociology of economic life, with emphasis on principal economic institutions of the U.S.

M174. Sociology of the Family. (4) (Same as Women's Studies M174.) Lecture, four hours. Theory and research dealing with the modern family, its structure, and functions, including historical changes, variant family patterns, family institutions, and the influence of contemporary society on the family. P/NP or letter grading.

M175. Sociology of Education. (5) (Same as Education M108.) Lecture, four hours. Study of social processes and interaction patterns in educational organizations: relationship of such organizations to aspects of society, social class, and power; social relations within school, college, and university; formal and informal groups, subcultures in educational systems; roles of teachers, students, and administrators. 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 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 Afro-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.

179. Comparative East Asian Societies. (4) (Formerly numbered 188.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduc- tion to and study of selected topics of sociological interest. P/NP or letter grading.


184. Social Change. (4) Analysis of major institutions in the U.S. in historical and international perspectives, with emphasis on topics such as industrialization, work, the state, politics, community, the family, religion, and American culture. Theories of social change, conflict, and order applied to the case of the U.S.

185. American Society. (4) Lecture, three hours. Limited to juniors/seniors. Analysis of major topics and trends in American society. Focus on social change, conflict, and order applied to the case of the U.S.

186. Latin American Societies. (4) Lecture, three hours. Limited to juniors/seniors. Historical origins, ideology, international comparisons, women and ethnic minority participation, legal and illegal forms, public and private auspices.


191A. Undergraduate Seminar: Self and Identity. (5) (Formerly numbered 197A.) Seminar, three hours. Limited to junior/senior Sociology majors. Examination of cultural, historical, and interactional contexts shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.

191B. Undergraduate Seminar: Sociology of Humor and Laughter. (5) (Formerly numbered 197B.) Seminar, three hours. Limited to junior/senior Sociology majors. Examination of cultural, historical, and interactional contexts shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.

191C. Undergraduate Seminar: Money and Emotions. (5) (Formerly numbered 197C.) Seminar, three hours. Limited to junior/senior Sociology majors. Selected topics. Reading, discussion, and development of culminating project. Letter grading.

191D. Undergraduate Seminar: Sociology of Development. (5) (Formerly numbered 197D.) Seminar, three hours. Limited to juniors/seniors. Selected topics. Reading, discussion, and development of culminating project. Letter grading.

M191DC. CAPPP Washington, DC, Research Seminars. (8) (Formerly numbered 197DC.) (Same as History M191DC and Political Science M191DC.) Seminar, three hours; laboratory, 24 hours. Limited to CAPPP Program students. Seminars for undergraduates in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.); with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191E. Undergraduate Seminar: Population Growth Models. (5) Seminar, three hours. Limited to juniors/seniors. Great extension of social relations across globe has occurred over last 50 years. What are causes and mechanisms of this process, how far has it transformed human societies, and how far will it go in future? Economic, social, and military aspects of globalization, with focus on extent to which global expansion of capitalism, nation-state system, and American imperialism reinforce or undercut each other, producing new lines of division and conflict across world. Reading, discussion, and development of culminating project. Letter grading.


191H. Honors Seminars: Sociology. (4) (Formerly numbered 194H.) Seminar, three hours. In-depth introduction to process of producing scholarly sociological research for students who intend to write undergraduate thesis for departmental honors. Letter grading.

191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contemporary Mexican society and vital transformations it has undergone in recent years. Reading, discussion, and development of culminating project. Letter grading.


191M. Undergraduate Seminar: Social Ecology. (5) Seminar, three hours. Limited to juniors/seniors. Fundamentals of sociological approach to social ecology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintaining personal space, space and territory, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

191N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. History and present condition of cities and suburbs in America, contrasting today's urban/suburban neighborhoods with premodem cities. Examination of process of suburbanization as it began in the early 20th century and still continues. Reading, discussion, and development of culminating project. Letter grading.

191Q. Undergraduate Seminar: Communication in Medical Care. (3) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care context. Use of microsociological methods to examine main facets of American primary care medical visits, including detailed analysis of interactional conduct of those visits and development of microanalytical constructs into quantitative measures. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Letter grading.

191R. Undergraduate Seminar: Cultural Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theoretical approaches and contemporary developments in study of social worlds dedicated to creating and handling cultural institutions such as literature, journalism, film/television, art, architecture, music, dance, and museums. Discussion of issues as contemporary validity of distinction between high and popular/low culture, relationship of mainstream and marginal culture, how culture expresses and reinforces social inequality, organization of communities, and how people express and decipher meaning in cultural objects. Letter grading.

194. Research Group Seminars: Sociology. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. P/NP grading.

M194DC. CAPPW Washington, DC, Research Seminars. (4) (Same as History M194DC and Political Science M194DC.) Seminar, three hours. Limited to CAPPW Program students in Winter Quarter. Seminars for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interview, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195. Community or Corporate Internship in Sociology. (4) Internship, one to three hours. Limited to juniors/seniors. Internship in community agency or business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with instructor and provide weekly reports of their experience. Normally only 4 units of internship are allowed. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPPW Washington, DC, Internships. (4) (Same as History M195DC and Political Science M195DC.) Tutorial, three hours. Limited to CAPPW Program students in Winter Quarter. Seminars for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide reports of their experiences. Individual contract with supervising faculty member required. P/NP grading.


199. Directed Research in Sociology. (2 to 4) (Formerly numbered 197T.) Tutorial, one hour. Preparation: 3.0 grade-point average in major. Requisites: courses 1, M18. Limited to juniors/seniors Sociology majors. Independent intensive study designed for students who want to do research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty member and student. Culuminating paper or project required. May be repeated for maximum of 8 units, with no more than 4 in any one term. Individual contract required; see undergraduate 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 department faculty members. S/U grading.

202A-202B. Theory and Research in Sociology. (4-4) Lecture, two hours; discussion, two hours. Required of first-year graduate sociology students. Examination of interrelations of theory, method, and substance of major theoretical works, with analytical and skills-oriented orientation. In Progress (202A) and S/U or letter (202B) grading.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of selected issues and problems in classical or contemporary sociological theory. S/U or letter grading.

205. Family and Social Change. (4) Lecture, three hours. Examination of sources of change in family and household organization, with major focus on relationships among economic institutions, family structure, and content of family life. Consideration of concepts, theories, and data about kinship. S/U or letter grading.

M206. Understanding Fertility: Theories and Methods. (4) (Same as Community Health Sciences M222.) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population, demography of health, and social demography. Letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, four hours. Requisite: course 210B. Survey of advanced statistical techniques in sociological research. Focus on problems for which classical linear regression model is inappropriate, including categorical data, structural equations, longitudinal data, incompleteness and nonresponse data, and complex samples. S/U or letter grading.

211A-211B. Comparative and Historical Methods. (4-4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading. 211A. Strategies of Research and Conceptualization. The relationship of theory and fact to social sciences, logic of comparative and historical analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological exercises with problems in representative problem areas. 211B. Research Techniques. Requisite: course 211A. Topics include problem of evidence, substantive and quantitative techniques of data analysis, including use of manuscript census, content analysis, collective biography, and secondary analysis.

212A-212B. Survey Data Analysis. (4-4) Lecture, three hours. Requisites: courses 210A, 210B. Course 212A is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper in style of American Sociological Review or similar journal article. Topics include simple tabular analysis, one- and two-way analysis, ordinary least squares regression, robust regression, binomial and multinomial logistic regression, and scale construction. Logic of analysis and problems of statistical inference, including diagnostic procedures for handling complex sample survey designs. In Progress (212A) and letter (212B) grading.

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Designed for graduate and undergraduate students who have had some exposure to statistics and quantitative methods. Introduction to study design, including experimental, longitudinal, cohort, time-series designs, contextual, and other designs. Discussion of suitability of various design classes for specific analytic goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

M213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208 and Community Health Sciences M208.) 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.

M213B. Applied Event History Analysis. (4) (Formerly numbered M208B.) (Same as Statistics M213.) Lecture, three hours. Preparation: exposure to binary response models. Requisites: courses 210A, 210B. Introduction to regression-like analyses in which outcome is "time to event;" Topics include logit models for discrete-time event history models; piecewise exponential hazard models; proportional hazards; non-proportional hazards; parametric survival models; heterogeneity; multilevel survival models. S/U or letter grading.

216A-216B. Survey Research Design. (4-4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 210A. History of survey method; facet meta-theory 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 projects. S/U or 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.


222. Foundations of Ethnomet hodological, Phe- nomenological, and Analytic Sociologies. (4) Le- cture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomet hodological, phenomenological, and analytic sociologies; and related varieties of inquiry. Central themes such as the world of everyday life, problem of rationality, rules/norms and tacit knowledge, problem of social order, structure and role, constitutive practices, and production of ordinary interaction in first part; guest presentations by affiliated faculty in second part.

223. Phenomenological and Interactionist Perspec- tives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbol- ic perspectives by examining a particular body of live or currently unresolved substantive issues. Topics vary; attention paid to development of phenomenological and interactionist thought on topic of concern, with special concern for ambiguities and divergences both within and between approaches. When rele- vant, attention to logical and historical relations of phenomenology and interactionism of pragmatist, exist- entialist, and ordinary language philosophies.

225A-225B. Demographic Perspectives on Rela- tionship of Family and Economic Systems. (4-4) Requisite: courses 210A, 210B. Examination of in- terrelationship of family and economic systems in so- cieties at different levels of economic development, focusing particularly on the U.S. experience. Central to course: (1) analysis of how demographic factors af- fect economic and family systems; (2) how these sys- tems, and changes in them, affect demographic vari- ables; and (3) how this two-way process influences relationship of family and economic systems over time. 225A. Lectures and readings. 225B. Individual research projects involving term paper and classroom reports on topics and sequence.


227. Sociology of Knowledge. (4) Designed for graduate students. Survey of theories and research concerning social determinants of systems of knowl- edge and role of intellectual and artistic elites in Western culture.

228A-228B. Critical Issues in Macrosociology. (4-4) Lecture, two hours; discussion, one hour. De- signed for graduate students. Conceptual introduction to area of macrosociology in which exemplary works are read, studied for substance and methods, and cri- tiqued in seminar and in written papers. Usually team taught by faculty of varying orientations. In Progress (228A) and letter (228B) grading.

C229A. Sociology of Interpersonal Conflict. (4) Lecture, three hours; discussion, two hours. Origins, development, and outcomes of interpersonal conflicts and troubles that arise in close relationships, house- holds, workplaces, and public places in contemporary societies. Concurrently scheduled with course C146. Letter grading.

C229B. People Processing Institutions. (4) Le- cture, three hours; discussion, two hours. Course C229A is not requisite to C229B. Theory and re- search on processes of people processing institutions, including police, courts, schools, psychiatry, human service agencies, and medicine. Concurrently sched- uled with course C146. Letter grade or S/U grading.

230. Nations and Nationalism. (4) Lecture, three hours. Preparation for independent work in the area of nations and nationalism through close reading of key theoretical and empirical works in this or related areas. S/U or letter grading.

231. Race and Ethnicity: International Perspec- tives. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Role of race and eth- nicity in political, economic, and social lives of nations other than the U.S., with emphasis on theoretical and methodological issues in comparative research.

232. Class, Politics, and Society. (4) Lecture, four hours. Nature of class structure and how it affects re- lation of class structure to politics and political power. Issue of salience of class versus other identities such as gender, age, race, and nationalism. Examination of contemporary “globalization” tendencies of capital- ism. Letter grade or S/U grading.

233. Foundations of Political Sociology. (4) Le- cture, three hours. Designed for graduate students. Survey of the field of political sociology, oriented around conceptual, theoretical, and empirical traditions, and contemporary exemplars. Special attention to competing perspectives on power, theory of the state, and relationship of class structure to politics.

235. Theories of Ethnicity. (4) Lecture, one hour; discussion, two hours. Designed for graduate stu- dents. Examination of variety of theoretical approach- es in understanding race and ethnicity in contempo- rary societies, with emphasis on recent debates among class analysis, which postulates a primordialist, primordial, and na- tional choice perspectives.

236A-236B-236C. International Migration. (4-4-4) Lecture, three hours. S/U or letter grading.

236A. (4) (Formerly numbered 236.) Lecture, three hours. Comprehensive overview of key current theo- retical debates in study of international migration, with focus on exploration of possibilities of comparative (historical and cross-national) research program in the field, linking U.S., European, American, and oth- er global experiences of immigration. S/U or letter grading.

236B. (4) Lecture, three hours. Further exploration of key current theoretical debates in study of internation- al migration, including both theoretical debates of the field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in the field. S/U or let- ter grading.

236C. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral present- ations of student projects, circulation of completed or draft student papers. S/U or letter grading.


238. Feminist Theory. (4) (Formerly numbered 238.) (Same as Women’s Studies M238.) Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociol- ogy. Exploration of critiques of second wave femi- nism by working class feminists and/or feminists of color, feminist scholars from other countries, and re- cent “antifeminist” feminists. Discussion of directions for future feminist sociology. Letter grading.

239A-239B. Quantitative Research on Social Stratification and Social Mobility. (4-4) Lecture, three hours. Requisite: courses 210A, 210B. Intro- duction to English language research literature on quantitative social stratification and social mobility in the U.S. and abroad. In Progress (239A) and letter (239B) grading.


241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology; extent of gender diversity in human societies past and present; why gender is ab- sent in classical macrosoiogy; can masculinist par- adigms make space for gender or does a feminist-in- formed sociology necessitate a fresh approach?

M242. Analysis of Data with Qualitative and Limit- ed Dependent Variables. (4) Requisite: course 210A. Seminar, one hour; discussion, two hours. Designed for graduate students. Analysis of data with qualitative and/or limited dependent variables; sample selection bias and qualitative response mod- els; count outcomes; multilevel models; log-linear models, logit models, probit models. S/U or letter grading.

C244A-C244B. Comparative Structural Systems I, II, (4-4) Lecture, three hours; discussion, one hour. May be concurrently scheduled with courses CM124A- CM124B. Graduate students have additional assign- ments and/or meet as a group one additional hour each week. S/U or letter grading. C244A. Introduction to some structures which are employed in organiza- tion of conversational interaction, such as turn-taking organization, organization of silence, and some basic sequence structures with limited expansions. C244B. Requisite: course C244A. Consideration of some more expanded sequence structures, story struc- tures, topical sequences, and sequence organization of single conversations.


246. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate stu- dents. Sociological theories of emotional expression; experiential approaches to emotions; motivational, cognitive, and psychophysical aspects; behavioral, re- pression, social oppression, and the emotions; cre- ativity and expressed affect; thought, sensations, and the emotions; specific emotions; cultural differences in emotional expression; measurement of emotions.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Designed for graduate stu- dents. Seminar on selected topics on culture and so- ciety. Consult Schedule of Classes for topics and in- structors. May be repeated for credit. S/U or letter grading.

M249A. Health Professions. (4) (Same as Commu- nity Health Sciences M274.) Lecture, three hours. Requisite: Community Health Sciences 210. Socio- logical examination of concepts “health” and “illness” and role of various health professionals, especially physicians. Attention to meaning of professionaliza- tion and professionalization of doctors and nurses in a specific health care setting. S/U or letter grading.

M249B. Health and Illness Behavior. (4) (Same as Community Health Sciences M275.) Seminar, three hours. Designed for graduate students. Seminar dis- cussion based on student responses to readings on medicalization, health promotion as moral enterprise and consumerism, and preoccupation with body. S/U or letter grading.

251. Topics in the Problem of Social Order. (4) Lecture, four hours. S/U or letter grading.
M252. Selected Topics in Sociology of Gender. (4) (Formerly numbered 252.) (Same as Women's Studies M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

254. Human Capital, Social Capital, and Cultural Capital. (4) Lecture, three hours. Designed for graduate students. Intellectual history of these concepts, points of difference and similarity among the concepts, current exemplars of research that utilize these concepts, and critical reflection on research traditions.

M255. Cross-Cultural Perspectives on Gender. (4) (Formerly numbered 255.) (Same as Women's Studies M255.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in the U.S. and abroad? Are universal analytical categories or united feminist movements possible or is gender too different cross-culturally? S/U or letter grading.


257. Demography of Marriage Formation and Disintegration. (4) Discussion, three hours. Requisite: course 211. Review of major cross-cultural examination of marriage formation and dissolution, with focus primarily on demographic literature.

C258. Talk and Social Institutions. (4) Lecture, four hours; discussion, one hour. Practices of communication and social interaction in a 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 CM125. S/U or letter grading.

259. Social Structure and Economic Change: Historical and Comparative Perspectives. (4) Lecture, four hours. S/U or letter grading.

260. Economy and Society. Discussion, two hours. (4) Designed for graduate students. Review and critique of major analytical traditions in economy and society.


M262. Selected Problems in Urban Sociology. (4) (Same as Afro-American Studies M262.) Seminar.

M263. 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 factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes.


266. Selected Problems in Analysis of Conversation. (4) Requisite: courses C244A, C244B. Variable topics/format varies. Course consultant for topics and formats to be offered in a 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 problems in interpretation of sociology and psychoanalysis, which may be substantive (group development, socialization, culture, deviance, collective behavior) or methodological; latter focuses on clinical fieldwork and experimental use of psychoanalytic and sociological techniques.

272. Topics in Political Sociology. (4) Lecture, four hours. S/U or letter grading.

M275. Contemporary Issues of the American Indian. (4) (Same as American Indian Studies M200C and Anthropology M269.) Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in the contemporary world, building on historical background presented in American Indian Studies M200A and cultural and experiential experience of American Indians presented in American Indian Studies M200B.

276. Selected Topics in Sociology of East Asia. (4) Designed for graduate students. Selected problems in Japan, China, or 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.

278. Sociology of Latin America. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Selected topics in sociological study of Latin America. Possible topics include social movements, race and ethnicity, stratification, and social development.

281. Selected Problems in Mathematical Sociology. (4) Exploration of some mathematical models of sociological processes. Possible topics include models of small groups, social mobility, kinship relations, organizations, social networks.


285A-285Z. Special Topics in Sociology. (4 each) Seminar, three hours. Designed for graduate students. Seminars on selected current topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

287. Topics in Chinese Society. (4) Seminar, three hours. Preparation: at least two upper division courses on China in any 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) Designed for graduate students. Seminar on selected current topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

289A-289B-289C. Practicum in Conversation Analysis. (4-4-4) Designed for graduate students. Seminar on selected current topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit.

295. Supervised Teaching of Sociology. (2) Seminar, two hours. Preparation: responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

M402. Practices of Evaluation in Health Services: Theory and Methodology. (4) (Same as Health Services M422.) Lecture, four hours. Requisites: Health Services 200A, 200B. Introduction to evaluation of health services programs and policies. Exposure to basic theoretical concepts and specific evaluation methodologies and designs. Letter grading.

495. Supervised Teaching of Sociology. (2) (Formerly numbered 495A.) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with practical problems and issues of teaching introductory sociology. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, departmental chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


through multidisciplinary approaches, to ad-
edress the history and contemporary impor-
tance of South Asia.

Undergraduate Study

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, society, and languages of South Asia. The minor includes the introductory study of one South Asian language, one lower division course on South Asian history, and five upper division courses that focus on some aspect of the history, culture, politics, religions, and artistic heritage of South Asia.

To enter the minor, students must (1) be in good academic standing with a 2.0 grade-point average or better, (2) have completed 45 units and at least one lower division course (other than a language course) in South Asian studies, and (3) consult with the academic counselor in 10375 Bunchel Hall.

Required Lower Division Courses (10 units maximum): History 9A and completion of the first term of either Hindi (South Asian 40C or 40R) or Sanskrit (South Asian 110C) or by demonstrated proficiency as determined by a placement examination. Proficiency in other South Asian languages, such as Gujarati, Bengali, Marathi, Tamil, Telugu, Pashto, or Urdu, may be accepted by petition, pending completion of a placement examination to be administered at UCLA or approval of an alternative and recognized course of language study.

Required Upper Division Courses (20 units minimum): Five courses, with no more than two from any single discipline or department, to be selected from Anthropology 116, Art History 114A, 114D, C115A, C180C, Asian American Studies M172, Ethnomusicology 146, 147, History 174A through 174E, 175A, M175B, 175C, 185B, 185C, Islamsics 110, 130, 151, South Asian 115, 150, 175, 185.

Variable or selected topics courses (e.g., Comparative Literature 191) fulfill minor requirements only when the content focuses substantially on South Asia. Other courses with substantial South Asian content of at least 50 percent (as determined by the course instructor) may be applied only with prior approval of a petition filed with the academic counselor. Up to 12 units taken through a study abroad program may be applied toward the minor, though no more than 8 of the units may be applied toward the 20 units of upper division coursework.

Independent studies courses (197 or 199) may not be applied toward the minor. No more than one upper division course may be applied toward both this minor and a major or minor in another department or program.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Scope and Objectives

South Asia is comprised of Sri Lanka, India, Pakistan, Nepal, Bhutan, Bangladesh, and the Maldives, and accounts for nearly 1.5 billion people. The region is linguistically one of the richest and most complex areas of the world.

Studying South Asia as a region exposes students to the rich historical, cultural, and religious diversity of a major center of civilization. India represents one of the great continuing world civilizations with a history dating back to at least 2000 B.C. South Asia is the birthplace of half of the world’s religions, including Buddhism, and though Indian diasporic populations have taken their religions to far-flung corners of the world, Hinduism, Sikhism, and Jainism remain largely confined to the area of their origin.

India, Pakistan, and Bangladesh together have more Muslims than the Middle East, and South Asian Islam, interacting with the other faiths of the subcontinent, has seen an efflorescence of philosophy, theology, poetry, and art. Hinduism in its myriad forms can only be witnessed in India and Nepal. Socially distinctive in its caste systems, South Asia also has a growing importance as a regional power, a contributor to world literature and film, and a seedbed for Gandhi’s philosophy and social activism. Both Pakistan and India are nuclear powers, and though most of the South Asian countries have among the highest rates of poverty and illiteracy, India has a large skilled labor force. Since the greater number of educated South Asians have a working knowledge of English, they have made their presence felt within the global economy.

The minor in South Asian Studies seeks, through multidisciplinary approaches, to ad-
ions about culture and human diversity. Southeast Asia is taught as a region, with emphasis on the particular languages, cultures, politics, and topographies of individual nations, ethnic groups, subnational regions, and associations. Yet, it is nearly impossible to teach about any part of Southeast Asia without at least occasionally engaging a range of transregional connections that date back to ancient times. Historically, the peoples of Southeast Asia have been engaged with each other as well as with India and China, the Middle East, Europe, and the Americas and with global contexts of economics, politics, migrations, and communications. When approached from the point of view that holds Southeast Asia to be a locus of shifting transactions and human connections (rather than a reified and timeless region of common culture), the study of the region speaks powerfully to critical issues across many disciplines. Thus construed, Southeast Asian studies addresses major contemporary concerns in the humanities, social sciences, arts, business, the professions, government policy, and international affairs.

The Southeast Asian Studies Program offers a Bachelor of Arts degree and an undergraduate minor.

Undergraduate Study

Southeast Asian Studies B.A.

The major is designed for students who are deeply interested in the study of Southeast Asian languages, cultures, and societies. It requires the intermediate-level study of one Southeast Asian language, three lower division core courses on Southeast Asia as a region, and at least 14 upper division courses, including a capstone senior seminar. Majors are expected, whenever possible, to study for at least one term at a university in Southeast Asia.

Admission

To enter the major, students must (1) be in good academic standing (minimum 2.0 grade-point average), (2) have completed 45 units and at least one lower division core course in Southeast Asian studies, and (3) file a petition with the academic counselor in 10375 Bunche Hall. All interested students should meet with the counselor to discuss the program requirements.

Preparation for the Major

Required: History 9E, Southeast Asian Studies 1, 88; completion of six terms of either Vietnamese, Thai, Filipino/Tagalog, or Indonesian language courses (Southeast Asian 50A through 51C, or 60A through 61C, or 70A through 71C, or 80A through 81C) or demonstrated proficiency as determined by a placement examination. Proficiency in other Southeast Asian languages may be accepted by petition, pending completion of a placement examination or approval of an alternative course of language study.

Transfer Students

Transfer applicants to the Southeast Asian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: either one course on Southeast Asia or one year of study of a Southeast Asian language (or demonstrated equivalent ability).

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: At least 14 upper division courses (56 units) must be completed, including 10 courses that must have substantial Southeast Asian content, as follows:

Three humanities and arts courses must be selected from History 114F, Ethnomusicology C159, 161B, 161H, 161M, Southeast Asian 130, 135, 152A, 152B, 152C, 155, 156A, 156B, 162A, 162B, 162C, 170A, 170B, 170C, 182A, 182B, 182C, Theater 102B, World Arts and Cultures 112B. For Ethnomusicology 161B, 161H, and 161M to count as one 4-unit upper division course to be applied toward the major, any two of the courses may be taken once or any one course may be taken twice.


Variable or selected topics courses (e.g., Asian American Studies 191) fulfill major requirements only when the content focuses substantially on Southeast Asia or a subregion of it.

All majors must also successfully complete Complete Southeast Asian Studies 191.

Three elective courses must be selected from the courses listed above and from those offered by the program. Other courses with substantial Southeast Asian content may be applied toward the major pending approval of a petition filed with the academic counselor.

Breadth and Methods Requirement

Four additional upper division courses on topics outside Southeast Asia must be taken to satisfy the breadth and methods requirement. The courses must be selected in consultation with and approved by the academic counselor. The requirement can be fulfilled by one of the following options:

(1) Completing at least 16 units that focus on a single geographical region other than Southeast Asia (e.g., East Asia, South Asia, Europe, Middle East). All four courses must focus on the same country or region. This track provides students with an opportunity to analyze Southeast Asia from a comparative geographic perspective.

(2) Completing at least 16 units with a single topic of study relevant to Southeast Asia (e.g., religion, economic development, gender studies, human rights, diasporic studies, popular culture). All four courses must concentrate on the same topic. This track provides students with an opportunity to view Southeast Asia from a comparative thematic approach.

(3) Completing at least 16 units on subjects outside Southeast Asia from any one department (e.g., Anthropology, Art History, Asian American Studies, Comparative Literature, History, Political Science, Sociology) whose methodology or discipline can be applied to the study of Southeast Asia. One of the courses should be a theoretical or methodological core course in the discipline. This track provides students with solid background in a particular field that can then be applied to the study of Southeast Asia.

At least one half the units required for the major must be in departments that offer undergraduate majors in the College of Letters and Science. All courses for the major must be taken for a letter grade and be successfully completed with a grade of C (2.0) or better. No more than two independent studies courses (197 or 199) may be applied toward the degree.

Study in Southeast Asia

Students are expected, whenever possible, to study in Southeast Asia for at least one term during their junior or senior year. The program considers study in Southeast Asia an important cultural experience and an opportunity to advance language proficiency, as well as a way to expand the range of formal classroom education.

The University of California operates Education Abroad Programs (EAPs) in several Southeast Asian countries. See http://www.international.ucla.edu/eap/ for the current list. Majors may enroll in any of the UC-sponsored EAPs in Southeast Asia or they may petition to attend a university in Southeast Asia by making arrangements directly or by enrolling through another American university’s study abroad program. Majors may be eligible to apply for financial assistance, awarded on a competitive basis, to help support at least one term of study abroad.

Students majoring or minoring in Southeast Asian Studies who attend an EAP are eligible to earn course credit (4 units) toward the upper division requirements by successfully completing Southeast Asian Studies 180 for a letter grade after they return to UCLA. The principal assignment in course 180 is to write a paper based on field experience or research collected while in Southeast Asia or to produce a...
Honors Program

The honors program is designed for majors who wish to carry out a year-long independent research project that culminates in a senior honors thesis. To enter and graduate from the honors program, students must have a 3.5 grade-point average in the major and a 3.0 overall GPA. Students must also obtain agreement from a faculty member to supervise their honors thesis. Application should normally be made during the junior year, after students have completed more than 90 units of coursework. Consult the academic counselor for further details about the application, thesis requirements, and rules regarding the selection of a faculty thesis supervisor.

Students should begin to plan their thesis in the final term of their junior year. Formal research should begin in the first term of the senior year, if not earlier, under the direction of the faculty thesis supervisor. Students also enroll in Southeast Asian Studies 198A, 198B, and 198C during their senior year. Only 8 units of 198 courses may be applied toward the upper division requirements of the major. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty thesis supervisor and the program honors committee.

Southeast Asian Studies Minor

The Southeast Asian Studies minor is designed for students who wish to augment their major with coursework in Southeast Asian studies. The minor includes the introductory study of one Southeast Asian language, two lower division core courses on Southeast Asia as a region, and five upper division courses that may focus on one or more Southeast Asian cultures or societies.

To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average), (2) have completed 45 units and at least one lower division nonlanguage preparatory course in Southeast Asian studies, and (3) file a petition with the academic counselor in 10375 Bunche Hall.

Required Lower Division Courses (13 units): History 9E, Southeast Asian Studies 1, and completion of the third term of either Vietnamese, Thai, Filipino/Tagalog, or Indonesian language courses (Southeast Asian 50C or 60C or 70C or 80C) or demonstrated proficiency as determined by a placement examination. Proficiency in other Southeast Asian languages may be accepted by petition, pending completion of a placement examination or approval of an alternative course of language study.


For Ethnomusicology 161B, 161H, and 161M to count as one 4-unit upper division course to be applied toward the major, any two of the courses may be taken once or any one course may be taken twice.

Variable or selected topics courses (e.g., Asian American Studies 191) fulfill minor requirements only when the content focuses substantially on Southeast Asia or a subregion of it. Other courses with substantial Southeast Asian content may be applied pending approval of a petition filed with the academic counselor.

Independent studies courses (197 or 199) may not be applied toward the minor. No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program. All minor courses must be taken for a letter grade, with 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 Lower Division Courses

1. Introduction to Southeast Asian Studies. (5) Lecture, three hours; discussion, one hour (when scheduled). Introductory survey of diverse and dynamic societies of contemporary Southeast Asia, with strong focus on interdisciplinary themes in humanities and cultural studies. P/NP or letter grading.

2. Sociology 199. Introduction to Interdisciplinary Study of Southeast Asia. (5) Seminar, three hours. Limited to juniors/seniors. Introduction to methods of interdisciplinary and comparative study, providing students with opportunity to develop competence in using those approaches through investigation of critical issues in Southeast Asian studies. Culminating paper or project may be required. Letter grading.

3. Upper Division Courses

180. Research Seminar: Southeast Asian Studies. (4) Formerly numbered 190.) Seminar, three hours. Limited to Southeast Asian Studies majors and minors. Designed for students to analyze their experiences and develop their scholarship after they return from study abroad in Southeast Asia. Culminating paper or project required. Letter grading.

188. Special Courses in Southeast Asian Studies. (4) Lecture, three hours; discussion, one hour. Interdepartmentally sponsored experimental or temporary courses on selected contemporary topics in Southeast Asian studies taught by visiting instructors or affiliated faculty members. May be repeated for credit with topic change. P/NP or letter grading.

191. Senior Seminar: Variable Topics in Southeast Asian Studies. (4) Formerly numbered 196.) Seminar, three hours. Limited to senior majors. Research seminar on selected topics. Examination of literature and/or state of field in Southeast Asian studies. Paper or research paper based on original research. May be repeated once for credit with topic change and consent of chair. Letter grading.


Spanish and Portuguese

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Associate Professors

Elizabeth A. Marchant, Ph.D.

A. John Skirius, Ph.D.

Assistant Professors

Michelle A. Clayton, Ph.D.

Anna H. More, Ph.D.
Spanish and Portuguese

Preparation for the Major

Spanish B.A.

Required: Spanish 25 or 27 or equivalent, and M42 and M44 or equivalent as determined by the undergraduate adviser. The courses 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/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Required: (1) Seven core courses, including Spanish 100A or 100B, 105 or 107 (possible exemption granted by passing departmental writing proficiency examination), 119A or 119B, 120A, 120B, 120C, and 127 and (2) six upper division Spanish elective courses in literature, culture, or linguistics.

Spanish and Linguistics

B.A.

Preparation for the Major

Required: Spanish 25 or 27 or equivalent as determined by the placement test; course M35 or Linguistics 20; course M42 or M44 or equivalent as determined by the undergraduate adviser; and three terms of study in one language other than Spanish and English, which may be taken concurrently with the major. The courses must be passed with an average grade of C or better.

Transfer Students

Transfer applicants to the Spanish and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one introduction to linguistics course, one Spanish civilization course, or one Spanish American civilization course, and one year of a language other than Spanish or English.

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: Portuguese 3, M35, M42 or M44, 46, or equivalent.

Transfer Students

Transfer applicants to the Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

Refer to the UCLA Transfer Admission Guide at http://www.admissions.ucla.edu/prospect/adm_tr.htm for up-to-date information regarding transfer selection for admission.

The Major

Portuguese Language and Literature Concentration

Required: Thirteen upper division courses, including Portuguese 100A, 100B, 105, either 120A and 120B, or 130A and 130B, and eight elective courses in Portuguese, or six electives in Portuguese plus two courses from areas that complement the program approved by the undergraduate adviser in Portuguese.

Portuguese and Linguistics Concentration

Required: Completion of six terms of study in one other foreign language or three terms in each of two other foreign languages, in addi-
tion to the preparation for the major courses. Spanish is recommended.

The concentration consists of 13 upper division courses, including Portuguese 100A, 100B, 105, M118A, M118B, Linguistics 100, 103, 110, 120A, 120B, and three electives, two of which must be in Luso-Brazilian literature.

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, Portuguese/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 must be submitted in advance in writing and must be approved by the department.

Honors Program

The honors program is open to all departmental majors who have completed the required nine upper division core courses with a 3.5 grade-point average. Eligibility is verified by the departmental counselor.

Two honors projects and an honors thesis are required. To graduate with departmental honors, students must first complete an honors project in each of two of their upper division Spanish elective courses. The honors project is a 12- to 15-page term paper on a special topic, selected in consultation with the instructor, to be completed in addition to the normal course requirements. On the basis of the coursework and special interests, students then consult a faculty member in that field and formulate a research project which they pursue under the faculty member’s guidance through Spanish 198. Students research and write an honors thesis (not to be confused with an honors project) of approximately 25 pages on the selected topic. Approval of the honors thesis is the final requirement for departmental honors.

Mexican Studies Minor

The Mexican Studies minor allows students with an interest in Mexico to augment their major programs with courses that expose them to the history, literature, and culture of Mexico. Given Southern California’s proximity to Mexico, the demographics of Los Angeles, and the shared history of Mexico and the Southwest, the minor is a natural complement to many majors.

To enter the minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

Required Lower Division Courses (8 units): Spanish 25 or 27, and one course from History 8A, 8B, 8C, or Spanish M44.


No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program. By petition and after consultation with the undergraduate adviser, one 4-unit petition and after consultation with the undergraduate adviser, one 4-unit petition and after consultation with the undergraduate adviser, one 4-unit petition and after consultation with the undergraduate adviser, one 4-unit petition and after consultation with the undergraduate adviser, one 4-unit project may be applied toward the minor.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Portuguese Minor

To enter the Portuguese minor, students must have an overall grade-point average of 2.0 or better and must complete Portuguese 3 or 102B.

Required Lower Division Course (4 units): Portuguese 46.

Required Upper Division Courses (24 units): Portuguese 105 and five Portuguese courses selected from 100A through 199 (except 102A, 102B). Only one 4-unit Portuguese 197 or 199 course may be selected.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Spanish Minor

To enter the Spanish minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

Required Lower Division Courses (8 units): Spanish 25 or 27, and M42 or M44.

Required Upper Division Courses (24 to 25 units): Six courses in literature, of which four (22 units) must be selected from Spanish 119A through 191B (one of the four must be from either 119A or 119B or from 120A, 120B, or 120C).

No more than two upper division courses may be applied toward both this minor and a major or minor in another department or program. By petition and after consultation with the undergraduate adviser, one 4-unit petition and after consultation with the undergraduate adviser, one 4-unit project may be applied toward the minor.

All minor courses must be taken for a letter grade, with an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Spanish Linguistics Minor

To enter the Spanish Linguistics minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish.

Required Lower Division Courses (8 units): Spanish 25 or 27, and M35.

Required Upper Division Courses (8 units): Spanish 100A, 100B, three courses from 107, 115, M118A, M118B, and one other upper division Spanish course.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu. 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 Doctor of Philosophy (Ph.D.) degree in Hispanic Languages and Literatures.

Portuguese

Lower Division Courses

1. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour.

2. Elementary Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 1.

3. Intermediate Portuguese. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 2.

8A-8B. Portuguese Conversation. (2-2) Discussion, three hours. Enforced requisite: course 3 with a grade of B or better.


M35. Spanish, Portuguese, and Nature of Language. (5) Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

M42. Civilization of Spain and Portugal. (4) (Same as Spanish M42.) Lecture, three hours; discussion, one hour. Required of majors. Lecture conducted in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spain and Portugal, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

M44. Civilization of Spanish America and Brazil. (5) (Same as Spanish M44.) Lecture, three hours; discussion, one hour. Required of majors. Lectures conducted in English; discussion sections conducted in either Spanish or English. Highlights of civilization of Spanish America and Brazil, with emphasis on artistic, economic, social, and historical development as background for upper division courses. P/NP or letter grading.

46. Brazilian Culture and Civilization. (5) Lecture, four hours. Conducted in English. Topical analysis of cultural history of Brazil, with emphasis on physical environment, principal historical, social, and economic development, and artistic manifestations. P/NP or letter grading.

Upper Division Courses


102A-102B. Intensive Portuguese. (4-4) Preparation: foreign language experience (other than Portuguese). Development of speaking and reading skills equivalent to those covered in three terms of the traditional pattern and to meet special needs of advanced undergraduate and graduate students.

103. Language and Popular Culture. (4) Lecture, three hours. Requisite: course 3 or 102B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Letter grading.

105. Advanced Composition and Style. (4) Lecture, three hours. Requisite: course 3 or 102B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. P/NP or letter grading.

M118A-M118B. History of Portuguese and Spanish. (4-4) (Same as Spanish M118A-M118B.) Lecture, three hours. Requisites: courses M35, 100A. Course M118A is requisite to M118B. Major features of development of Portuguese and Spanish languages from their origins in Vulgar Latin to modern times. P/NP or letter grading. M118A. Phonology; M118B. Morphology and Syntax.

120A-120B. Introduction to Portuguese Literature. (4-4) Lecture, three hours. Requisite: course 105. Introduction to principal periods, currents, and authors of Portuguese literature. P/NP or letter grading.


C130-A130B. Brazilian Literature and Identity: Introduction. (4-4) Lecture, three hours. Requisite: course 105. Introduction to principal periods, currents, and authors of Brazilian literature. P/NP or letter grading.

C131. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Requisite: course 105. Study of most important authors to 1830. May be repeated for credit with topic change. Concurrently scheduled with course C231. P/NP or letter grading.

C132. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Requisite: course 105. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C232. P/NP or letter grading.


C135. 20th-Century Brazilian Literature. (4) Lecture, three hours. Requisite: course 105. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C235. P/NP or letter grading.

C141. Brazilian Film and Literature. (4) Lecture, three hours. Conducted in English. Topical analysis of main literary and historical themes of Brazilian culture, through films and literary texts. P/NP or letter grading.

191. Undergraduate Variable Topics Seminars: Portuguese. (4) (Formerly numbered 197.) Seminar, three hours. Requisite: course 105. Research seminar on selected topics in Portuguese. Reading, discussion, and development of culminating project. Consult Schedule of Classes or department course for topic to be offered in specific term. P/NP or letter grading.

197. Individual Studies in Portuguese. (2 to 4) (Formerly numbered 199.) Tutorial, to be arranged. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

199. Directed Research in Portuguese. (2 to 4) Tutorial, to be arranged. Requisite: course 105. Limited to seniors. Supervised individual research under guidance of instructor. Culminating paper required. Eight units of courses 197 and/or 199 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) (Same as Spanish M200.) Lecture, three hours. Research resources and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4-4) (Same as Spanish M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.

202. Synchronic Morphology and Phonology. (4) Lecture, three hours. Study of theoretical synchronic linguistic structures as applied to Portuguese languages. P/NP or letter grading.

204A-204B. Generative Grammar. (4-4) Lecture, three hours. Concurrently scheduled with course C204A. S/U or letter grading. 204A. Introduction to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter.

M205A-M205B. Development of Portuguese and Spanish Languages. (4-4) (Same as Spanish M205A-M205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.


C229. 20th-Century Portuguese Literature. (4) Lecture, three hours. Requisite: course 105. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C129. S/U or letter grading.

C230. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Requisite: course 105. Study of most important authors to 1830. May be repeated for credit with topic change. Concurrently scheduled with course C130. S/U or letter grading.


C235. 20th-Century Brazilian Literature. (4) Lecture, three hours. Requisite: course 105. Study of representative trends and authors. May be repeated for credit with topic change. Concurrently scheduled with course C135. S/U or letter grading.
2G. Reading Course for Graduate Students. (4) Lecture, three hours. Enforced requisite: course 1G. May not be applied toward degree requirements. S/U grading.

3. Elementary Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 2.

3A. Intensive Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year through high school Spanish. Intensive basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only; P/NP or letter grading.

4. Intermediate Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 3.

5. Intermediate Spanish. (4) Discussion, five hours; laboratory, one hour. Enforced requisite: course 4.

6. Intermediate Spanish. (4) Discussion, five hours. Enforced requisite: course 5. Review and analysis of the more sophisticated and complex syntactic structures of Spanish, verb morphology, and lexical discrimination. Students who have completed course 5 with a grade of A– or better may enroll directly in course 25.


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 a grade of B or better may be admitted.

9A-9B. Advanced Conversation. (2-2) Discussion, three hours. Enforced requisite: course 8B.

10. Intensive Elementary Spanish. (12) Lecture, 20 hours. Intensive elementary instruction in speaking, listening, reading, and writing equivalent to courses 1, 2, and 3, with emphasis on Spanish grammar and Hispanic culture. Offered in summer only; P/NP or letter grading.


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.

M42. Civilization of Spain and Portugal. (4) (Same as Portuguese M42.) Lecture, three hours; discussion, one hour. Requisite: course M35. May not be applied for credit. S/U grading.

M44. Civilization of Spanish America and Brazil. (5) (Same as Portuguese M44.) Lecture, three hours; discussion, one hour. Requisite: course M35. May not be applied for credit. S/U grading.

595. Directed Individual Study or Research. (4 to 8) Tutorial, to be arranged. Preparation: official approval to conduct independent study and research or subjects not offered as regular courses. May not be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 8) Tutorial, to be arranged. Preparation: official approval to conduct independent study and research or subjects not offered as regular courses. May not be repeated for credit. S/U grading.

599. Research for Ph.D. Dissertation. (4 to 8) Tutorial, to be arranged. Preparation: official approval to conduct independent study and research or subjects not offered as regular courses. May not be repeated for credit. S/U grading.

60A-60B-60C. Hispanic Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom discussion, papers, and examinations in English.

60A. Spanish Literature; 60B. Spanish-American Literature; 60C. Don Quijote.

61A-61B-61C. Hispanic Literatures in Spanish. (4-4-4) Lecture, three hours. Open for credit to students with credit for corresponding course in 60 series. Classroom discussion and analysis of selected works. Classroom discussion, papers, and examinations in Spanish.

62A-62B-62C. Hispanic Literatures and Film. (4-4-4) Lecture, three hours. Film screenings, two to three hours. Analysis of main aesthetic, cultural, and philosophical questions in the Hispanic world as articulated in literature and film, addressing not only principal currents affecting Hispanic artistic expression but also discussing strategies employed by two distinct modes of representation: 62A. Spain; 62B. Spanish America; 62C. The Chicano Experience.

88A-88Z. Lower Division Seminars. (4 each) Seminar, three hours. Preparation: official approval to conduct independent study and research on topics not offered as regular courses. May be repeated for credit. S/U grading.

97. Variable Topics in Spanish. (2) Lecture, two hours. Variable topics course with lectures, discussions, and papers; consult Schedule of Classes or department counselor for topic to be offered in specific term. 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.


M118A-M118B. History of Portuguese and Spanish. (4-4) (Same as Portuguese M118A-M118B.) Lecture, three hours. Requisite: courses M35, 100A. May not be applied for credit. S/U grading.

M118A. History of Spanish; M118B. Morphology and Syntax.


121A. Topics in Medieval Iberian Literature. (4) Lecture, three hours. Requisite: course 25 or 27. Varying topics on multilingual and multicultural medieval Iberia, including Hispanic-Arabic and Hispanic-Jewish traditions, Ladino, Aljamiado texts, Hispano-Latin, Occitan, Galician-Portuguese, Catalan, and Castilian. Oral versus written traditions, Convivencia, Europe versus Orient, Sephardic romanticism, end of medieval Iberian civilization, and New World. May be repeated for credit with topic change. P/NP or letter grading.

122. Medieval Literature: El Camino de Santiago. (4) Lecture, three hours. Introductory course in medieval Spanish literature following route of imaginary pilgrimage through northern Spain in the year 1300, from French border near Roncesvalles to shrine of St. James in Santiago de Compostela. Reading works of literature (and viewing slides, listening to music, etc.) associated with each stop along the way. Letter grading.

123. Three Masterpieces of Spanish Medieval Literature. (4) Lecture, three hours. Enforced requisite: courses 25 or 27. Recommended preparation: course 120A. Reading and understanding of three masterpieces of medieval Spanish literature: Conde Lucanor by Don Juan Manuel (collection of folk tales and fables from both European and Oriental sources), Libro de buen amor by Juan Ruiz (disastrous love adventures of rural archpriest, in verse), and Celestina by Fernando de Rojas (dark drama of lust, sorcery, and murder set against new urban backdrop of Inquisition and of Spain's nascent empire). P/NP or letter grading.


130. Post-Romanticism, Realism, and Naturalism in Spain. (4) Lecture, three hours. Recommended preparation: course 120B. Development of main trends of Spanish literature from 1850 to 1898.

132. 20th-Century Spanish Prose. (4) Lecture, three hours. Recommended preparation: course 120C. Study of several representative works of Spanish prose literature since 1898.

133. 20th-Century Spanish Poetry and Drama. (4) Lecture, three hours. Recommended preparation: course 120C. Study of several representative works of Spanish poetry and drama since 1898.

137. Literature of Colonial Spanish America. (4) Lecture, three hours. Recommended preparation: course 120A. Study of most important genres and authors from the Conquest to 1810.

139. Romanticism and Realism in Spanish-American Literature. (4) Lecture, three hours. Recommended preparation: course 120B. Study, through representative literary works, of most important currents of thought and literary trends from 1810 to 1880.

140. Modernismo. (4) Lecture, three hours. Recommended preparation: course 120B. Study, through representative literary works, of most important developments in Spanish-American literature.


144A. Mexican Literature. (4) Formerly numbered 144.) Lecture, three hours. Requisite: course 25 or 27. Study of major movements and authors of Mexican literature. P/NP or letter grading.

144B. Mexican Culture. (4) Lecture, three hours. Recommended preparation: course 25 or 27. Study and analysis of Mexican culture and society through variety of cultural expressions such as film, music, literature, and other popular genres. Letter grading.

144C. Special Topics in Mexican Studies. (4) Lecture, three hours. Requisite: course 25 or 27. Variable topics course with readings, discussions, and papers; consult Schedule of Classes or department counselor for topic to be offered in a specific term. P/NP or letter grading.

M145A-M145B. Introduction to Chicano Literature. (4-4) (Same as Chicana and Chicano Studies M145A-M145B.) Lecture, three hours. Requisite: course 25 or 27. Introduction to texts representative of the Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view characteristic of works written by Chicanos during the 20th century. Most required reading is in Spanish. Bilingual and English works are included and discussed. Reading and analysis of a number of important scholarly and critical statements pertaining to characteristics and development of the Chicano literary corpus. Letter grading. M145A. Literature to 1960. M145B. Literature after 1960.

M146. Chicano Narrative. (4) (Same as Chicana and Chicano Studies M146.) Lecture, three hours. Introduction to major narrative genres in Chicana/Chicano literary tradition — Corrida, Semblanza, chronicle, autobiography, novel, romance, and satire. Emphasis on way in which narrative forms are formed by and address specific social/historical problems.

147. Central American Literature. (4) Lecture, four hours. Study of representative novels, short stories, poems, testimonio writings, and essays by contemporary Central American authors and authors of Central American heritage. P/NP or letter grading.

149. Folk Literature of the Hispanic World. (4) (Formerly numbered M149.) Lecture, three hours. Study of history and present dissemination of principal forms of folklore throughout the Hispanic countries. P/NP or letter grading.

151A-151B. Women in Hispanic Literature. (4-4) Discussion, three hours. Recommended preparation: courses 120A, 120B, 120C. Study of works by and about women, with emphasis on portrayal of women, women's roles, and myths of womanhood within the Hispanic socio-ideological context. 151A. Spain; 151B. Spanish America.

161. Film and Literature of the Spanish-Speaking World. (4) (Same as Comparative Literature M161.) Lecture, three hours. Exploration of perceptions of reality offered by different authors from Spain, Latin America, and the Chicano community. P/NP or letter grading.

M164SL. Spanish/English Exchange. (5) (Same as Chicana and Chicano Studies M164SL) Seminar, three hours; fieldwork at Venice High School, four hours. Preparation: two years of college or university Spanish. Students are paired with one or more English as a Second Language (ESL) Venice High School students and converse for two hours in Spanish and two hours in English. Topics for Spanish portion provided in APS manual; topics for English exchange selected by ESL teacher. Encounters form basis for student compositions and oral reports and supply part of raw data for learner's journal. Review of key areas of Spanish grammar to allow UCLA students to improve language skills, increase knowledge of Latino community and new immigrant Latino youth, and help Venice students improve their English. Some discussions concern U.S. culture, importance of higher education, student adaptation to life in the U.S., and stimulation of their interest in higher education. P/NP or letter grading.
M172. Latinos, Linguistics, and Literacy. (5) (Formerly numbered 172.) (Same as Chicana and Chicano Studies.) Seminar, three hours; field project, four to six hours. Recommended requisite: course 100A. In-depth study of various topics related to literacy, including different definitions of literacy, programs for adult preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire's liberation pedagogy), history of writing systems, phoneme as basis for alphabetization, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

191A. Variable Topics in Spanish: Studies in Hispanic Literature and Linguistics. (4) (Formerly numbered 197.) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of culminating paper. Consult Schedule of Classes or department counselor for topic to be offered in specific term. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) (Formerly numbered 191.) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. P/NP or letter grading.

197. Individual Studies in Spanish. (2 to 4) (Formerly numbered 197.) Tutorial, to be arranged. Limited to juniors/senior. Individual intensive study with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

198. Senior Honors Research in Spanish. (4) (Formerly numbered 170.) Tutorial, to be arranged. Preparation: completion of required nine upper division major core courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requisite: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 197 and/or 199 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) (Same as Portuguese M200.) Lecture, three hours. Identification and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4-4) (Same as Portuguese M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.

202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes that map underlying representations into surface representations. Bearing of phonological theory on dialects.

202B. Morphology. (4) Lecture, three hours. Study of derivational and inflectional word formation processes and their interaction with syntactic structure.

204A-204B. Generative Syntax and Semantics. (4-4) Lecture, three hours. Study of syntactic structure of Spanish and relation between underlying representations and logical form within a principles-and-parameters 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 dialect areas of peninsular and American Spanish, with distinguishing features of each: Influence and contribution of cultural and historical features, including indigeneous languages, to their formation.

211. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

212. Medieval Epic and Narrative Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

213. Medieval Prose. (4) Lecture, three hours. Readings of and lectures on Spanish prose from the beginning 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 comedias.

226. Prose of the Golden Age. (4) Lecture, three hours. Readings of and lectures on fictional, didactic, religious, and other essays and essays.


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 1898.

231. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parmassianism, and the Generacion of 1898.

232. Spanish Prose Literature from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

233. Spanish Prose Literature after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

234. Spanish Drama and Poetry from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

235. Spanish Drama and Poetry after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems of the period.

236. The Literature of the Spanish Conquest. (4) Lecture, three hours. Readings of and lectures on chronicles, poems, and indigenous accounts of the Spanish Conquest.


240. Major Currents in Modern Spanish-American Literature. (4) Lecture, three hours. Study of historical development of Portuguese and Spanish literature, particularly naturalismo and modernismo.

241A-241B. Contemporary Spanish-American Short Story. (4-4) Lecture, three hours. Study of important short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Poetry. (4-4) Lecture, three hours. Intensive study of important poets of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Novel. (4-4) Lecture, three hours. Study of important novelists of recent modernismo.


246. Contemporary Spanish-American Drama. (4) Lecture, three hours. Study of major movements and authors of Mexican American literature.

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, (2) narrative, (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 history of Galician-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

256A-256B. Studies in Spanish Linguistics. (4-4) Lecture, two hours. Study of problems related to analysis and description of the contemporary Spanish language. Each course may be repeated once with topic change and consent of appropriate guidance committee.

257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

262A-262B. Studies in Medieval Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

264A-264B. Studies in Golden Age Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

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.

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) (Formerly numbered M286A-M286B.) Lecture, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee. S/U or letter grading.
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. (2-3) 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.


M299. Research Resources for European Studies. (2) (Same as French M299, German M299, Information Studies M299, Italian M299, and Slavic M299.) Lecture, two hours. Essentials of library research strategy and effective searching in key print and online resources for European and Russian studies. Through combination of lecture, online demonstration, and hands-on activities in and outside class, students understand how to efficiently use library databases. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours.


373. Teaching Composition. (2) Designed for graduate students. Seminar on teaching writing in Spanish language courses. Introduction to composition theory, instruction and practice in integrating writing into curricula, setting goals and standards, designing and sequencing course materials, evaluating and commenting on papers. May not be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship in classroom and student teaching. May be repeated for credit. S/U grading.

490. Using Technology in Foreign Language Classroom. (4) Discussion, two hours. Designed for graduate students. Theory and practice of using technology in foreign language classroom. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.


SPEECH

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Senior Lecturers

Marte S. Gregory, M.A.

Thomas E. Miller, M.A.

Paul Von Blum, J.D.

Lecturers

Dee A. Bridgewater, Ph.D.

John Korchian, M.A.

Michael W. Sumian, Ph.D.

Adjunct Professor

Thomas Plate, Ph.D.

Scope and Objectives

There is no major in speech; however, several undergraduate courses are offered for interested students.

Speech

Lower Division Courses

A. Oral Communication for Nonnative Speakers. (No credit) Lecture, four hours. Speech A displaces 4 units on student's Study List but yields no credit toward a degree. Emphasis on public and private speaking skills in American English necessary for social, academic, and professional growth in this country. Provides experiences necessary to remove barriers to communication created by inappropriate oral language usage. Offered in summer only. P/NP grading.

1. Principles of Oral Communication. (Enforced requisite: satisfaction of Entry-Level Writing requirement.) Theory and practice of informal public speaking, including selection of content, organization of ideas, language, and delivery; practice in extemporaneous and manuscript speaking; training in critical analysis through reading and listening to contemporary speeches. P/NP or letter grading.

1A. English Language Program in Effective Speaking. (4) Lecture, eight hours and 20 minutes. Combination of courses A and 1 to help nonnative speakers of English increase fluency and vocabulary while also improving presentation skills. Language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Offered in summer only. P/NP or letter grading.

2. Public Speaking and Discussion. (Enforced requisite: course 1. Continuation of course 1, with special emphasis on group discussions, panels, symposia, debates, and formal public speaking. Critical analysis of speeches in both contemporary and historical settings.

Upper Division Courses


181A-181B. Forensics. (2-2) (Formerly numbered 190A-190B.) Lecture, two hours. Participation in on-campus and intercollegiate forensics activities, including exposure to fundamentals of competitive forensic events. Students practice public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in independent research and analysis. Each course may be repeated once for credit. P/NP or letter grading. 181A. Basic preparation; 181B. Advanced practicum in speech.

182. Analysis and Briefing. (2) (Formerly numbered 191.) Lecture, two hours. Intensive study of selected political or social issues, preparation of bibliography, analysis and evaluation of issues and arguments. May be repeated once for credit. P/NP or letter grading.

197. Individual Studies in Speech. (2 to 4) (Formerly numbered 199.) 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. Individual contract required. P/NP or letter grading.

STATISTICS

College of Letters and Science

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Alan L. Yuille, Ph.D.

Professors Emeriti

Thomas S. Ferguson, Ph.D.

Robert I. Jennrich, 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.

For undergraduate students a broad range of courses covering applications, computation, and theory is offered. In terms of statistical practice, undergraduate students have the opportunity to serve as statistical consultants on real projects from industrial clients. In designing the undergraduate offerings, departmental faculty members have drawn on their work in bioinformatics, sensor networks, environmental studies, finance, and medical research.

The graduate program is 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. As with the undergraduate program, the interest of faculty members in various application areas weaves itself throughout the graduate offerings.

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 Statistics 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 the Teaching of Statistics, Laboratory of Statistical Genomics, and Studio of Bio-Data Refining and Dimension Reduction.

### Undergraduate Study

#### Undergraduate Courses

Students planning to pursue advanced degrees in statistics should enroll in the Statistics 100A, 100B, 100C sequence. The 110A and 110B sequence is less comprehensive than the 100 series. In particular, probability topics do not receive the same level of coverage. Courses 110A and 110B 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 department office in February.

#### Statistics B.S.

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.

To enter the major, students should have successfully completed one lower or upper division Statistics Department course with a letter grade, have an overall grade-point average of 2.0 or better, and declare the Statistics 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, Statistics 35, 88, and one course from 10, 10A, 10H, 11, M12, 13, or 14. All courses must be completed with a grade of C or better.

#### 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](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, 120A, 120B, 130B, 140SL, 141SL, and four upper division elective courses (at least two from statistics and at least one from mathematics) selected from 130A, 130C, 150 through 199, Mathematics 131A, 131B, 151A, 151B, 170B, 171. 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 89, 89HC, 110A, 110B, 189, and 189HC may not be applied toward any of the major requirements. A maximum of 20 upper division units applied toward the major may be applied toward major or minor requirements in another department or program. Students cannot declare both a Statistics major and a Statistics minor.

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.

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.

All major courses must be taken for a letter grade, with 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 who are majors in another discipline.

To enter the minor, students should have successfully completed one lower or upper division Statistics Department course 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 (8 units):** Either (1) Statistics 35 and Mathematics 3B or (2) course 34 or 35, and Mathematics 31B.

**Required Upper Division Courses (28 units):** Statistics 100A and 100B (or 110A and 110B), 120A, 120B, one course from 130A through 130D, and two additional statistics courses. Statistics 199 may be applied as one of the additional two courses. Students who take courses 100A and 100B may not also apply courses 110A and 110B toward minor requirements and vice versa. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major or minor requirements in another department or program.

All minor courses must be taken for a letter grade, with 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://www.gdnet.ucla.edu](http://www.gdnet.ucla.edu). 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.) and Doctor of Philosophy (Ph.D.) degrees in Statistics.

Statistics

Lower Division Courses

10A. Introduction to Statistical Reasoning through Blended Instruction. (4) Lecture, two 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 10A. Open to students with credit for course 10A; 10H, 101, 11, 12, 13, 14, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means. P/NP or letter grading.

10H. Introduction to Statistical Reasoning (Honors). (4) Lecture, three hours; discussion, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 10A. 10H, 101, 12, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means. Introduction to statistical software. Letter grading.

11. Introduction to Statistical Methods for Business and Economics. (5) (Formerly numbered M11.) Lecture, three hours; discussion, one hour; computer laboratory, one hour. Requisite or corequisite: Mathematics 3A or 31A. Not open to students with credit for course 10B. 10C. 10A, 10H, 101, 12, 13, 14, 100A, 100B, 110A. Open to students with credit for course 10A; 10H, 11, 12, 13, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means, introduction to regression and correlation. P/NP or letter grading.

12. Introduction to Statistical Methods for Social Sciences. (5) (Same as Anthropology M80, Geography M40, and Sociology M18.) Lecture, four hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10A, 11, or 13 (or former Statistics M11, M13, Economics M40, or Organismic Biology M22). Elements of statistical analysis, presentation and interpretation of data, descriptive statistics, theory of probability and basic sampling distributions, statistical inference, including principles of estimation and tests of hypotheses, introduction to regression and correlation. P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (5) (Formerly numbered M13.) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10A, 101, 10H, 11, 12, 13, 14, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, Economics M40, or Organismic Biology M22). Descriptive statistics, elementary probability, random variables, binomial and normal distributions. Large and small sample inference concerning means. P/NP or letter grading.

14. Introduction to Statistical Methods in Physical Sciences and Engineering. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: Mathematics 3A. Not open for credit to students with credit for course 10A, 101, 10H, 11, 12, 13, Anthropology M80, Geography M40, or Sociology M18 (or former Statistics M11, Economics M40, or Organismic Biology M22). Introduction to conceptual and technical aspects of statistics, with attention to applications of physical sciences and engineering. Topics include data collection and experimental design, uncertainty quantification in measurement, descriptive statistics, introduction to time series and regression. Laboratory component to learn data analysis and computer techniques of computer statistical analysis, including bootstrap methods and parametric models. P/NP or letter grading.

15. Applied Sampling. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 3A and 3B, or 31A and 31B, and one course from Statistics 10 through 14. Designed for lower division students who plan to major in Statistics. Information on characteristics of populations is needed in various fields, such as politics, health or social services, marketing departments, and many research areas in sciences. Restrictions in time and money often lead to situations where only sample of population can be used to gather information. Statistical methods and sampling design is essential for surveys to yield estimates that have good properties unbiased and precise. Application of sampling techniques requires both understanding of sampling principles and opportunity to apply them. Necessary background knowledge and various hands-on applications provided. P/NP or letter grading.

35. Interactive and Computational Probability. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 31A, Program in Computing 10A, 10B, 10C, 31B. Elements of probability and simulation. Simulation of computer experiments, importance sampling, Markov Chain Monte Carlo, and techniques available in SAS and ways to extend basic SAS computer programs. P/NP or letter grading.

88. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisite: one course from 10A, 101, 10H, 11, 12, 13, 14, 100A, 100B, 110A. Readings intended to introduce students to current consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

Upper Division Courses

100A. Introduction to Probability Theory. (4) Lecture, three hours; discussion, one hour. Recommend preparation: course 35. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A; open to graduate students. Students may receive credit for only two of the following: courses 100A, 110A, Biostatistics 100A. Probability distributions, random variables and vectors, expectation. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A. Survey sampling, estimation, testing, data summary, one- and two-sample problems, P/NP or letter grading.

100C. Regression Analysis. (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, Gaussian/Markov theorem, examination of residuals, principle component regression, stepwise procedures. P/NP or letter grading.

110A-110B. Applied Statistics. (4-4) Lecture, three hours. Course 120A is a prerequisite. Not open for credit to students with credit for course 10A, 10B, 10C, 110A, 110B. Requisites: courses 34 or 35 and Mathematics 31B or 31BH, or Mathematics 32B and 33A or 32BH and 33AH. Not open to students with credit for Mathematical Statistics 120A or 120B.

120A-120B. Introduction to Applied Regression Analysis. (4-4) (Formerly numbered CM120A-CM120B.) Lecture, three hours. Course 120A is enforced prerequisite to 120B. Designed for seniors/juniors. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.

130A. Statistical Analysis with STATA. (4) Lecture, three hours; discussion, one hour. Requisite: one course from 10A, 101, 10H, 11, 12, 13, 14, 100A, or 110A. Overview of STATA statistical software. Graphical analysis and programming and extensions to basic package. P/NP or letter grading.

130B. Statistical Analysis with SAS. (4) Lecture, three hours. Requisite: one course from 10A, 101, 10H, 11, 12, 13, 14, 100A, or 110A. How to manage and analyze quantitative data using STATA statistical software. Graphical analysis and programming and extensions to basic package. P/NP or letter grading.

130C. Statistical Analysis with SPSS. (4) Lecture, three hours. Requisite: one course from 10A, 101, 10H, 11, 12, 13, 14, 100A, or 110A. Overview of SPSS software intended for students in any major who have interest in data analysis. Though original design catered to students in social sciences, current development has considerably wider application, with vast range of functionality from simple to more advanced data manipulation and analysis. Ease of use maintained that is popular with students not accustomed to statistical programming. Ability of program to combine ease of use with varied levels of data exploration and inference has made it popularly used analytical tool. P/NP or letter grading.

130D. Statistical Programming, Computation, and Visualization in C/C++/VTK. (4) Lecture, three hours. Requisite: Program in Computing 10A or 10B or 10C or 20A. Intermediate programming and computation course, with emphasis on statistical and visualization aspects of research in biomedical, optical imaging, and high-dimensional data analysis. P/NP or letter grading.

135. Introduction to Computational Statistics with R. (4) (Formerly numbered 130C.) Lecture, three hours. Introductory examination of programming in R. P/NP or letter grading.
140SL. Practice of Statistical Consulting. (4) Lecture, one hour; discussion, two hours. Enforced requisites: concurrently or one course from 130A through 130D. 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 clients' questions in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, exchange ideas, and make reports. On-site visits as necessary. In Progress grading (credit to be given only on completion of course 141SL).

141SL. Practice of Statistical Consulting. (4) Seminar, one hour; research group, meeting, two hours. 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 reports. On-site visits as necessary. Letter grading.

150. Data Analysis. (4) Lecture, three hours. Requisites: courses 100A and 100B, or 110A and 110B, or 120A and 120B. Concurrently scheduled with course 112, 118, 120A, 113, 114, 100A, or 110A. Simple intuitive introduction to practical application of statistics for experimenting and surveys in business and biological, medical, physical, and social sciences. Use of computer exercises and R programming language. P/NP or letter grading.

151. Experimental Design. (4) Formerly numbered C125.) Lecture, three hours. Requisite: course 100C or 110B or 120A. Basic principles, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, rotatable designs. Concurrently scheduled with course C225. P/NP or letter grading.

152. Resampling Methods. (4) Formerly numbered C126.) Lecture, three hours; discussion, one hour. Requisite: one course from 10, 10A, 10H, 11, 12, 13, 14, 100A, or 110A. Study of methods dealing with nonresponse and missing data, including introduction to terminology, limitations of simple methods, and modern methods for dealing with missing data, such as EM algorithm and multiple imputation. P/NP or letter grading.

153. Statistical Analysis with Missing Data. (4) Lecture, three hours. Requisite: one course from 10, 10A, 10H, 11, 12, 13, 14, 100A, or 110A. Study of methods dealing with nonresponse and missing data, including introduction to terminology, limitations of simple methods, and modern methods for dealing with missing data, such as EM algorithm and multiple imputation. P/NP or letter grading.


155. Introduction to Statistical Analysis of Environmental Data. (4) Lecture, three hours. Requisite: course 100B. Introduction to applied statistical course, with emphasis on applications to environmental data and statistical computing with the language R. Statistical analysis and scientific report from real data needed. Concurrently scheduled with course CM255. P/NP or letter grading.

156. Data Management. (4) Lecture, three hours. Requisite: course 10 or 11 or M12 or 13 or 14. Proper methods by which researchers should create, document, and store statistical data, and use statistical databases. Basics of raw data formats to completion of data archive. Concurrently scheduled with course C235. P/NP or letter grading.

157. Statistical Analysis of Internet and World Wide Web Data. (4) (Formerly numbered 150.) Lecture, three hours. Requisite: course 100A or 110A or Mathematics 32A. Demography and statistical models of browsing behavior of World Wide Web users, models of Internet traffic data, and statistics methods for creating better Web search engines and spam filters. Use of large data sets to illustrate important issues and statistical software and some programming, handling of large data sets, and text mining, with emphasis on acquiring hands-on experience and on becoming active participants in current research debates. Concurrently scheduled with course C258. P/NP or letter grading.

161. Introduction to Pattern Recognition and Machine Learning. (4) Lecture, three hours. Requisites: course 100B, Mathematics 33A. Introduction to fundamental concepts and algorithms for pattern recognition and machine learning that are useful for statistics modeling, image analysis, speech recognition, data mining, and computational biology. Topics include supervised and unsupervised learning, parametric and nonparametric learning, data clustering, dimension reduction, AdaBoosting. May not be applied toward M.S. or Ph.D. requirements. P/NP or letter grading.

170. Introduction to Time-Series Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or 110A. Introduction of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided throughout, and students implement techniques discussed. P/NP or letter grading.

171. Introduction to Spatial Statistics. (4) Formerly numbered M140J.) (Same as Geography M171.) Lecture, three hours; laboratory, one hour. Requisite: one course from 10, 10A, 11, 12, 13, 14, Anthropology M80, Geography M40, or Sociology M18. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

175. Matrix Algebra for Statistics. (4) Lecture, three hours. Requisite: course 10 or 11 or M12 or 13. Introduction to those parts of matrix algebra and matrix computation that are most useful for statistical research. Use of computer exercises and R programming language. P/NP or letter grading.


184. Scientific Writing. (2) Seminar, one hour. Development of oral and written presentations of statistical data. Techniques and objectives of scientific writing and practice with different forms of professional writing. Participation in oral presentations of student work. Concurrently scheduled with course C284. P/NP or letter grading.

CM185. Statistical Methods for Physical Sciences. (4) (Same as Atmospheric and Oceanic Sciences CM185.) Lecture, three hours. Designed for juniors/seniors. Statistical methods for applications in fields of atmospheric sciences, astronomy, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on applications and data, not theory although some understanding of theory is needed. Concurrently scheduled with course CM252. P/NP or letter grading.


195. Community or Corporate Internship in Statistics. (4) Tutorial, 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. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Statistics. (1 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminatory paper required. Individual contract required. P/NP or letter grading.

Graduate Courses


200C. Large Sample Theory, Including Resampling. (4) (Formerly numbered 200B.) Lecture, three hours. Reformed requisite: course 200B. Asymptotic properties of tests and estimates, consistency and efficiency, likelihood ratio tests, chi-squared tests, S/U or letter grading.


201B. Regression Analysis: Model Building, Fitting, and Criticism. (4) (Formerly numbered C217A.) Lecture, three hours. Enforced requisite: course 201A. Asymptotic 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 bootstrap for statistical inference. S/U or letter grading.

201C. Advanced Modeling and Data mining. (4) (Formerly numbered C217B.) Lecture, three hours. Enforced requisite: course 201B. Designed for graduate students. Building on tools of regression analysis (model fitting and criticism), exploration of recent advances in computer-intensive methods. Consideration of ensemble methods, techniques for data mining, and variety of other approaches that have emerged at boundaries between statistics, computer science, and machine learning. S/U or letter grading.

202A. Statistics Programming. (4) (Formerly numbered 210A.) Lecture, four hours. Designed for graduate students. Outline of principles of applied statistics, followed by survey of specific data analyses from physical, life, and social sciences. Methods include regression analysis, hypothesis testing, survival analysis, categorical data analysis, and simple time-series analysis. Illustration of transformations, plotting, model selection and evaluation, and estimation and decision procedures. S/U or letter grading.
202B. Numerical Linear Algebra and Random Numbers. (4) (Formerly numbered 210B.) Lecture, three hours. Enforced requisite: course 202A. Survey of computational methods that are especially useful for statistical analysis. Exploration of computing in C as well as statistical package R. Topics include simulation, smoothing, regression, and principal component analysis. In-depth analysis of particular geometric computing problem with image processing applications, namely construction and inversion of planar tesselation. S/U or letter grading.

202C. Markov Chain Monte Carlo and Optimization. (4) Lecture, three hours. Requisite: course 202B. Description of Markov chain Monte Carlo (MC-MC) sampling techniques, with emphasis on optimization and statistical estimation. Topics include Gibbs samplers, Metropolis/Hastings importance sampling, and simulated annealing. Alternative optimization techniques, including Newton/Raphson, dynamic programming, belief propagation, and variational 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.

M211. Analysis of Data with Qualitative and Limited Dependent Variables. (4) (Same as Sociology M242.) Lecture, three hours. Requisites: courses 100A, 100B, and 100C, or Sociology 210A and 210B. Models for binary, polynolmous, and ordered outcomes; censored and truncated dependent variables; sample selection bias and qualitative response models; count outcomes; multilevel models; log-linear models. S/U or letter grading.

212. Program Evaluation and Policy Analysis. (4) Lecture, three hours. Requisite: course 120B. Primarily focus on methods of program evaluation. Randomized experiments, observational studies, and topics such as matching, stratification, covariance adjustment, and sensitivity analyses. Letter grading.

M213. Applied Event History Analysis. (4) (Same as Sociology M213B.) Lecture, three hours. Preparation: exposure to binary response models. Requisites: Sociology 210A, 210B. Introduction to regression-like analyses in which outcome is “time to event.” Topics include logit models for discrete-time event history models; piecewise exponential hazards models; proportional hazards models for categorical hazards; parametric survival models; heterogeneity; multilevel survival models. S/U or letter grading.

216. High-Dimensional Data Analysis. (4) Lecture, three hours. Requisites: courses 100A, 100B, 100C. Designed to introduce advanced students to advanced statistical methods useful for exploring voluminous data, including principle component analysis, clustering and classification, tree-structured analysis, neural network, hidden Markov models, sliced inverse regression (SIR), and principal Hessian direction (PHD). S/U or letter grading.


M221. Time-Series Analysis. (4) (Formerly numbered 221.) (Same as Earth and Space Sciences M250.) Lecture, three hours. Designed for graduate students. Exploration of methods for analyzing numerical time-series data. Basic topics in temporal and frequency analysis, followed by more recent topics. Examples in various fields including economics, signal processing, and atmospheric sciences. S/U or letter grading.

M222. Spatial Statistics. (4) (Same as Geography M272 and Urban Planning M215.) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including neuroimaging, geography, seismology, demography, and environmental sciences. S/U or letter grading.

C225. Experimental Design. (4) (Formerly numbered 225.) Lecture, three hours. Requisite: course 100C or 110B or 120A. Basic principles, analysis of variance, randomized block designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, robust parameter designs. Concurrently scheduled with course 121S. S/U or letter grading.

C226. Resampling Methods. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Simple intuitive introduction to practical application of statistics for experiments and surveys in business and biological, medical, physical, and social sciences. Resampling methods — bootstrap and permutation test — are table-free and distribution-free, require common sense (not calculus), yet have a broader range of applications than classical parametric statistical procedures. Concurrently scheduled with course C152S. S/U or letter grading.


M231. Pattern Recognition and Machine Learning. (4) (Formerly numbered 231.) (Same as Computer Science M276A.) 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, and machine intelligence. Applications in several dimensions, partial and multiple correlation. Normal distribution theory, Wishart distribution, Hotelling T². Principal components, canonical correlation, discriminant analysis. Introduction to linear structural relations and factor analysis. Letter grading.


232B. Statistical Computing and Inference in Vision and Image Science. (4) 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, importance sampling, and other statistical inference. S/U or letter grading.


234. Statistics and Information Theory. (4) Lecture, three hours. Preparation: introductory probability theory course. While data compression and transmission are fundamental problems in information theory, field provides insights into statistical problems of estimation, prediction, and model selection. Even new concepts of randomness emerge from this line of research. S/U or letter grading.

C235. Data Management. (4) (Formerly numbered 226S.) Lecture, three hours. Requisite: course 10 or 11 or M12 or 13 or 14. Proper methods by which researchers could create, document, maintain, and utilize statistical databases. Basics of raw data formats to completion of data archive. Concurrently scheduled with course C156S. S/U or letter grading.

C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Introduction to statistical inference based on use of Bayes theorem to discover foundation aspects, current applications, and computational issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications include particle alignment and image denoising procedures. May not be applied toward Ph.D. in Statistics. Concurrently scheduled with course C180S. S/U or letter grading.

M237. Data and Media Arts. (4) (Same as Design 1 Media Arts M259S.) Studio, six hours. Through expanding reach of telecommunications 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, 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.


M242. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M208 and Psychol- ogy M257.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and struc- tured-means factory analytic models. Structural equation models, including path and simultaneous equa- tion models, Parameter estimation, hypothesis test- ing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.


M245. History of Statistics. (4) (Same as History M296.) Seminar, three hours. History of statistics ranges over vast and diverse territory. Development of mathematical methods; philosophical, political, and social issues that were linked to their emergence and use. S/U or letter grading.

M250. Statistical Methods for Epidemiology. (4) (Same as Biostatistics M211 and Epidemiology M211.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: Epidemiology 201A, 201B. Concepts and methods tailored to modeling and analysis of epidemiological data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in Epidemiology 201A and 201B and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M251. Statistical Methods for Life Sciences. (4) (Same as Ecology and Evolutionary Biology M216.) Lecture, three hours. Requisite: course 13. Fundamentals of statistics as applied in life sciences, including statistical inferences for continuous and categoric data (estimation, testing of means and proportions, ANOVA) study design, linear regression, and introduction to principle components analysis. Methods to be implemented on computer with SAS. S/U or letter grading.

M252. Statistical Methods for Physical Sciences. (4) (Formerly numbered M252.) (Same as Atmospheric and Oceanic Sciences CM213.) Lecture, three hours. Designed for graduate students. Statistical framework for data analysis in fields of atmospheric sciences, oceanography, geology, and chemistry, depending on class composition. Presentation of popular techniques in all fields, with emphasis on applications and data, not theory, although some understanding of theory is needed. Concurrently scheduled with course CM185. S/U or letter grading.


M255. Introduction to Statistical Analysis of Environmental Data. (4) (Same as Environmental Science and Engineering M255.) Lecture, three hours. Designed for graduate students. Routine intermediate applied statistics course, with emphasis on applications to environmental data and statistical computing with the language R. Statistical analysis and scientific report from real data required. Concurrently scheduled with course C155. S/U or letter grading.

M258. Statistical Analysis of Internet and World Wide Web Data. (4) Lecture, three hours. Requisite: course 100A or 110A or Mathematics 32A. Designed for graduate students. Demography and statistical models of browsing behavior of World Wide Web users, models of Internet traffic data, and statistical methods for creating better Web search engines and spam filters. Use of large data sets to illustrate important issues and statistical solutions. Statistical software, some programming, handling of large data sets, and text mining, with emphasis on acquiring hands-on experience and on becoming active participants in current research debates. Concurrently scheduled with course C158. S/U or letter grading.


285. Seminar: Computing for Statistics. (2 to 4) Seminar, one to three hours. Topics in various statistical areas by means of lectures and informal conferences with staff members. S/U grading.

M290. Seminar on Statistical Problem Solving for Population Biology. (2) (Same as Ecology and Evolutionary Biology M298.) 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.

290. Current Literature in Statistics. (2) Seminar, one hour. Topics in various statistical areas by means of lectures and informal conferences with staff members. S/U grading.

291. Statistics Consulting Seminar. (2) Seminar, three hours. Preparation: at least one UCLA graduate-level statistics course. Exposure to realistic statistical and scientific problems that appear in typical interactions between statisticians and researchers, with lectures centered on case studies presented by faculty members and invited speakers from business and academic fields. Applied regression analysis and design of experiments, together with basic statistical programs. Presentations and written reports required. S/U or letter grading.

292. Graduate Student Statistical Packages Seminar. (1 to 2) Seminar, two hours. Introduction to various statistical packages. How to handle data in different packages (input, output, data management, treatment of missing data), general syntax of different programming languages, and good practice for writing own statistical functions. S/U grading.

293. Graduate Student Research Seminar. (2) Seminar, two hours. Designed for graduate statistics students. Participating seminar in which various aspects of performing research are discussed by variety of faculty members. Exposure to current research topics with statistical implications to help students select possible thesis or dissertation topics. May not be applied toward degree course requirements. 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 the University. May be repeated for credit. S/U grading.

495A. Teaching College Statistics. (Formerly numbered 495.) Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new Ph.D. students to prepare for theoretical issues in teaching of statistics. S/U grading.

495B. Teaching College Statistics. (2) Seminar, two hours. Weekly discussion and intensive training for all first-year teaching assistants that addresses practical and theoretical issues in using technology to teach statistics, including use of statistical software as education tool. S/U grading.

495C. Evaluation of Teaching Assistants. (2) Seminar, two hours. Overview of new trends and directions in teaching of statistics. Observation of teaching assistants twice by instructor to give them chance to observe and analyze their own strengths and weaknesses and think about how they can improve their teaching. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Supervised individual reading and study on project approved by a faculty member. May be repeated for credit. Letter grading.


STUDY OF RELIGION

See Religion, Study of

SURGERY

David Geffen School of Medicine

UCLA

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Chairs

Ronald W. Busuttil, M.D., Ph.D. (William P. Longmire, Jr., Professor of Surgery and Dumont-UCLA Professor of Transplantation Surgery), Executive Chair

Neil A. Martin, M.D., Vice Chair, Clinical Affairs
Bruce E. Stabile, M.D., Vice Chair, Harbor-UCLA
Jesse E. Thompson, Jr., M.D., Vice Chair, Olive View-UCLA

Achilles Demetriou, M.D., Ph.D., Chief of Surgery, Cedars-Sinai
Nand Datta, M.D., Chief of Surgery, King/Drew
Mattias G. Seltzer, M.D., Vice Chair, VA Greater Los Angeles Healthcare System
Scope and Objectives

The Department of Surgery instructs medical students during all four years of medical school. Students are expected to obtain broad knowledge of diseases treated by surgical means and to understand the pathology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the impact of surgical illness on the patient and the patient's family and environment.

Third-year students participate in one 12-week core clerkship in clinical surgery and are assigned to rotations at a combination of UCLA, Harbor-UCLA, West Los Angeles VA, and Olive View-UCLA Medical Centers. Each facility has a special orientation depending on the patient population and the individual staff, in addition to the initial surgery clerkship orientation. During the fourth year students may elect to take additional clinical rotations with increasing responsibilities. Additional in-depth elective courses are offered in collaboration with other departments.

For further details on the Department of Surgery and a listing of the courses offered, see http://www.surgery.medsch.ucla.edu.

Surgery

Upper Division Course

199. Special Studies. (2 to 8) Tutorial, to be arranged. Individual projects carried out under direction of a faculty member. Special studies in surgery, with appropriate objectives, readings, laboratory work, or other assignments designed for proper training of students. P/NP or letter grading.

THEATER
School of Theater, Film, and Television

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William D. Ward, M.F.A., Chair

Professors
Alan M. Armstrong, M.F.A.
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Gilbert Cates, M.A.
Gary A. Gardner, Ph.D.
Hanay Geiogamah, B.F.A.
Michael J. Hackett, Ph.D.
Patricia M. Harter, Ph.D.
Neil P. Jampolis, B.F.A.
Michael S. McLain, Ph.D.
Richard S. Rose, M.F.A.
Mel Shapiro, M.F.A.
Carol J. Sorgenfrei, Ph.D.
José Luis Valenzuela, B.A.
Edit E. Villarreal, M.F.A.
William D. Ward, M.F.A.

Scope and Objectives

UCLA's 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, directing, history and criticism, musical theater, and playwriting, all within the rigorous liberal arts framework of the B.A. degree.

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 arts 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.

Undergraduate Study

Theater B.A.

The Bachelor of Arts degree provides a liberal education and preprofessional training in a comprehensive program that combines the study of the arts, humanities, and sciences with exploration of the principal areas of theater practice — acting, design, directing, the history and criticism of theater and drama, musical theater, and playwriting. The program is designed to ensure that students graduate with a sound humanistic and experiential base for further pursuits in education and in life beyond the University.

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, theater history, criticism, dramatic literature, and performance.

The acting electives include fundamental and advanced courses in all aspects of performance training that prepare students for ca-
The directing electives explore the basic theories of play direction, as well as text analysis and craft fundamentals. Advanced courses emphasize psychological aspects of director-actor communication and development of specific directorial and production styles.

The Raymond Bolger Musical Theater Program electives train selected students in acting, singing, and dance for the musical theater and provide knowledge of musical theater history. Additional courses provide hands-on training with professional artists and a range of performing experiences from workshops to full productions.

The history and criticism of theater and drama electives include the study of fundamental cultural, social, ethical, and political issues in the context of artistic expression enriched by historical perspective. The curriculum promotes an awareness of the theater as a global phenomenon embodying the contributions of diverse cultures and explores the verbal and visual elements of its language as revealed through the dynamics of theater production.

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.

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.

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; for more information, see http://www.tft.ucla.edu/auditiontour. All applicants must also sign up for an audition and/or interview online at the above website. There is a $50 fee for all auditions/interviews. Applicants may submit materials for consideration in one or more of the following areas: acting, design and production, directing, history and criticism, musical theater, and playwriting.

Preparation for the Major

Required: Theater 11, 12, 13, 14A, 14B, 14C, 50 (must be taken for 4 units total).

The Major

Required: A total of 61 upper division units, including Theater 101A, 101B, 101C, 150 (must be taken for 4 units total), and 38 upper division elective units selected from courses 101A through 199 not otherwise specified as requirements.

Through some of these required courses, students are responsible for completing specific production assignments related to production activity of the theater curriculum.

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. 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 Theater offers Master of Arts (M.A.), Master of Fine Arts (M.F.A.), and Doctor of Philosophy (Ph.D.) degrees in Theater.

Theater

Lower Division Courses

1A-1B-1C. Introduction to Dance for Music Theater. (1-1-1) Studio, four hours. Designed for Theater majors. Introduction to basic music theater dance technique. 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 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 world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters, and reading from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of the performer in the theatrical event, 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. (4) Lecture, three hours. Provides a base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful for further study in each of the theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design. (4-4-4) Lecture, three hours; studio, six hours. Exploration of visual interpretation of drama. Study of styles and techniques of design, collaborative role of the designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study. Letter grading.

15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Prerequisite: course 11. Investigation of role of the director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic work and its realization in production. Letter grading.

20. Acting Fundamentals. (4) Studio, 24 hours. Introduction to interpretation of drama through art of the actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to an audience. F/NP or 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. May be repeated for a 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. May be repeated for a maximum of 12 units. Letter grading.

30. Creative Writing for Theater, Film, Video, or Digital Media. (1 to 8) Studio, six hours. Exploration and development of creative writing skills for one or more of various forms of entertainment media, including theater, film, television, and digital media. May be taken for a maximum of 8 units. Letter grading.

50. Theater Production. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including stage management or member of production crew. May be repeated for a 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 a maximum of 8 units. Letter grading.

Upper Division Courses

101A. Making Tradition. (6) 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, Zulu and Chuango, Quem Querents/English medieval festival plays, San-skrit 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. Reconstructing 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 reintegrate classical traditions. Letter grading.

101C. Deconstructing Theater. (5) Lecture, three hours; discussion, one hour. Exploration of deconstructive practices such as fragmentation, abstraction, and absurdism, with focus on theatrical movements, directorial adaptations, cultural translations, and new forms. Letter grading.
102A. Theater of Japan. (4) Lecture, three hours. Exploration of major theater traditions of Japan from emergence of earliest theatrical activity to the present, including investigation of Noh, Bunraku, and Kabuki performance traditions. Letter grading.

102B. Theater of Southeast Asia. (4) Lecture, three hours. Examination of representative theatrical genre from various countries in Southeast Asia to illustrate importance and contribution that theater plays in society. Letter grading.

102C. Cross-Cultural Currents in Theater. (4) Lecture, three hours. Exploration of interculturalism in theater which focuses on broad influences of non-European world in which primary attention is concentrated on examination and analysis of traditional dance-drama and puppet theaters of East Asia, Southeast Asia, South Asia, the Middle East, and Africa. Analogous forms from European theater included for comparative purposes.

M103A. African Theater History: Slavery to Mid-1800s. (4) Same as Afro-American Studies M103A.) Lecture, three hours. Designed for seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to the mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel Stage to Rise of the American Musical. (4) Same as Afro-American Studies M103B.) Lecture, three hours. Designed for juniors/seniors. Exploration of types of non-European world in which primary attention is concentrated on examination and analysis of traditional dance-drama and puppet theaters of East Asia, Southeast Asia, South Asia, the Middle East, and Africa. Analogous forms from European theater included for comparative purposes.

M103C. Origins and Evolution of Chicano Theater. (4) Same as Chicana and Chicano Studies M103C.) 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 the mid-1800s. Letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (4) 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: The Depression to the Present. (4) Same as Afro-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 the Depression to the present. Letter grading.

103F. Native American Theater. (4) Study of American Indian theater as an evolving art form that reflects the cultural, social, and political awareness of problems and ideas fundamental to the American Indian experience.


104A-104B-104C. History of American Theater. (4-4-4) Lecture, three hours. Study of the historiography of influence of different cultures, traditions, and technologies on development of theater as a social institution in America. Letter grading. 104A. Revolutionary War to the Civil War. 104B. Civil War to WWI. 104C. WW II to the Present.

105. Main Currents in Theater. (4) Lecture, three hours. Critical examination of leading theories of theater from 1897 to the present. Study and discussion of modern styles of production.


107. Drama of Diversity. (4) Lecture, three hours. Examination of diversity in American society as manifested in dramatic works and theatrical presentations. Letter grading.

108. Undergraduate Seminar: History and Criticism. (5) Seminar, four hours. Limited to 15 students. Selected topics in history and criticism of theater and performance. Study of how they imagine their form of performance, their audience, and their goals. Concentration on theaters that regarded themselves, in some way, as experimental. Examples primarily from theaters within the U.S. from the 1960s to the present. Although examples from other countries, especially Poland, also considered. Letter grading.

M109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) Same as Honors Collegium M112.) Lecture, four hours. Discussion of history and literature of theater in five parallel collections at Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophies of the age are examined in musical and dramatic performance. Letter grading.

111A. Selected Topics on History of European Theater from Primitive Times to 1640. (4) Lecture, three hours. In-depth study of a selected area of study in theater history from the Greeks to 1640. May be repeated twice for credit.

111B. Selected Topics on History of European Theater from 1640 to 1900. (4) Lecture, three hours. Investigation in depth of a selected area of study in theater history from the Renaissance through 1900. May be repeated twice for credit.

111C. Selected Topics on History of European Theater from 1900 to the Present. (4) Lecture, three hours. Investigation in depth of a selected area of study in theater history from the baroque to the present. May be repeated twice for credit.

112. Interpreting Performance: Examination of Social, Historical, and Cultural Models for Performing Arts. (5) Same as Honors Collegium M114.) 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 have evolved. Attention at approximately five designated performance events required. P/NP or letter grading.

114A-114B-114C. Dance and Singing for Music Theater I, II, and III. (1-1-1) Hours. Required: course 1A. Designed for Theater majors. Sophomore-level course providing foundation for music theater students’ voice training, as well as dance and movement technique. Letter grading.

115A-115B-115C. Acting, Voice, and Movement I, II, and III. (6-6-6) Studio, 14 to 17 hours. Study of beginning acting technique: improvisation, games, and sense memory with examination of action and objective exercise, outline of Stanislavsky system, and development of voice and movement skills. Letter grading.


118A. Creative Dramatics. (4) Lecture/laboratory. Study of principles and procedures of improvisational approach to drama as done with children from nursery school to junior high.

118B. Advanced Creative Dramatics. (2 to 4) Lecture, four hours; laboratory, to be arranged. Practical application of creative drama process. Exploration of interrelationships of the arts to traditional disciplines of learning. May be repeated once for credit.

118C. Interactive Theater. (4) Laboratory. 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 the campus community, as well as issues which divide the campus from the Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to the intellectual development, exercises and games nurture skills and attitudes useful in facilitating discussions between actors and participants. Use of techniques of sensory awareness, movement, pantomime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisite: course 118B. Development of K-12 teaching materials to integrate theater with specific core curricula. Collaboration with classroom teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences are possible curricular areas. Development of evaluation tools to measure effectiveness of incorporating theater materials into curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, detailed implementation of lesson plan, and ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by ArtsBridge student, classroom teacher, and UCLA faculty members. P/NP or letter grading.


119B. Theater for the Child Audience: Performance. (4) Lecture, two hours; laboratory, four hours. Preparation: audition prior to first class meeting. Designed to provide opportunity for students to work together as an ensemble, creating through improvisation a theater presentation for a young audience. Emphasis on testing theories from ensemble work, rehearsal, pretesting, and evaluation of an original production for possible presentation outside the classroom.


121. Acting Workshop. (2) Laboratory, to be arranged. Requisite: course 20. Courses 160, 163A, 163B, and 163C may be taken concurrently. Workshop which provides students with opportunity to rehearse, perform, and criticize scenes. May be repeated once for credit.


124A. Advanced Voice. (2) Studio/laboratory, three to four hours. Requisites: courses 126A, 126B, and 126C. Development of voice techniques for the stage, including work in relaxation, limbering, breathing, articulators, and resonators.

124B. Advanced Speech. (2) Studio/laboratory, three to four hours. Requisite: course 124A. Designed to acquaint students with International Phonetic Alphabet and its uses and to exercise students’ skills in pronunciation, enunciation, and development of diction.

125A. Advanced Movement. (2) Studio/laboratory, three hours. Physical awareness for the actor, concentrating on warm-up and body, relaxation, control, structure, and gymnastics.

125B. Advanced Movement and Combat. (2) Studio/laboratory, three to four hours. Requisite: course 125A. Advanced and contemporary approach to classical and modern movement for the stage actor.


128A-128B-128C. Acting, Voice, and Movement Workshops II. (2-2-2) Studio, four to six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. May be repeated for a 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. May be repeated for a maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) (Same as Film and Television CM129.) Lecture, two hours; screenings, two hours. Limited to graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of inquiry into roles in the collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM229.

130A. Fundamentals of Playwriting I. (4) Lecture, three hours; discussion, one hour. Study and analysis of dramatic structure, characterization, and narrative leading to guided completion and critique of student-written one-act play. Letter grading.

130B. Fundamentals of Playwriting II. (4) Lecture, three hours plus conference. Requisite: course 130A. Study in original material for the theater, its preparation and development. Designed to give further insight into critical and creative aspects of short and full-length plays and guidance in completion of one-act and full-length plays. May be repeated twice for credit.

130C. Writing for American Musical Theater. (4) Lecture/laboratory, three hours. Study of practice and techniques used in writing a libretto for musical theater: opening narrative, exposition, subplots, and comedy. May be repeated once for credit.


133A-C133B-C133C. Script Development Workshops. (4 to 8 each) Lecture, three hours; studio, four to 24 hours. Guided process of script development, with emphasis on interpretation, artistic growth, and professional process. Each course may be taken for a maximum of 8 units. Concurrently scheduled with courses C433A-C433B-C433C. Letter grading.

134A-134B-134C. Dance and Singing for Music Theater II. (1-1-1) Studio, five hours. Requisites: courses 1A, 11AB, 11BC, 11BC. Designed for Theater majors. Junior-level course providing intermediate-level instruction for music theater students’ voice training, as well as dance and movement technique. Letter grading.


136. Advanced Acting for the Stage. (4) Lecture/laboratory. Requisite: course 123. Study and practice of art of acting through a 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 the Stage. (4-4-4) Studio, six hours. Requisite: course 123. Technique of characterization and performance in advanced and complex acting styles. May be repeated once for credit.

138. Special Problems in Performance Techniques. (4) Lecture/laboratory. Study of complex problems in voice, movement, and acting. May be repeated twice for credit.

139. Play Reading and Analysis. (4) Lecture, three hours. Investigation of dramatic texts, with focus on play structure, plot, character, dialog, ideas, and various other elements essential to effective theatrical interpretation and realization. Letter grading.

141A. Lighting Techniques for the Stage. (4) Lecture, three hours. Intensive study of theater lighting, with emphasis on relationship of lighting instruments and control equipment to lighting design. Letter grading.

141A4A-C141B-C141C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C444A-C444B-C444C. Letter grading.

141A4A. Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and production of dialogue, music, and sound tracks for theater sound design. May be repeated once for credit. Letter grading.

141B4A. Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. May be repeated once for credit. Letter grading.

141C4A. Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement in the 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.

145. Costume Design for the Theater. (4) Lecture/laboratory. 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.

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. Lecture, three hours. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. May be repeated once for credit. Letter grading.

146B. Lecture, three hours. Prototype development and production of no to five completely defined and developed designs. 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, which may entail creation of collaborative proposals containing storyline, 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. Rendering. (4) Development of visual communication skills through rendering. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

147B. Rendering. (4) Introductory course in basic skills necessary for drawing and rendering for scenic, costume, and lighting design for theater, film, and television. May be repeated once for credit. 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.

149. Introduction to Design. (4) 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, theory, lighting 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. Requisite: course 50. Laboratory experience in various aspects of theater production, including performance in a project or production, stage management, member of a crew, or assignment as designer or assistant on a production. May be repeated for a maximum of 8 units. Letter grading.

151A-151B. Scenic Design. (4-4) Lecture/studio. Requisites: courses 14A, 14B, 14C. Introduction to principles of study and practice of the design of scenery for theater, film, and television. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of the design. Letter grading.


154. 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.

154A. 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.


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. Rendering and Design. (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, fabrics, and other materials. Letter grading.

C155C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

C155D. Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of the model for representation of scenic designs from initial working proto-types to finished color models. Use of wide variety of materials and techniques for execution of the 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 theoretical 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 design and elevations. May be repeated once for credit. Letter grading.

C155H. Selected Topics in Graphic Representation of Design. (2) Studio, four hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Letter grading.

C156A. Introduction to Computer-Assisted Drafting. (4) Studio, eight hours. Study of computer-assisted design for theater, film, and television. Introduction to computer drafting, drawing and editing techniques, drawing floor plans, and elevation drawings. Concurrently scheduled with course C456A. Letter grading.

C156B. Introduction to Computer-Assisted Design. (4) Studio, eight hours. Study of computer-assisted design for theater, film, and television. Investigation of computer-assisted design techniques, including lighting designs, use of symbol libraries, and pictorial. Introduction to computer-assisted drafting. Concurrently scheduled with course C456B. Letter grading.


160. Fundamentals of Play Direction. (3) Lecture, two hours; laboratory, four hours. Required of Theater majors. Course 121 may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under rehearsal conditions.


C163D. Directing Project for the Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requ- isites: courses 163A, 163B, 163C. Application of on-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 C263D. 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.

171A. Advanced Theater Laboratory. (1 to 4) Hours to be arranged. Creative participation as actor or stage manager in public presentation of departmental productions. May be taken for a maximum of 4 units.

171B. Advanced Theater Laboratory. (1 to 4) Hours to be arranged. Creative participation in realization of production elements related to public presentation of departmental productions. May be taken for a maximum of 4 units.

C172. Technical Theater Laboratory. (2) Hours to be arranged. Required of Theater majors. Laboratory in various aspects of theater production. Must be repeated for a maximum of 8 units, but no assignment may be repeated more than once. Concurrently scheduled with courses C272 and C472.

C173A. Design Assignment: Assistant Designer. (3) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as a designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

C173B. Production Design Assignment: Designer. (3) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as a designer, including preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.


174B. Project in Stage Management. (3) Studio, nine hours. Requisite: course 174A. Laboratory experience in the professional duties of assistant stage manager, including participation as an assistant stage manager in preproduction, rehearsal, and performance phases of a production. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in professional duties of stage manager, including participation as stage manager in preproduction, rehearsal, and performance phases of a production. Problems of unions, auditions, organization, scheduling, and responsibilities of a lengthy run. May be repeated three times for credit. Letter grading.

175A-175D. Summer Theater Workshops. (4 or 8 each) Lecture. Participation in production and performance of full-length plays for general public. Offered in summer only. Letter grading. 175A-175B. Practice in and observation of complete operation of a summer theater company. 175C-175D. Specialization in technical theater.


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) multiple-camera experience. May be repeated twice for credit. Letter grading.

180. Senior Project. (4) Lecture/studio, three hours. Requisites: courses 101A, 101B, 101C. Preparation of a conceptual or creative project providing culminating experience in the production of a creative or research work. Letter grading.
C185A. Role of Producer in Professional Theater. (2) Formerly numbered C190A.) Lecture, three hours. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. P/NP or letter grading.

195. Theater, Film, and Television Internship. (2, 4, or 8) Formerly numbered 192.) 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. Students meet on regular basis with instructor and provide periodic report 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. Individual contract required. P/NP or letter grading.

Graduate Courses

202A. Seminar: Western Classical Theater. (4) Discussion, three hours. Designed for graduate students. Examination of theatrical production and dramatic form in the Greek and Roman periods. May be repeated twice for credit.

202B. Seminar: Medieval Theater. (4) Discussion, three hours. Designed for graduate students. Selected studies of theatrical production and dramatic form in the Middle Ages. May be repeated twice for credit.

202C. Seminar: Renaissance and Baroque Theater. (4) Discussion, three hours. Designed for graduate students. Selected studies in theater architecture, theatrical production, and dramatic form in English and Continental theater from 1485 to the early 18th century. May be repeated twice for credit.

202D. Seminar: Bourgeois and Romantic Theater. (4) Discussion, 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.

202E. Seminar: Modern Consciousness in Theater. (4) Discussion, 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.

202F. Seminar: Modern Realism. (4) Discussion, 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.

202G. Seminar: Modern Theatricalism. (4) Discussion, 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.

202M. Seminar: American Theater. (4) Discussion, three hours. Designed for graduate students. Selected studies in theatrical production and dramatic writing in American theater. May be repeated twice for credit.

202P. Seminar: Traditions of African Theater. (4) Discussion, three hours. Designed for graduate students. Selected studies of traditional theater forms such as those indigenous to Ghana, Nigeria, and other African nations and their diaspora (Haiti, Jamaica, and other areas of the Caribbean) through examination of character, structure, performance modes, and archetypes. May be repeated once for credit.

202R. Seminar: East Asian Theater. (4) Discussion, three hours. Designed for graduate students. Selected topics in theater forms of East Asia, including dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

202S. Seminar: South Asian Theater. (4) Discussion, three hours. Designed for graduate students. Selected topics in theater forms of South Asia, including dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

202T. Seminar: Southeast Asian Theater. (4) Discussion, three hours. Designed for graduate students. Selected topics in theater forms of Southeast Asia, including dramatic literature, costume, theater spaces, and critical writings. May be repeated twice for credit.

203. Theater Ethics and Issues. (5) Seminar, four hours. Designed for graduate students. Investigation of key ethical issues and problems that confront the theater artist. May be repeated once for credit.

204. Theater Genres. (5) Seminar, four hours. Designed for graduate students. Study of selected topics in world theater history, drama, and literature of the theater as manifested in one or more of its major forms or genres. May be repeated four times for credit.


206. Themes in World Theater and Drama. (5) Seminar, four hours. Designed for graduate students. Selected topics in world theater history, drama, production, and/or architecture organized on a thematic basis. May be repeated four times for credit.

207A-207B. Theater Aesthetics. (4-4) Designed for graduate students. Discussion of essential issues in aesthetic theories of theater and drama, based on philosophy of art and theories of the theater. 207A. Classical and Medieval Theories of Art and Theater; 207B. Renaissance Theories of Art and Theater to the Present. 208A-208B. Dramaturgy I, II. (4-4) Lecture, three hours; laboratory, one hour. Designed for graduate students. Letter grading. 208A. Theoretical and practical aspects of the dramaturge's work in contemporary theater. Requisite: course 208A. Continuation of study of theory and practice of dramaturgy.

208C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in practice of dramaturgy through completion of approved dramaturgical assignment. May be taken for maximum of 12 units. Letter grading.

209. Theater Authors. (5) Designed for graduate students. Investigation of work of a theater artist from history of world theater, with special emphasis on relationship to time in which the work was generated. May be repeated four times for credit.

210. Topics in World Theater and Drama. (5) Designed for graduate students. Investigation of selected topics in world theater history, production, and architecture. May be repeated four times for credit.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to modernist constructions 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, cinema, and television. May be repeated twice for credit. P/NP or letter grading.

216C. Approaches to Identification. (5) Lecture, three hours; laboratory, one hour. Overview of key theoretical methods, debates, and performance texts and their ideological underpinnings. May be repeated twice for credit. S/U grading.

220. Graduate Forum. (1 to 2) Seminar, one to two 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.

CM229. Contemporary Topics in Theater, Film, and Television. (2) Same as Film and Television CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television. May be repeated twice for credit. Letter grading.

230A-230B-230C. Writing for the Contemporary Theater. (4 to 8 each) Lecture, three hours; studio, two hours. Designed for graduate students. Letter grading. 230A. One-Act Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to the guided completion and critique of student-written one-act plays. 230B. Full-Length Play. Analysis of strategy and dramatic structure of selected contemporary full-length plays leading to the guided completion and critique of a student-written full-length play. 230C. Performance and Text. Exploration of structural strategies, political implications, and technical demands of selected contemporary American plays leading to the guided completion and critique of student work.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, experimental theater, writing for alternative audiences, or children's theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Designed for graduate students. Critical and constructive study of dramatic techniques as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit.


243A-243B-243C. Scenic Design. (4-4-4) Advanced study and practice in scenic design for theater. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of the design. May be repeated once for credit.

244A-244B. Advanced Theater Production. (2 to 8 each) Studio, 12 to 24 hours. Designed for graduate students. Creative participation in preparation and presentation of a theatrical production. Each course may be taken for a maximum of 8 units. Letter grading.

245A. Production Management. (4) Lecture, three hours. Study in production management for the theater. Examination of professional duties of production manager, including production, rehearsal, and performance phases of a production. Includes Program of resource management, unions, organization, scheduling, and budgeting while maintaining a creative and collaborative environment. Letter grading.
245C. Projects in Production Management. (4) Studio/laboratory. Requisite: course 245B. Laboratory experience in professional duties of production manager, including participation as a production manager in preproduction, rehearsal, and performance phases of a production. Problems of resource management, unions, organization, scheduling, and budgeting to establish a creative and collaborative environment. Letter grading.

246A-246B-246C. History of Costume. (4-4-4) Lecture/studio. Designed for graduate students. Study of history of costume as a manifestation of cultural, social, economic, and political influences to provide a historical framework for design of costumes for theater, film, and television. Historic survey and in-depth exploration of a selected period, with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Historic survey and in-depth exploration of selected period, 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 skills of analysis, planning, staging, and criticism through medium of written preparations and directing of scenes. Letter grading.

261. Directing Post-Realist Drama. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Problems in direction of post-realist plays through interpretation and laboratory scene work. Letter grading.

263. Project in Direction for the Stage. (2 to 8) Discussion, one hour; studio, 12 to 30 hours. Designed for graduate students. Direction of a dramatic work, with discussion and critique of work in progress. May be repeated for a maximum of 20 units. Letter grading.

263D. Directing Project for the Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 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 course C163D. Letter grading.

264. Directing Classical and Historical Drama. (4) Lecture, four hours; studio, 30 hours. Designed for graduate students. Problems in interpretation and direction of historical or classical drama through medium of laboratory scene work. Letter grading.

265. Modern Theories of Production. (4) Examination of modern theories of production from emergence of the director in the 19th century to the present. Investigation of different responses to problems of creating stage events in context of ongoing evolution of theater as an art form. Examination of contribution of significant directors and movements; relation between theater and other forms of representation. Letter grading.

266. Theatrical Conceptualization. (4) Examination of process of conceptualization in dramatic production; centrality of theatrical conceptualization in interpretation of dramatic text; exploration of range of possibilities inherent in different theatrical spaces and options in design components. Consideration of visual arts and music as sources of stimulus for theatrical conceptualization, with focus on collaborative aspect of theatrical production. Letter grading.

C272. Production and Performance Laboratory. (2) Lecture, three hours; laboratory, to be arranged. Designed for graduate students. Credit for creative production assignments required of all M.A. students during first three terms in residence. May be repeated twice for credit. Concurrently scheduled with courses C172 and C472.

C285A. Role of Producer in Professional Theater. (2) (Formerly numbered C294A.) Lecture, three hours. Designed for graduate students. Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrently scheduled with course C185A. S/U or letter grading.

C285B. Role of Management in Educational and Community Theater. (2) (Formerly numbered C294B.) Lecture, three hours. Designed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

298A-298B. Special Studies in Theater Arts. (2 to 4 each) Lecture/discussion. Designed for graduate students. Seminar study of problems in theater arts, organized on topic basis. May be repeated once for credit.

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 the University. May be repeated for credit. S/U grading.

404A-404B-404C. Advanced Acting I. (4 or 8-4-4) Studio, six to 18 hours. Development of an internal technique, beginning with an autodrama which is a dramatization of one's personal history. Scene work follows, with emphasis on off-stage preparation, improvisations capturing the circumstances, life of the character, and intentions of the scene. Letter grading.

404B. (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 the actor goes about doing research and fieldwork on the character being played. Letter grading.

404C. (4) Studio, six to 18 hours. Development of an external technique through comedy and of skills, improvisation, physical humor, delivery of a line, rhythm, timing, and public cabaret. Fusion of the internal: use of action and objective with the external. Letter grading.

421A-421B-421C. Advanced Acting II. (4 or 8 each) Studio/laboratory, six to 18 hours. Letter grading.


421B. Continued character behavior study through exploration of character, objectives, and researching the role. Letter grading.

421C. Comedy workshop. Exploration of craft of comedy and development of cabaret pieces. 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 the 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, resonance, and breathing capacity extension. Articulation and phonetic alphabet. Text work in classical verse. 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 the total instrument. Development of a flexible actor with range, expression, and confidence physically. Awakening of the imagination while exploring the worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

425D-425E-425F. Advanced Movement II. (2 or 4 each) Studio/laboratory, three to six hours. Presentation of more complete structure of stage movement and its relationship to theater, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in techniques and exercises of organic physical and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.


430A-430B-430C. Advanced Studies in Playwriting. (4) Lecture, three hours. Limited to M.F.A. playwriting program students. Guided completion of full-length scripts for the stage.

431. Special Topics in Playwriting. (4) Discussion, three hours. Designed for M.F.A. playwriting program students. Analysis and practice of varied aspects of playwright's art. Variable content selected from topics such as comedy writing, docudrama, writing for alternative audiences, adaptation from stage to screen, children's theater, or improvisational techniques. May be repeated twice for credit.


C433A-C433B-C433C. Script Development Workshops. (4 to 8 each) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communication, artistic growth, and professional process. Each course may be taken for a maximum of 8 units. Concurrently scheduled with courses C133A-C133B-C133C. Letter grading.


441A-441B-441C. Lighting Design. (4-4-4) Lecture/studio. Letter grading.

441A. (4) Lecture/studio. Study and practice in lighting the actor, emphasizing textual and character analysis from lighting designer's perspective, conceptual development with the director, effect of light on dynamics of staging, use of contrast, and relationship of lighting designer to the actor. May be repeated once for credit. Letter grading.
441B. (4) Lecture/studio. Study of use of light and color to define space, effect of light on scenery and costumes, lighting for theater, television, dance, and film. Study of analysis of script and score for lighting designer. May be repeated once for credit. Letter grading.

441C. (4) Lecture/studio. Investigation of lighting design in production, musical theater, opera, and television. Study of character analysis leading to visual presentation of design. May be repeated once for credit. Letter grading.

441D. Scenic Projection and Media Techniques. (4) Lecture/laboratory. Designed for graduate students. Advanced study and practice in scenic projection and media techniques, with emphasis on analysis, design, and execution of theatrical projection and photographic technique for the stage.

442A-442B-442C. Costume Design. (4-4-4) Lecture/studio. Advanced study and practice in costume design for theater. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, period style, and character analysis leading to visual presentation of the design. Study of costume design for theatrical productions, ballet, opera, and musical theater. May be repeated once for credit. Letter grading.

443. Production and Set Design. (4) Lecture, four hours; laboratory, four hours. Study and practice in design techniques for theater. May be repeated for a maximum of 12 units.

C444A-C444B-C444C. Advanced Sound Design. (4-4-4) Lecture, four hours; laboratory, four hours. Concurrently scheduled with courses C144A-C144B-C144C. Letter grading.

C444A. (4) Lecture, four hours; laboratory, four hours. Study of sound and acoustics as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and reproduction of dialogue, effects, and music tracks for the theater. May be repeated once for credit. Letter grading.

C444B. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and rendering of theater sound designs, with emphasis on analysis of script and score, conceptual development of the design, and multitrack recording techniques to realize the design. May be repeated once for credit. Letter grading.

C444C. (4) Lecture, four hours; laboratory, four hours. Study and practice in processing and mixing of live and recorded sound; mix-down of multitrack recordings; preparation of sound tracks and sound reinforcement. Concurrently scheduled with courses C144A-C144B-C144C. Letter grading.

C445A. Perspective Rendering. (2) Studio, four hours. Requisite: course 147A. May be repeated once for credit. Letter grading.

C445B. 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, fabrics, and other surfaces. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

C445C. Marker Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice of marker rendering techniques as a means of communication for scenic and costume designers. Letter grading.

C455A. Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including painting of brick, wood, stone, fabrics, and other surfaces. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

C455B. Advanced Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study of perspective drawing of human form. Letter grading.

C455C. 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, fabrics, and other surfaces. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

C455D. Advanced 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, fabrics, and other surfaces. Graduate students expected to produce drawings demonstrating a higher level of proficiency and skill. Letter grading.

C455E. Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. 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 scene painting techniques and materials and their realization of color design and elevations. May be repeated 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.

C456. Introduction to Computer-Assisted Drafting. (4) Studio, eight hours. Study of computer-assisted design for theater, film, and television. Introduction to computer drafting, drawing and editing techniques, drawing floor plans, and elevation drawings. Concurrently scheduled with course C156A. Letter grading.

C456B. Introduction to Computer-Assisted Design. (4) Studio, eight hours. Study of computer-assisted design for theater, film, and television. Investigation of design research process, period style, and conceptualization. May be repeated once for credit. Letter grading.

C456C. Introduction to Computer-Assisted Rendering. (4) Studio, eight hours. Study of computer design for theater, film, and television. Investigation of three-dimensional computer design, with emphasis on perspective drawing and photo-realistic computer rendering techniques. Concurrently scheduled with course C156C. Letter grading.


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.

C463. Production Project in Direction for the Stage (8 or 12 units). Studio, 24 hours. Designed for graduate students. Creative participation as director in conceptualization and preparation of a dramatic work. Letter grading.
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Gilda Haas, M.A.
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Scope and Objectives
The professional urban planner works on the creation and management of the urban envi-
ronment, including its physical, economic, and social elements. Housing, transportation, air
and water quality, the preservation of historic communities, and the development of commu-
nity-level economic and employment programs are some of the tasks undertaken by recent
graduates of the UCLA Department of Urban Planning. Graduates have taken positions
in local, state, and national governments, and in
creasingly with nonprofit and private compa-
nies whose products and services affect the
urban environment. While most UCLA gradu-
ates find positions in the U.S., the program of-
fers the opportunity to specialize in develop-
ment planning abroad, including rural develop-
ment, and many graduates have found positions in Latin America, Africa, and Asia.

The program offers a two-year Master of Arts
degree and a Ph.D. degree. Concurrent de-
gree programs allow students to combine study for an M.A. in Urban Planning with work
and an M.B.A. in the John E. 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, or an M.A.
in Latin American Studies.

The department takes pride in its collegial at-
mosphere. 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.

Graduate Study
Official, specific degree requirements are de-
tailed in Program Requirements for UCLA Graduates Degrees, available at the Graduate
Division website, http://www.gdnet.ucla.edu. 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 Urban Planning offers Mas-
ter of Arts (M.A.) and Doctor of Philosophy
(Ph.D.) degrees in Urban Planning. Four con-
current degree programs (Urban Planning
M.A./Architecture M.Arch. I, Urban Planning
M.A./Latin American Studies M.A., Urban
Planning M.A./Law J.D., and Urban Planning
M.A./Management M.B.A.) are also offered.

Urban Planning
Upper Division Courses
120. Introduction to Cities and Planning. (4) (For-
merly numbered 191.) Lecture, three hours. Survey of
urban history and evolution in the U.S., urban social
theory, current growth trends, system of cities, urban
economy and economic restructuring, traditional and
alternative location theories, urban transportation,
and residential location and segregation. P/NP or let-
ter grading.
121. Urban Policy and Planning. (4) (Formerly numbered 192.) Lecture, three hours. Examination of current urban 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 diversity, environmental justice, sustainability, and future of cities. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) (Formerly numbered M198.) (Same as Asian American Studies M108.) Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.

129. Special Topics in Urban Policy and Research. (4) (Formerly numbered 193.) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, environmental planning, housing and community development, international planning and development, land use, or urban design) in some depth. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.

130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. processes that shape urban economic activity have evolved and are shaped by the composition of the country’s world population is becoming more urbanized with each passing decade. National, state, and local governments are engaged in managing, planning, and making, and governance in urban context. Ultimate efficacy of those public activities can be enhanced by understanding of economic forces acting on urban areas. Basics of location choice, agglomeration effects, economies of scale, and specialization by cities and transportation. P/NP or letter grading.

C133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropole. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan planning, urban fiscal crisis, urban social structure, and its importance in shaping climate for passage of these laws in response to growing understanding of effects of industrial pollution and urbanization, and subsequent rise of environmental justice movement and its influence on legislation. Letter grading.

M162. Land Use and Environmental Development. (4) (Same as Environmental M162.) Lecture, four hours. Examination of institutional and historical evolution of land use in the U.S. and contrasting of how cities have evolved in different parts of the U.S. and some recent trends in urbanization. Relationship of state/local land use policies and politics and ways in which localities plan. Environmental, social, and equity aspects of growth and organization and likely trends into future. Letter grading.


M170. Human Environment: Introduction to Architecture and Urban Planning. (4) (Formerly numbered M190.) (Same as Architecture and Urban Design M170.) Lecture, three hours; outside study, nine hours. Enthusiasts and emphasis on antipathy policies of government and nonprofit organizations and urban and economic development strategies. Attention also to literature on the underclass. Letter grading.

141. Planning for Minority Communities. (4) (Formerly numbered 187.) Lecture, three hours. Introduction to inner-city policy issues on three separate levels: (1) each student develops comprehensive inner-city urban planning using materials from Alternatives Inner-City Future Exercise, (2) each student is expected to identify value assumptions and theories of social justice implicit or explicit in alternative intervention projects, (3) each student is expected to participate in class discussions that emphasize minority issues which affect implementation. P/NP or letter grading.

M150. Transportation Geography. (4) (Formerly numbered M149.) (Same as Geography M149.) Lecture, three hours. 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.

CM160. Environmental Politics and Governance. (4) (Same as Environment M164.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and 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. Concurrently scheduled with course C260. Letter grading.

M161. Environmental Policies and Politics. (4) (Same as Environment M168.) Lecture, four hours. Exploration of origins of major environmental laws, how they have evolved over past two decades, and how they have been implemented, with particular focus on California. Rise of environmental movement and its importance in shaping climate for passage of these laws in response to growing understanding of effects of industrial pollution and urbanization, and subsequent rise of environmental justice movement and its influence on legislation. Letter grading.

M171. Planning Issues in Latina/Latino Communities. (4) (Formerly numbered M122.) (Same as Chicana and Chicano Studies M122.) Lecture, three hours. Exploration of socioeconomic, demographic, and political forces that shape low-income community and analyses of planning intervention strategies. Emphasis on community and economic development and environmental equity. Letter grading.

M175. Women and the City. (4) (Formerly numbered M194.) (Same as Women’s Studies M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationship between women and cities. (1) how cities have affected women’s opportunities for economic and social equality, (2) women’s contributions to development of U.S. cities, and (3) contemporary strategies and efforts to create urban environments that reflect women’s needs and interests. P/NP or letter grading.

C184. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C284. Letter grading.

191. Seminar: Urban Research in Urban Planning. (2 to 8) Tutorial. Three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) (Same as Architecture and Urban Design M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding the nature of speculative inquiry in an architectural context. Letter grading.

M202A. Public Control of Land Development. (3 to 6) (Same as Law M286.) Lecture, three hours. Analysis of legal and constitutional constraints on land-use planning and development; administrative and environmental regulatory processes, including relationship between law and planning, formulating land-use legislation, zoning, subdivision controls, eminent domain, taxation, urban development, environmental law, and negotiation. Theory and doctrine applied to case studies; research project/paper and/or examination required.

M202C. Seminar: Urban Affairs. (3 to 6) (Same as Law M526.) Seminar, two hours; two field trips. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; practices of housing consumers; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as antispeculation and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered.

M204. Research Design and Methods for Social Policy. (4) (Same as Public Policy M218.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative 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.

M206A. Introduction to Geographic Information Systems. (4) (Same as Public Policy M224A.) Lecture, three hours; laboratory, one hour. Preparation: one graduate-level statistics course, familiarity with one packaged statistics program. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address a planning problem. Letter grading.

M206B. Advanced Geographic Information Systems. (4) (Same as Public Policy M224B.) Lecture, four hours; laboratory, four hours. Requisite: course M206A or Public Policy M224A. Principles and skills of geographic analysis and modeling; managing, processing, and interpreting spatial data. Especially useful for students interested in environmental, demographic, suitability, and transportation-related research. Scripts (Avenue), modeling (Spatial Analyst), network analysis, and transportation modeling (TranSCAN). Letter grading.

207. Applied Microeconomics for Urban Planning. (4) Lecture, three hours. Preparation: passing score on microeconomics placement given first day of class. Practical use of economics in analyzing public resource allocation problems. Topics include review of marginal analysis, difference between equity and efficiency, public goods and free rider problem, environmental pricing, public service pricing, and conflicts between individual and collective rationality. Letter grading.


209. Special Topics in Planning Theory. (4) Lecture, three hours. Topics in planning theory selected by faculty members. May be repeated for credit. S/U or letter grading.

210A. Introduction to Planning Theory. (4) Lecture, three hours. Historical introduction to major ideas and theories of planning which have influenced its development from the early 19th century to the present. Letter grading.

210B. Comparative History of Planning Practice. (4) Lecture, three hours. Limited to Ph.D. and advanced M.A. students. Examination of history and historical method in planning through group discussion, oral presentation, and written assignments. Organization of course into three parts to develop critical historical skills: historiography and historical methods, critique of planning histories of Los Angeles, and writing of urban history. S/U or letter grading.

210C. Colloquium in Planning Theory. (4) Lecture, one hour; discussion, two hours. Requisite: course 210A. Limited to Ph.D. students. Introduction to some central theoretical issues of contemporary planning.

211. Law and the Quality of Urban Life. (4) Lecture, three hours. Introduction to law as an urban system, directed primarily toward those interested in intersection of law and policy; broad array of urban issues examined as it serves a role as a partial cause and cure of urban problems. Examination of law as a changing process rather than a collection of principles, so that students develop facility to interact with law and legally based for planning professionals. Organization of course into three parts to develop critical historical skills: historiography and historical methods, critique of planning histories of Los Angeles, and writing of urban history. S/U or letter grading.

215. Special Topics in the Built Environment. (4) Lecture, three hours. Topics in the built environment selected by faculty members. May be repeated for credit. S/U or letter grading.


218. Graphics and Urban Information. (4) Lecture, two hours; studio, one hour. Presentation of basic graphic methods and tools for conceptualization, analysis, and documentation of the built environment. Development of fundamental skills of graphic ideation and communication. Letter grading.

219. Special Topics in Regional Planning. (4) Lecture, three hours. Topics in regional planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

M220. Introduction to Regional Planning. (4) (Same as Public Policy M241.) Lecture, three hours; laboratory, one hour. Concepts of three-dimensional space, modeling, and virtual reality; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

225. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

M230. Introduction to Regional Planning. (4) (Same as Public Policy M241.) Lecture, three hours; laboratory, one hour. Concepts of three-dimensional space, modeling, and virtual reality; file formats; modeling, rendering, and animation programs; video conference. Letter grading.

C233. Political Economy of Urbanization. (4) (Formerly numbered 233.) Lecture, three hours. Introduces to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of metropolises. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban social movements. Concurrently scheduled with course C133. S/U or letter grading.

234A. Development Theory. (4) Lecture, three hours. Review of basic schools of thought on development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various urban and rural social and economic structures in the Third World. Introduction, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and rural and urban impacts. Goals: students important background for courses 234B, M234C, and many of the other planning courses addressing Third World issues. Letter grading.

234B. Rural Development Issues. (4) Lecture, three hours. Review of basic schools of thought on development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various urban and rural social and economic structures in the Third World. Introduction, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and rural and urban impacts. Goals: students important background for courses 234B, M234C, and many of the other planning courses addressing Third World issues. Letter grading.

235A-235B. Urbanization in Developing World I, II. (4-4) Lecture, 90 minutes; discussion, 90 minutes. Course 235A is requisite to 235B. Questions of urbanization and planning in first term; rural development in second term. Case studies from Latin America, Africa, and Asia. Lectures, student presentations, and policy debates. Letter grading.

M236A. Theories of Regional Economic Development I. (4) (Same as Public Policy M240.) Lecture, three hours; laboratory, 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.
M240. Local Government. (4) Lecture, three hours. Requisite: course M236A. Application of theories of region-
al economic development, location, and trade learned in course M236A to contemporary process known as
globalization. Examination of nature and effects of
globalization on development, employment, and so-
cial structure, along with implications for policy. Letter
grading.

236C. Advanced Workshop on Regions in World
Economy. (4) Lecture, three hours. Requisite: course
236B. Advanced workshop on regional development
examining challenges of organization of production sys-
tems, their geographies, and processes which affect
regional performance in globalized environment. Let-
ter 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 and 202. Survey of economic and politi-
cal determinants of trend toward privatizing public
services, and equity and efficiency outcomes of this
trend as expressed through new pricing, financing,
and service-level endeavors. New regulat-
ory role this trend implies for state and local govern-
ments. Letter grading.

245. Urban Public Finance. (4) Lecture,
three hours. Requisite: course 207. Theory and prac-
tice of urban public finance, with emphasis on
methods used to fund public infrastructure. Topics in-
clude fiscal impact analysis of real estate develop-
ment, effects of sale of services, benefit assessments for
financing neighborhood public investment,
private and intergovernmental contracting as
method of supplying urban public services, tax incre-
ment finance for urban redevelopment, and municipal
bond market.

246. Poverty, the Poor, and Welfare Reform. (4)
(Same as Public Policy M214 and Social Welfare
M290L.) Lecture, three hours. Major policy and re-
search issues concerning poverty and social welfare
policy directed toward poor in the U.S. S/U or letter
grading.

247. Race, Gender, Culture, and Cities. (4)
Discus-
sion, three hours. Exploration of cultural context of
contemporary U.S. cities with focus on changing
social and spatial relations of ethnic communities and
their policy implications. Topics relate the new diversi-
ty and gender with global restructuring, new urban
income, and policies of workplace, housing,
schools, and governance.

248. Law and the Poor. (4) (Same as Law M215,
Public Policy M295, and Social Welfare M290R.) Le-
cure, three hours. Designed for graduate students.
Study of major income-maintenance programs in the
U.S., with emphasis on interaction of moral attitudes
toward the poor and structure and implementation of
law, policy, and administration. Current reform con-
sensus and major reforms. Letter grading.

249. Special Topics in Social Policy and Analysis.
(4) Lecture, three hours. Topics in social policy and
analysis selected by faculty members. May be repeat-
ed for credit. S/U or letter grading.

250. Introduction to Social Policy. (4) Lecture,
three hours. Analysis of demographic changes, histo-
ry, needs, and ideological debates which affect devel-
opment of social policy in the U.S., compared with
Western Europe.

251. Planning for Multiple Publics. (4) Lecture,
three hours. Exploration of planning needs of various
social groups in urban settings, using existing litera-
ture and resources to determine appropriate
mechanisms of planning for multiple publics. Analysis
of communities in Los Angeles metropolitan area to
gain insights into practical, theoretical, and method-
ological problems of planning for multiple publics.
Generally taken in first year.

252. Social Impact Analysis. (4) Lecture,
three hours. Exploration of ways of assessing and deter-
mining social impacts on communities resulting from
large-scale planning projects. Students develop miti-
gation measures to address identified adverse conse-
quences, S/U or letter grading.

253. Sprawl. (4) (Not the same as course 253 prior
to Fall Quarter 2002.) Lecture, three hours. Suburbs are
not new, but metropolitan areas in the U.S. and else-
where 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.

254. Transportation, Land Use, and Urban Form.
(4) (Same as Public Policy M220.) Lecture, three hours.
Historical evolution of urban form and transporta-

tion systems, intrametropolitan location theory, re-
cent trends in urban form, spatial mismatch hypothe-
sis, jobs/housing balance, transportation in strong
central city and polycentric city, neotraditional town
planning debate, rail transit and urban form. Letter
grading.

255. Transportation Planning. (4) (Same as Pub-
lic Policy M244.) Lecture, three hours. Examination of
how planners analyze, manage, and operate trans-
portation systems. Measuring system performance,
intelligent transportation systems, transportation sys-
tem demand management, parking management,
freight movement and facilities, public transit evalua-
tion and management, paratransit, bicycle and pe-
destrian planning, transportation for elderly and dis-
abled. Letter grading.

256. Travel Behavior Analysis. (4) (Same as Pub-
lic Policy M221.) Lecture, three hours. Requisites:
courses 207 and 220B, or Public Policy 201 and 203.
Descriptions of travel patterns in metropolitan areas,
recent trends and projections into future, overview of travel
service and subsidy policies, contracting and privatization of
transit services. Letter grading.

257. Transportation Economics, Finance, and
Policy. (4) (Same as Public Policy M222.) Lecture,
three hours. Overview of transportation finance and
economics; concepts of efficiency and equity in trans-
portation finance; historical evolution of highway and
transit finance; current issues in highway finance; pri-
vate participation in road finance, toll roads, road
costs and cost allocation, truck charges, congestion
pricing; current issues in transit finance; transit fare
and subsidy policies, contracting and privatization of
transit services. Letter grading.

258. Transportation and Environmental Issues.
(4) (Same as Public Policy M223.) Lecture, three
hours. Regulatory structure linking transportation, air
quality, and energy issues, chemistry of air pollution,
overview of transportation-related approaches to air
quality enhancement; new car tailpipe standards; ve-
hicle inspection and maintenance; transportation
demand management and transportation control
measures; alternative fuels and electric vehicles; cor-
porate average fuel economy and global warming is-
suces; growth of automobile, truck, and automobile
in sustainability debate. Letter grading.

259. Environmental Politics and Governance.
(4) (Formerly numbered 260.) Lecture, three hours.
Environmental planning is more than simply finding
problems and fixing them. Each policy must be nego-
tiated and implemented within multiple, complex sys-
tems of governance. Institutions and politics matter
deeper. Overview of how environmental governance
works in practice and how it might be improved.
Generally scheduled with course CM160. Letter grad-
ing.

261. Land-Use Control: Economic and Structural
Perspectives. (4) Lecture, two hours; discussion, one
hour. Comparison of regulatory methods of land-
use control to command or planning methods. Basics of
land use as a commodity in first part; land econom-
ics, land markets. Development, historically, of a
structuralist perspective on use of land in cities and
regions in second part. Land-use regulation (in third
part) in light of first two, to see how effective it is in
steering course of land development. Regulatory
approach compared with real planning. S/U or letter
grading.

262A. Toxics Reduction: Science, Engineering,
and Policy Issues. (4) (Same as Environmental
Health Sciences M249.) Lecture, three hours. Requi-
site: course C260. Public health experts, industrial
engineers, and planners are being asked to assess
risks biologically active chemicals present and to take
such risks into account in planning process. Examina-
tion of potential for toxics reduction and current state
goals and industry activities in this area. Let-
ter grading.
262B. Urban Environmental Problems: Water Resources. (4) Lecture, three hours. Water is life and wealth in our world’s most prominent cities and most important regions. The rationales for interbasin water transfer systems. To date, water resources planning has been devoted almost exclusively to adding facilities for water delivery. But conflicts over additional developments have been synchronized with the depletion of this system, despite growing pressures to increase supplies. Examination of environmental impacts, geography, use of water, and consideration of resource planning.

M262C. Pollution Prevention. (2) (Same as Environmental Health Sciences M239.) Seminar, one hour. Designed for graduate students. Series of talks by academics, policymakers, industry representatives, and public agencies addressing the opportunities for and obstacles to adopting principles of pollution prevention, including several case studies of specific policy and industry initiatives in this area. S/U grading.


M264. Environmental Law. (3 to 6) (Same as Law M260.) Lecture, three to six hours; one-half hour. Examination of the field of environmental law through analysis of various legal issues and public policy: legal consequences of public decision-making strategies and the role of public interest in influencing responsibility for various environmental decisions. Focus on air pollution and Clean Air Act as a means of illustrating policy issues underlying the field.

C265. Environmentalism: Past, Present, and Future. (4 to 6) Lecture, three hours; optional field study, five to 10 hours. Exploration of history, politics, and theories of environmental movements, dynamics of race, class, and gender in relation to environmental agendas, and potential role of environmentalism in re-shaping our society. Concurrently scheduled with course CM165. 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 204 and 208. Survey of ways economic analysis is defined to analyze, and resolve problems of environmental management. Overview of analytical questions addressed by environmental economists which bear on public policies. Letter grading.


269. Special Topics in Environmental Analysis and Policy. (4) Lecture, three hours. Topics in environmental analysis and policy selected by faculty. May be repeated for credit or letter grading.

M270. Homelessness: Housing and Social Services Issues. (4) (Same as Social Welfare M206A.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, existing and proposed programs — 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 neighborhood development strategies, issues, important concepts and resources, and their role in the 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. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, design, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions which are interactively modified to meet economic feasibility tests. S/U or letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 90 minutes. Introduction to principles of site planning for urban areas.

274. Introduction to Physical Planning. (4) Lecture, 90 minutes; discussion, 90 minutes. Overview of physical planning, land use, site analysis, and survey; general plans and community plans; environmental review; zoning and ordinances; social impacts.

M275. Community Development and Housing Policies: Roles of State, City, and Nonprofits. (4) (Same as Public Policy M243 and Social Welfare M290L.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M276. Urban Housing and Community Development. (3 to 4) (Same as Law M287.) Lecture, three hours; discussion, one hour. Examination of past 40 years of federal and state programs to stem urban decline and improve housing in the U.S.; comparison and contrast of legal and policy initiatives in areas of public housing, housing segregation, mortgage subsidies, landlord/tenant law, urban renewal, and community organizing. Research paper required. Letter grading.

277. Historic Preservation: Principles and Practice. (4) Lecture, 90 minutes; discussion, 90 minutes. Overview of preservation field, including history and theory, current legislation, tax incentives, preservation planning, landmark and district surveys and designations, adaptive reuse, citizen involvement, and social issues.

278. Qualitative Research Methods for Planners and Designers. (4) Lecture, 90 minutes; discussion, 90 minutes. Emphasis on conceptualizing research projects using grounded theory; relation to survey data. Techniques include content analysis, user needs analysis, participant observation, questionnaire construction, interview techniques. Projects include students’ own research.

279. Seminar: Public Space. (4) Seminar, three hours. Investigation of changes in production, consumption, design, and meaning of public space and analysis of socioeconomic, political, and cultural factors that lie behind them. Letter grading.

280. Nonprofit Housing Development. (4) Discussion, three hours. Overview of basic concepts and skills utilized in nonprofit development initiatives, especially by community organizations. Focus on nonprofit provision of subsidized housing, emphasizing way professionals’ “broker” debt and equity funding from private sources and community, and philanthropic sources of cash. Students and negotiation exercises. S/U or letter grading.

281. Introduction to History of Built Environment in the 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, Applications. (4) Lecture, three hours. Discussion and evaluation of philosophical bases, ideologies, and paradigms of urban design in last century; examination of how these are reflected on the built environment of cities. Letter grading.

283. History of the American Household and American Home. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisite: course 281. Introduction to history of housing design in the U.S., emphasizing changing roles of women and men from Colonial times to the present and effects of these social changes on physical form of the dwelling and settlement. Discussion of concerns of professional architects and planners, as well as activity of bankers, builders, and homemakers.

C284. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C184. Letter grading.

285. Women and Community Development: Great Gender Debates. (4) Seminar, 90 minutes; 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 household 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. 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 the U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between the U.S. and other countries. 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. Designed for graduate students. 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 the U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between the U.S. and other countries. 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 planning social welfare 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.
M290. Strategic Planning for Public and Nonprofit Organizations. (4) (Same as Public Policy M247 and Social Welfare M411J) 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 knowledge and skill set possessed by agency and program administrators on one hand and by policy analysts and policymakers on other. Letter grading.


M292. Elements of Urban Design. (4) (Same as Architecture and Urban Design M271) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to a set of varied physical environments and to a 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.

298. Special Topics in Emerging Planning Issues. (2 to 4) Discussion, two to 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 the University. May be repeated for credit. S/U grading.

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design M429) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for a 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.

M470. Introduction to Occupational and Environmental Health Education. (2 or 4) (Same as Community Health Sciences M470) Lecture, three hours. Preparation: at least three social sciences courses. Designed to provide students with understanding of problem areas of occupational and environmental health and health education interventions which can be applied. Letter grading.

496. Field Projects. (4) Tutorial, four hours. May not 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. Research in Planning. (4) Tutorial, four hours. May be repeated once for credit. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examination. (4) Tutorial, four hours. May be repeated by M.A. students but may not be repeated by Ph.D. students; 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 not be applied toward degree only once. S/U grading.


**URBAN STUDIES**

**Interdepartmental Program College of Letters and Science**

**UCLA**

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Paul M. Ong, Ph.D., Chair

Faculty Advisory Committee Professors

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Eric H. Monkonen, Ph.D. (History, Public Policy)

Paul M. Ong, Ph.D. (Urban Planning)

Janice L. Reiff, Ph.D. (History, Statistics)

Brian D. Taylor, Ph.D. (Urban Planning)

**Scope and Objectives**

Cities are multifaceted and can usefully be explored from more than one disciplinary perspective. The undergraduate specialization in Urban Studies brings together students and faculty from the Departments of Economics, Geography, History, Political Science, Psychology, and Sociology who share an interest in the urban experience. The undergraduate specialization in Urban Studies is open to qualified students. Upper Division requirements are satisfied by the core courses, and also by writing requirements, courses in upper division levels of two departments, and by completion of service requirements. The undergraduate specialization in Urban Studies is also open to qualified students who have completed the requirements for two departments, and who have completed courses in upper division levels of each department. Students must be admitted to the program by the Dean of Undergraduate Studies in the appropriate department. Students may elect to combine the Urban Studies specialization with a departmental major and may petition to have the area of specialization recognized with the bachelor’s degree.

**Undergraduate Study**

**Urban Studies Specialization**

Students may elect to combine the Urban Studies specialization with a departmental major and may petition to have the area of specialization recognized with the bachelor’s degree.

The option of completing an individual major in Urban Studies is also open to qualified students. For more information on individual majors, see the College of Letters and Science section of this catalog.

Students with a departmental major should seek advising in their major department. Those interested in the individual major should consult a Letters and Science counselor.

Courses within the specialization must be taken for a letter grade. The specialization must be taken in conjunction with a major in the division of social sciences.

**Preparation for the Specialization**

**Required:** At least five of the following courses appropriate to the courses to be taken in the specialization: Economics 1, 2; Geography 4; Political Science 40; Psychology 10; Sociology 1, 118, 20 or equivalent.

**Upper Division Requirements**

**Required:** Nine upper division courses, including (1) at least three courses outside the major department selected from Anthropology 167, Economics 137, Geography 150, Psychology 168, Sociology 158; (2) a minimum of three courses selected from one of the following suites within the major department: Economics 130, 133; Geography 150, 156; History 145A through 145D; Political Science 143A, 143B, 167B; Psychology 127, 135; Sociology 132, 156, 160; (3) a minimum of three courses selected from one of the suites in Item 2 in the department outside the major department; (4) internship experience in an urban governmental or community service organization. For further information, contact the political science undergraduate counselor in the program office.

**UROLOGY**

David Geffen School of Medicine

UCLA

66-143 Center for the Health Sciences

Box 951738

Los Angeles, CA 90095-1738

(310) 825-5088

http://www.uclourology.com

**Chairs**

Jean B. deKernion, M.D. (Fran and Ray Stark Foundation Professor of Urology), Chair

Peter G. Schulam, M.D., Vice Chair

**Director**

Mark S. Litwin, M.D., M.P.H., Director of Medical Student Education

**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 UCLA, Harbor-UCLA, Olive View-UCLA, UCLA-Santa Monica Hospital, and West Los Angeles VA Medical Centers.

For further details on the Department of Urology and a listing of the courses offered, see http://www.uclaurology.com.

**Women's Studies**

**Interdepartmental Program**

**College of Letters and Science**

UCLA
2524 Hershey Hall
Box 951504
Los Angeles, CA 90095-1504
(310) 206-8101
fax: (310) 206-7700
e-mail: women@women.ucla.edu
http://www.women.ucla.edu

Emily K. Abel, Ph.D., Chair

Faculty Advisory Committee

Emily K. Abel, Ph.D. (Health Services)
Maylei S. Blackwell, Ph.D. (Chicana and Chicano Studies)
Karen B. Brodkin, Ph.D. (Anthropology)
Esha N. De, Ph.D. (English Composition)
Sondra Hale, Ph.D. (Anthropology) ex officio
Sandra Harding, Ph.D. (Economics)
Aziza Khazzoom, Ph.D. (Sociology)
Rachel C. Lee, Ph.D. (Asian American Studies, English)
Christine A. Littleton, J.D. (Law) ex officio
Elizabeth A. Marchant, Ph.D. (Spanish and Portuguese)
Kathleen A. McHugh, Ph.D. (English, Film, Television, and Digital Media)
Kathryn Norberg, Ph.D. (History)
Sule Ozler, Ph.D. (Economics)
Kendahl Radcliffe, Ph.D. (History) ex officio
James A. Schultz, Ph.D. (Germanic Languages) ex officio
Caroline A. Streeter, Ph.D. (English)

**Scope and Objectives**

The Women’s Studies Program provides interdisciplinary academic programs that span departments, disciplines, and ideologies. The undergraduate program offers a Bachelor of Arts degree and a minor; the graduate program offers the Master of Arts and Ph.D. degrees.

The programs provide students the opportunity to study the full range of human experience and arrangements of social organization from the perspectives of those whose participation has been traditionally distorted, omitted, neglected, or denied — women in their racial, class, sexual, national, and cultural diversity. Students develop critical reasoning and analytical, research and communication skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and cultures, and conceptual tools for social change. Emphasis on multidisciplinary, multiethnic, and transnational approaches assures a broader exposure to the humanities and social sciences than is commonly available within disciplinary confines. A background in women’s studies offers unique contextual validation for today’s gender controversies and prepares students for a wide range of career and life choices.

The core faculty members who teach women’s studies courses come from various UCLA departments, area studies centers, and professional schools. Many professionals within and outside the University contribute their time, expertise, and enthusiasm. A governance committee composed of the chair, faculty members, and graduate and undergraduate student representatives sets program policies and curriculum.

The program sponsors two student associations and assists other student groups with extracurricular programming on feminist issues. Research in women’s studies is promoted in cooperation with the Center for the Study of Women.

**Undergraduate Study**

**Women’s Studies B.A.**

The interdisciplinary major in Women’s 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 Women’s Studies 10, be in good standing, and formally register with the program. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the chair or 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 women’s 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.

All courses 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 women’s studies courses to receive credit for completing the program. Courses in which they receive a grade of C– or lower may not be applied toward the core requirements in the major.

**Preparation for the Major**

**Required:** Women’s Studies 10. Students must also complete departmental lower division requisites, as applicable, for upper division women’s studies courses in the disciplines.

**Transfer Students**

Transfer applicants to the Women’s Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary feminist perspectives on women and society course and departmental lower division requisite 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**

The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods, (2) provide exposure to a range of feminist scholarship across disciplines, and (3) enable students to acquire a depth of knowledge within one or two disciplinary or topical fields of inquiry. To achieve this goal, the major is divided into three categories.

**Required:** At least 13 upper division courses as follows:

1. Three core courses, including (a) one feminist theory course from Women’s Studies 110A or 110B or 1110C, (b) course 130 or one course on the study of American ethnic minority women from the approved list of women’s studies credit courses issued each term by the program, and (c) course 187

2. A distribution of at least four courses, each from a different department or discipline, selected from the approved list of women’s studies courses

3. Six additional concentration courses from one or two of the disciplines in which the core and distribution courses have been taken. Students may petition for interdisciplinary or topical concentrations such as feminist theory, women of color, women’s health, or lesbian studies. If two fields are selected, the ratio of the six courses may be divided 3-3 or 4-2

Four units of Women’s Studies 195 through 199 may be applied toward the concentration requirement for the major. This limit does not apply to Women’s Studies 198A, 198B.

**Honors Program**

The honors program is open to advanced junior and senior Women’s Studies majors with a 3.4 grade-point average in women’s studies courses and a minimum 3.0 overall GPA who have no outstanding Incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the program chair for approval. Students wishing to undertake honors in the major are encouraged to
Women's Degrees

Graduate Study

Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnet.ucla.edu. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Women's Studies Program offers Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees in Women's Studies.

Women's Studies

Lower Division Course

10. Introduction to Women's Studies: Feminist Perspectives on Women and Society. (5) Lecture, three hours; discussion. Introduction to study of women and men in society, covering comparative issues of social, political, and economic position in the workplace, family, cultural institutions; historical basis of women's subordination; the female experience; relations between women and men; intersections of ethnicity, class, and gender; violence against women; cultural images of women and men; and movements for social change. P/NP or letter grading.

Upper Division Courses


M101C. Special Topics in Lesbian and Gay Literature. (5) (Same as English M101C and Lesbian, Gay, Bisexual, and Transgender Studies M101C) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in lesbian and gay literature. Topics focus on particular problem or issue in terms of lesbian and gay culture and writing. May be repeated for credit. P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (3) (Same as Gerontology M104C and Social Welfare M104C) Lecture, four hours. Exploration of complexity of variables related to diversity of the aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in a multidisciplinary perspective utilizing faculty from a variety of fields to address issues of diversity. Letter grading.

105. Topics in Women and Medicine. (4) Lecture/discussion, three hours. Examination of medical conditions of women in context of issues that impact women's health, health care, and health care providers. Discussion of basic health concepts and self-care; consideration of a women's health specialty and ways to deliver health care to women. Examination of roles and lifestyles of female physicians. P/NP or letter grading.


M107A. American Women Writers. (5) (Same as English M107A) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by American women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by American women. P/NP or letter grading.

M107B. British Women Writers. (5) (Same as English M107B) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Survey of literary works by British women writers, with emphasis on roles of women, portrayal of nature and society, and evolution of forms and techniques in writing by British women. P/NP or letter grading.

M107C. Special Topics in Women and Literature. (5) (Same as English M107C) Lecture, four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in women and literature, with emphasis on a period, genre, particular theme, or nonnational literary grouping. P/NP or letter grading.

M108. Love and Sex in German Literary Tradition. (4) (Same as German M108) Lecture, three hours. Study of major literary works that address issues of idealized desire, emotional/sexual boundaries, and development of sexual identity. Letter grading.

M108S. Violence against Women. (4) (Formerly numbered M187.) (Same as Social Welfare M108S) Lecture, three hours. Required: course 10. Factual information and theoretical analyses regarding various forms of violence against women and girls in their homes, workplaces, and communities through critical examination of social structures and social science research. Letter grading.

M109. Women in Jazz. (4) (Same as Afro-American Studies M109 and Ethnomusicology M109) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from the 1880s to the present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

110A. Feminist Theories in Social Sciences. (4) Lecture/discussion, three hours. Required: course 10. Multidisciplinary explorations of theorists’ attempts to describe, explain, and critique social institutions, considering impact of race, ethnicity, class, etc. Emphasis on relation of theories to change in law, work, politics, education, economics, family, religion, sexuality, etc. Applications of theories to research questions and methodologies. P/NP or letter grading.

110B. Feminist Theories in the Humanities. (4) Lecture/discussion, three hours. Required: course 10. Examination of theoretical positions on gender and women in study of literature and the arts. Analysis of ways in which women and sexuality have been represented in cultural production, considering impact of race, ethnicity, class, etc. Applications of theories to research questions and methodologies. P/NP or letter grading.

M110C. Philosophical Analysis of Issues in Feminist Theory. (4) (Formerly numbered M119) (Same as Philosophy M119) Lecture, three hours. Enforced requisite for Women's Studies majors: course 10; for other students: permission of instructor. Focus 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. (5) (Same as Film and Television M111) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, star- dom, female genres, and images of women in Hollywood cinema, alternative cinema, and independent cinema from silent era to the present. Letter grading.
112. Special Topics in Women and the Arts. (4) Lecture, three hours. Requisite: course 10. Selected topics related to feminist theories and 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 resistance. Detection of issues related to representation, except for credit toward Women's Studies major. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, and Transgender Studies. (Same as Lesbian, Gay, Bisexual, and Transgender Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbians, 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 Lesbian, Gay, Bisexual, and Transgender Studies M115.) Lecture/discussion, three hours. Requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or natural sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political economy of lesbian, gay, and/or transgender authors, and queer or transgender 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 the 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 the 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. History of sexual and gender minorities in the U.S. Topics include changing norms, romantic comedies, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgenders movement, queer theory and politics. P/NP or letter grading.

M119. Tristan, Isolde, and History of Heterosexuality. (4) (Same as German M104.) Lecture, three hours. German, French, and English versions of Tristan and Isolde story from Middle Ages to the 20th century. Particular attention to relation between representation of heterosexual love in each text and contemporary ideas about European society. P/NP or letter grading.

120. Internship in Women's Studies. (4) Seminar, three hours; internship, eight hours. Preparation: at least two upper division women's studies courses. Requisites: courses 10, 110A or 110B. Field studies course combining seminar with field placement. Practical experience in working on women's issues and connecting these experiences to methodological and theoretical themes explored in course 110A or 110B. Letter grading.

M124. Psychology of Language and Gender. (4) (Formerly numbered M137J.) (Same as Communication Studies M124.) Lecture, four 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 language in children; "women's" and "men's" language in various racial/ethnic/class/gender preference groups; and conversational interaction. Letter grading.

125. Women and Health Care in the U.S. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide health care in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of health care. P/NP or letter grading.

M127. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to "alternative tradition" of women's writing in Russia and the Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. Analysis of Russian literature and its relationship to history and culture. Letter grading.


M132A. Chicana Feminism. (4) (Same as Chicana and Chicano Studies M110.) Lecture, three hours. Requisite: course 10 or Chicana and Chicano Studies 10A. Examination of theories and practices of women who identify as "Chicana feminists." Analysis of writings of Chicanas who do not identify as feminist but whose practices attempt to address gender inequities faced by Chicano/a women. Both within Chicano/a community and dominant society. Attention to Anglo-European and Third World women. P/NP or letter grading.

M132B. Contemporary Issues among Chicanas. (4) (Same as Chicana and Chicano Studies M134.) Lecture, two and one-half hours. Requisite: course 10. Overview of conditions facing Chicanas in the U.S., including issues on family, immigration, reproduction, employment conditions. Comparative analysis with other Latinas. P/NP or letter grading.


M133A-M133B. History of Women in Europe. (4-4) (Same as History M133A-M133B.) Lecture, three hours; discussion, two hours. Requisite: course 10 or Chicana and Chicano Studies 10A. Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from early Middle Ages to the present. P/NP or letter grading.

M133A. 1800 to 1715: M133B. 1715 to the Present.

M133C. History of Prostitution. (4) (Same as History M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient time to the 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 may include novels, primary sources, and testimony by sex workers. P/NP or letter grading.


M135C. Bilingual Writing Workshop. (4) (Formerly numbered M190.) (Same as Chicana and Chicano Studies M135.) Seminar, four hours. Writing sample required on first day of class; access to course Web page mandatory; need not be bi-lingual to enroll. Texts include instruction, analysis, and discussion of bilingual creative expression, with focus on specific genre (i.e., autobiography, poetry, fiction). Emphasis on memory, identity, gender, and sexuality. Center of all bilinguals' struggles; focus on aesthetic and/or literary and pedagogical interests. Peer critique of weekly writing assignments. 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, the 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. 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.


M140. Women's Studies in French Literature. (4) (Same as French M140.) Lecture, three hours. Exploration of a selected aspect of the situation of women in French literature as author, character, symbol, etc. P/NP or letter grading.

M141. Women, Health, and Aging: Policy Issues. (4) (Same as Gerontology M141 and Health Services CM141.) Lecture, three hours; discussion, one hour. Preparation: two upper division social sciences courses, two upper division biological sciences courses. Social and economic context of older women's aging, major physical and psychological changes older women experience, delivery of health services to this population, and policies that respond to their health needs. Letter grading.

M144. Women's Movement in Latin America. (4) (Same as Chicana and Chicano 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 con- sciousness does not emerge out of dominant rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural role socialization. Topics include curricular transformation, feminist pedagogy, gender equity, women faculty members, and intersection of gender and race. Letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/ senior Communication majors. Study of the production of feminized, raced, classed, and gendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups and how these are 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.


M155. Women's Voices: Their Critique of Anthropology of Japan. (4) (Same as Anthropology M155.) Lecture, three hours. Critical analysis of and intellectual and cultural systems. Readings from popular culture, four hours. Examination of manner in which media culture induces people to perceive various dominant and/or colonized groups of people. Ways in which dominant and/or colonized groups of people are represented and presented in media, especially in the context of global media trends. P/NP or letter grading.

M162. Sociology of Gender. (4) (Same as Sociology M162.) Lecture, three hours; discussion, one hour. Requisite: course 10 or Sociology 1. Understanding of ways in which society induces people to perceive various dominant and/or colonized groups of people. Ways in which dominant and/or colonized groups of people are represented and presented in media, especially in the context of global media trends. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Sociology M163.) Lecture, three hours. Requisite: course 10 or Sociology 1. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction. (4) (Same as Sociology 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, surrogacy, and new reproductive technologies. Letter grading.

M164A. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Asian American 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 Filipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

M165. Psychology of Gender. (4) (Same as Psychology M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding of gender. Topics include sex-role development and role conflict, physiological and personality differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M166. Women in Socialist and Post-Socialist States. (4) (Same as Sociology M166.) Lecture, four hours. Examination of diversity of aspects of women's lives in socialist and post-socialist states. Although transition from socialism occurs differently, gender differences are everywhere central to democratization and marketization. Discussion of ways in which state policies affect women. Letter grading.

M167. Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, and Transgender Studies M167 and Women's Studies M167.) Lecture, three hours; discussion, one hour. Exploration of diversity of aspects of sexualities 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) (Formerly numbered 188.) Lecture, four hours. Preparation: satisfaction of Letters and Science Writing II requirement. Requisite: course 10. Designed for juniors/seniors. Overview of feminist economics, with emphasis on development experiences in globalizing world economy. Overview of gender inequities and the role of labor paid and unpaid work, patterns of employment and unemployment, and wage gaps between men and women in different world economic regions; feminist critiques of economics and of theoretical debates within gender and development field on topics such as structural adjustment, feminization of labor force, and poverty; 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. (5) (Formerly numbered M170.) (Same as Comparative Literature 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. May be concur- rently scheduled with course CM270. Undergraduate students read all works in translation. P/NP or letter grading.

M170C. History of Women in China, A.D. 1000 to the Present. (4) (Same as History M170C.) Lecture, three hours. Discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literate culture, feminist movement, and women and communist revolution. P or letter grading.

171. Jurisprudence of Sexual Equality. (4) Lecture, four hours. Requisite: course 110A or 110B or Political Science 10 or Philosophy 6 or 9. Exploration of models of and advocacy of legal theories — equality of opportunity, equality of outcome, equality of respect, etc. — using specific problems of women (e.g., sexual harassment or pregnancy leave policy) for purposes of comparison and critique. Consideration of sexual equality theories to issues of gender equity as they pertain to sexual orientation or gender identity. Study of legal status of women under the law from the perspectives of inter- national human rights. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M172. The Afro-American Woman in the U.S. (4) (Same as Afro-American Studies M172 and Psychology M172.) Lecture, two and one-half hours. Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literate culture, feminist movement, and women and communist revolution. P or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literate culture, feminist movement, and women and communist revolution. P or letter grading.

M174. Sociology of the Family. (4) (Same as Sociology M174.) Lecture, four hours. Theory and research dealing with the modern family, its structure, and functions, including historical changes, variant family patterns, factors as an institution, and influence of contemporaneous society on the family. P/NP or letter grading.

M175. Women and the City. (4) (Formerly numbered M194.) (Same as Urban Planning M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationship between women and cities: (1) how cities have affected women's opportunities for economic and social equality, (2) women's contribu- tions to development of U.S. cities, and (3) contemporary strategies and efforts to create urban environ- ments that reflect women's needs and interests. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM178L.) Laboratory, two hours. Corequisite: course CM178. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

M180B. Historical Perspectives on Gender and Society. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrate- ing how gender enters practices and concepts of sci- ence. Topics include gendered conceptions of nature, persons of “man of science,” role of women in scientifi- cist revolution, scientific investigations of women and feminine. P/NP or letter grading.

185. Special Topics in Women's Studies. (4) Lecture, three hours. Preparation: one prior women's studies course. Designed for juniors/seniors. Special- ized or advanced study in one area within women's studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.


M186A. Global Feminism, 1850 to the Present. (4) (Same as History M186A.) Lecture, three hours; dis- cussion, one hour (when scheduled). Designed for seniors. Introduction to movements for women's rights (educational, political, economic, sexual, and reproductive) and women's movements over one and one-half centuries. P/NP or letter grading.

187. Senior Research Seminar: Women's Studies. (4) (Formerly numbered 197.) Seminar, three hours. Requisites: courses 10, and 110A or 110B or M110C. Designed for advanced junior/senior Women's 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, then share and critique other student works in progress. Letter grading.

195. Internship in Women's Studies. (2 or 4) Tutori- al, eight hours. Requisites: course 110A or 110B or M110C, or two upper division women's studies courses. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M197A. Internship in Women's Studies. (2 or 4) Tutori- al, eight hours. Requisites: course 110A or 110B or M110C, or two upper division women's studies courses. May be repeated for credit with topic or instructor change. P/NP or letter grading.

197A-198B. Honors Research in Women's Studies. (4-4) (Formerly numbered 199HA-199HB.) Tuto- rial, four hours. Requisites: courses 110A or 110B or M110C. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Individual project required. Letter grading.

198A-198B. Honors Research in Women's Studies. (4-4) Tutorial, to be arranged. Preparation: at least two upper division women's studies courses. Topics include themes in feminist discourse, application of feminist theoretical perspectives to dis- ciplinary field, or emerging areas of inquiry. Assigned reading and tangible evidence of mastery of subject matter required. Individual contract required. Letter grading.

Graduate Courses

201. Feminist Knowledge Production: Early/Mod- ern. (4) Lecture/discussion, three hours. Examination of early and modernist feminist theories and episte- mologies in context of global flows of people, ideas, and goods and in diverse socioeconomic settings. Evaluation of varied forms of feminist knowledge pro- duction and critical critiques of theories of mod- ernity. Letter grading.


203. Research Methods in Studies of Women and Gender. (4) Lecture/discussion, three hours. Prep- aration: prior or concurrent enrollment in graduate re- search methods course in discipline or focus area, one or more undergraduate or graduate courses in women's studies. Requisites: courses 201, 202. Top- ics in advanced critique of sexist research methods, models of inclusion of women in research and theory, nonexistist research methods from conception through interpretation, what constitutes "feminist" research, in- clusiveness and attention to diversity issues, appro- priate frameworks in comparative research. Supple- ments disciplinary offerings on research methods. Letter grading.

205. Gender and Politics of Information. (4) Seminar, three hours. Designed for graduate students. Examination of the dimensions embedded in information technologies. Critical feminist assessment of information as resource and commodity; impact of Internet and information technologies on women and gender relations. Examination of the role of women and those who “construct” information technology resources; race, class, gender relations in cyberspace and electronic communications. Letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate students. Studies in international movements and current debates over public policy directly affecting women in one or more major spheres of public life, e.g., work, family, political system, health care, legal regulation. Topics may focus on public health, political science, medicine, workplace studies, and social welfare. May be repeated for credit with topic or instructor change. Letter grading.

215. Topics in Study of Sexuality and Gender. (4) Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of sexual orientation, gender identity, queer and transgender theory, including research on minority sexuality, and social construction/deconstruction of gender. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexuality. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in literature and performance culture, with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing femiqueer as diasporic or multicultural for artistic cultural production across national borders. Students. In-depth study of representations of gender and social construction/deconstruction of gender, theories, problems, and techniques. May be concurrently scheduled with course M170. Graduate students required to prepare papers based on texts read in original languages whenever possible. S/U or letter grading.

M238. Feminist Theory. (4) (Same as Sociology M238.) Lecture, two hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “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.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Sociology M255.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in the 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 repeatable with 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 ethnography of gender and sexuality, (de)construction 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 case studies from recent literature. S/U or letter grading.

CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Comparative Literature CM270.) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Investigation of narrative texts by contemporary French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspective. Common theories, problems, and techniques. May be concurrently scheduled with course CM170. Graduate students required to prepare papers based on texts read in original languages whenever possible. S/U or letter grading.

CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278.) Seminar, three hours. 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.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

495. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Women’s Studies Program. 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 women’s studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203. Directed individual research and study in area related to women’s studies/gender studies, arranged individually by student with instructor. May be repeated for credit. S/U or letter grading.

597. Preparation for M.A. Comprehensive Examination or Ph.D. Qualifying Examinations. (2 to 12) Tutorial, eight hours. Limited to graduate women’s 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.


Related Courses
Check with the program office for additional course listings.

Anthropology
137. Selected Topics in Cultural Anthropology: Food and Culture; Sexual Meanings; Maternity and Kinship Challenges in the 21st Century
163. Selected Topics in Applied Anthropology (Gender and Development)

Asian American Studies
115. Asian American Women

Classics
150A. Female in Greek Literature and Culture
150B. Female in Roman Literature and Culture

Communication Studies
191C. Variable Topics in Communication Studies: Media Content/Criticism and History — Media, Gender, and Ethnicity

Community Health Sciences
226. Women’s Health and Well-Being
230. Family and Sexual Violence
246. Women’s Roles and Family Health
248. Women’s Mental Health
433. Reproductive Health: Demographic Applications
434A. Maternal and Child Health in Developing Areas
345. Seminar: Advanced Issues in Women’s Health

Comparative Literature
CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature
CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature

271. Imaginary Women

English
177. Special Topics in American Literature (selected)
180. Specialized Studies in Literature (selected)

Geography
142. Political Geography

German ( Germanc Languages)
118. Feminist Issues in German Literature and Culture

Health Services
M110. Ethnic, Cultural, and Gender Issues in America’s Health Care Systems
CM241. Women, Health, and Aging: Policy Issues

History
191A-191O. Undergraduate Seminars (selected)

Music History
M137. Gay and Lesbian Perspectives in Pop Music

Political Science
149. Special Topics in American Government and Politics (selected)

Psychology
129E. Human Sexuality
231. Psychology of Gender

Sociology
285. Special Topics in Sociology: Sociology of Gender

Spanish (Spanish and Portuguese)
151A. Women in Hispanic Literature: Spain
151B. Women in Hispanic Literature: Spanish American

Urban Planning
247. Race, Gender, Culture, and Cities
285. Women and Community Development: Great Gender Debates
World Arts and Cultures

100A. Art as Social Action
100B. Art as Moral Action

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Susan L. Foster, Ph.D.
Michael O. Jones, Ph.D.
Victoria E. Marks, B.A.
Judy M. Mitoma, M.A.
Peter Nabokov, Ph.D.
Alien F. Roberts, Ph.D.
David J. Roussevè, B.A.
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Pia S. Gilbert
Carol J. Scothorn, M.A.
Marion Scott
Doris Siegel
Allegria Fuller Snyder, M.A.
Emma Lewis Thomas, Ph.D.

Associate Professors
David H. Gere, Ph.D.
Angelia Leung, M.A., C.M.A.
Collin H. Quigley, Ph.D.

Assistant Professor
Cheng-Chieh Yu, M.F.A.

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Yasvir Flores-Peria, Ph.D.
Maria S. Gillespie, B.F.A.
Christopher Johnson, B.A.
Kevin M. Kane, M.F.A.
Shyamaa Moorty, M.F.A.
Kerry Noonan, Ph.D.
Richard Ogins, M.F.A.
Patrick Pilk, Ph.D.
Shel Wagner Rasch

Adjunct Professors
Anikica Petrovic, Ph.D.
Mary Nooter Roberts, Ph.D.

Adjunct Associate Professors
John M. Bishop, B.A.
Peter Tokofsky, Ph.D.

Adjunct Assistant Professors
Lynn M. Dally, M.A.
Liliana de Leon-Torsiello, M.A.
Simone Forti, B.F.A.
Dan Z. Froot, M.F.A.
Viji Prakash

Visiting Assistant Professor
Rennie Harris
Guillermo Gomez-Peña
Robert Sember, Ph.D.
Amy R. Shimshon-Santo, Ph.D.

Scope and Objectives
Guided by an interdisciplinary faculty of artists, arts scholars, and ethnographers, the academic programs in the Department of World Arts and Cultures (WAC) are organized around three fundamental missions: (1) the formulation of critical and intercultural insights into the nature of human creativity, (2) the creation 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 a set of intellectual and artistic problems rather than an established academic discipline. The programs of teaching, research, and performance are unified around a shared concern with problems of cultural identity and differences, the meaning of tradition in contemporary societies, the forging of connections between critical theory and artistic practices, and the changing social roles and responsibilities of artists and scholars of the arts, both in the U.S. and worldwide.

The undergraduate program offers concentrations in dance and cultural studies. The graduate program offers Master of Arts and Ph.D. degrees in Culture and Performance and a Master of Fine Arts in Dance. Students are encouraged to explore relationships among the different curricular emphases, including world arts practices, cultural studies, dance studies, and folklore, as a means to tailor a particular course of study to their professional goals.

Students in the World Arts and Cultures Department at UCLA study with faculty members of international standing engaged in both creative artistic work and research. Students from this unique department have gone on to pursue advanced degrees and/or careers in arts management, education, cultural policy, community outreach, architecture and urban planning, law, and various academic disciplines within the arts, humanities, and social sciences, as well as in the professional fields of dance.

Undergraduate Study
World Arts and Cultures

World Arts and Cultures major leads to the Bachelor of Arts degree and is designed to offer choice and flexibility while maintaining balance and rigor. At the outset, students select one of two concentrations: dance or cultural studies. All students take a set of core courses designed to explore a wide range of artistic practices in cultural context. In addition, it is recommended that students selecting the dance concentration study movement techniques of their choice four to five days a week for the first two years of the program, while those concentrating in cultural studies must select 12 units of arts practice electives in movement, music, theater, film, design, or visual art — either within or outside the department.

In Spring Quarter of their junior year, students enroll in World Arts and Cultures 185, where they propose one of two paths of study for the senior year: (1) senior focus in world arts and cultures, a subdiscipline concentration cluster of two courses (8 to 10 upper division units) from within or outside the department that should offer a range of perspectives on some aspect of performance and/or culture or (2) senior honors projects in world arts and cultures (courses 186A, 186B), outlining a proposed topic of research and a research agenda that can take a wide variety of forms such as an academic paper, a documentary video, or a choreographed performance and should demonstrate originality of vision and technical mastery of the form in which the project is presented.

The dance concentration is grounded in contemporary choreography and offers courses in a wide range of idioms from throughout the world, including special emphasis on modern/postmodern dance. Opportunities for performance, production, videography, and movement studies are augmented by courses in the study of the body and of bodily identity from historical and cultural perspectives, dance theory, and dance in the public sphere, including arts pedagogy. Multimedia forms of expression integrating music, theater, visual arts, film, and other technologies along with hybrid forms of cultural expression utilizing both emerging and classically based vocabularies are encouraged.

The cultural studies concentration provides students with an introduction to key issues, problems, and debates in the study of art and creativity in cultural context. Beyond the required set of core courses, students select from a range of courses offered in the World Arts and Cultures Department and in other departments. Students may also consider 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, area specializations such as Africa, Asia, or Latin America, minority discourse, gender or women’s studies).

Students who wish to confer with the departmental student affairs officers regarding program planning and major requirements should contact Wendy Temple at (310) 825-8537 or Sandra McKerroll at (310) 206-5467.
search paper, transcripts, two letters of recommendation, and two personal essays. These 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 interested in the dance concentration must participate in a February audition.

Current UCLA students who petition to change their major are required to meet with one of the student affairs officers prior to application. They are advised to take world arts and cultures courses during the term in which they apply to the program. They must have a minimum 2.0 overall grade-point average and no more than 120 quarter units. Students interested in the cultural studies concentration may apply at the beginning of Fall, Winter, and Spring Quarters. Those interested in the dance concentration may apply at the beginning of Fall and Spring Quarters and are expected to participate in an audition.

The Major
The major consists of 93 to 95 units of coursework for the dance concentration and 85 to 87 units for the cultural studies concentration, including either the 10-unit senior honors project or the two-course 8- to 10-unit upper division senior focus.

Required: A core of 10 courses (32 units): World Arts and Cultures 1, 2 (taken twice), 3, 70, 85, 100A or 100B, 101, 102, 103.

Twelve units of coursework in culture/performance studies are also required, selected from World Arts and Cultures C109A through C183 and C199, or outside the department subject to consent of the faculty advisor.

In addition, the following courses are required:

Cultural Studies Concentration: Twelve units of arts practice electives selected from World Arts and Cultures 5 through 15 and 55 through 69 or from courses offered by other departments subject to consent of the faculty advisor; courses 20, 121; and 12 units selected from courses 120 through C142.

Dance Concentration: World Arts and Cultures 16, 45, 67, 69; 14 units of movement techniques selected from courses 5 through 15 and 55 through 69 or from courses offered by other departments subject to consent of the faculty advisor; courses 20, 121; and 12 units selected from courses 120 through C142.

World Arts and Cultures 185 is required, as well as either (1) courses 186A and 186B (senior honors project) or (2) senior focus in world arts and cultures, as follows:

The senior honors project (courses 186A, 186B) leads to a project that has three possible areas of focus — performance, applied research, or cultural studies research: (1) the performance project is a creative project leading to the production and public performance of original or traditional work; (2) the applied research focus implies an application of knowledge in a hands-on situation and includes projects in and with the community or campus; (3) the cultural studies focus involves students in independent ethnographic research in some aspect of the arts.

The senior focus consists of two related upper division courses (8 to 10 units) from within or outside the department. An area of study is selected in consultation with a faculty adviser and represents an area of performance or cultural studies in which students desire to develop a subdiscipline concentration.

Graduate Study
Official, specific degree requirements are detailed in Program Requirements for UCLA Graduate Degrees, available at the Graduate Division website, http://www.gdnnet.ucla.edu. 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.

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. (4) Seminar, three hours. In-depth investigations of variable topics, including body in cultural context, music and soundscapes, material culture, visual imagery, oral genres, and realm of spirit, as well as other subjects pertaining to broader discipline of world arts and cultures. Substantial culminating project required. May be repeated for credit without limitation. Letter grading.

3. World Arts Forum. (1) Lecture, 90 minutes. Introduction to major issues in discipline of world arts and cultures as well as various arts resources on campus. Presentations by faculty, curators, artistic directors, performers, scholars, national leaders in the arts, international guests. Specific presentations vary from term to term. May be repeated for maximum of 4 units. P/NP 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, crosscultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

6. Beginning World Arts Practices in Sub-Saharan Africa and Diaspora. (2) 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 the 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.

7. Beginning World Arts Practices in Middle East/ North Africa and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from the 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.

8. Beginning World Arts Practices in Latin America and Diaspora. (2) 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 folkloric dances, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

9. Beginning World Arts Practices in North America and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from North America, including the U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

10. Beginning World Arts Practices in East Asia and Diaspora. (2) Studio, three hours. Beginning-level study of world arts practices originating from East Asia, including China, Korea, and Japan. Variable topics, such as movement and music techniques of Beijing Opera, Korean shamanic movement practices, and Kabuki theater, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

11. Beginning World Arts Practices in South Asia and Diaspora. (2) 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 England and West Africa. Variable topics, such as Bharata Natyam (classical dance of India), bhangra (diasporic social dance), 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. (2) 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. (2) Studio, three hours. Beginning-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the 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.

15. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of dance technique, critical viewing, reading, and discussion of modern/postmodern dance artists’ works. May be repeated twice for credit. P/NP or letter grading.

16. Beginning Improvisation in Dance. (2) 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 once for credit. P/NP or letter grading.
20. Introduction to Cultural Studies. (4) Lecture, three hours. Limited to World Arts and Cultures majors. Introduction to cultural studies and major theoretical and methodological debates that characterize field of cultural studies, including discussion of notions of culture, popular culture, subculture, youth culture, hegemony, gender, race, class, and national identity. Letter grading.

22. Introduction to American Folklore Studies. (5) (Formerly numbered M22.) Lecture, four hours; discussion, one hour; outside study, 10 hours. Cultural/historical survey of folklore in development of American civilization and of influence of the American experience in shaping folklore in 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-Columbian period, with particular emphasis on cultural diversity and cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

26. Frida Kahlo: Creation of Cultural Icon. (5) Lecture, three hours; discussion, one hour. Examination of life of renowned Mexican artist Frida Kahlo in light of (1) Mexico's political, religious, and social history that gave rise to mestizaje and machismo, (2) the social conditions that strongly influenced her self-portrayal and gender identity, as well as her revolutionary political ideals, (3) obstacles that 20th-century female artists and artists working in bigger and (4) transformation of artwork she produced, (5) the way her significant attachments influenced her construction of subjective sense of self and kinds of artwork she produced. P/NP or letter grading.

45. Introduction to Dance Studies. (4) Lecture, three hours. Introduction to discipline of dance studies, with focus on study of dance as key contemporary perspective on the body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to gender, race, class, and national identity. P/NP or letter grading.

46. Survey of Dancing in Selected Cultures. (2) Studio, three hours. Introduction to dances and their movement characteristics in global context. P/NP or letter grading.

55. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside study, three hours. Intermediate-level study of world arts practices originating from Latin America and Diaspora, including communities in Europe and Africa. Variable topics, such as Bharata Natyam (classical dance of India), bhangra (diASPorean social dance, and haitian dance). May be repeated for credit without limitation. P/NP or letter grading.

58. Intermediate World Arts Practices in Latin America and Diaspora. (2) Studio, three hours; outside study, three hours. Intermediate-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 folkloric dances, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

59. Intermediate World Arts Practices in North America and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from North America, including the U.S., Canada, and Native America. Variable topics, such as Native American dance, jazz, and jazz-tap, in cultural and historical context. May be repeated for credit without limitation. P/NP or letter grading.

60. Intermediate World Arts Practices in Asia. (2) Studio, three hours. Intermediate-level study of world arts practices originating from Hindu and Buddhist cultural traditions, in cultural and historical context. Variable topics, such as hinduism, hindustani music, body art, and classical dance. May be repeated for credit without limitation. P/NP or letter grading.

61. Intermediate World Arts Practices in South Asia and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from South Asia or from cultures of South Asian diasporas, including communities in England and West Africa. Variable topics, such as Kathakali (classical dance of India), bhangra (diASPorean social dance), and haitian dance. May be repeated for credit without limitation. P/NP or letter grading.

62. Intermediate World Arts Practices in Southeast Asia and Diaspora. (2) Studio, three hours. Intermediate-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.

63. Intermediate World Arts Practices in Europe and Diaspora. (2) Studio, three hours. Intermediate-level study of world arts practices originating from Europe and extending to cultures of European diaspora, including the 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.

64. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Technical training with emphasis on increasing skill. May be repeated twice for credit. P/NP or letter grading.

65. Introduction to Dance Composition. (4) Lecture, four hours; rehearsal, four hours; outside study, four hours. Study of techniques for inventing/discovering and arranging and making movements for dances. Cultivation of ability to apply principles guiding selection and combination of movements. May be repeated twice for credit. P/NP or letter grading.

66. Introduction to Intercultural Composition. (4) Lecture, four hours; outside study, four hours. Study of how choreography makes meaning in specific cultural contexts and how choreographers from diverse dance traditions have worked to expand and develop those traditions. May be repeated twice for credit. P/NP or letter grading.

70. Production. (1) Laboratory, three hours. Introduction to practical perspectives on producing events in world arts and cultures, including but not limited to theatrical and film production. P/NP or letter grading.

71. Private Instruction in World Arts and Cultures. (2 to 4) (Formerly numbered 86.) Studio, three to six hours. Private or semiprivate instruction in a 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 or letter grading.

72. Bachelor of Arts Concentration Proposal. (1) (Formerly numbered 90.) Lecture, 90 minutes. Planning and execution of proposal for junior year of study, with attention to exploring resources of department and University as a whole. P/NP or letter grading.

Upper Division Courses

100A. Art as Social Action. (4) Lecture, four hours. Designed for juniors/seniors. Focus on use of art to explore social injustices and empowerment of communities. May be repeated for credit without limitation. P/NP or letter grading.

100B. Art as Moral Action. (4) Lecture, four hours. Designed for juniors/seniors. Focus on use of art to explore moral injustices and empowerment of communities. May be repeated for credit without limitation. P/NP or letter grading.

101. Theories of Performance. (4) Lecture, three hours. Requisite: course 85. Introduction to range of contemporary critical theories applicable to analysis of performance, including gaze theory, postcolonial theory, queer theory, and intercultural theory. P/NP or letter grading.

102. Seminar: Intercultural and Interdisciplinary Performance. (4) Seminar, four hours. Requisite: course 101. Recent discussions of multiculturalism have challenged the ways in which the academy engages with the world, and 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, collective performance, hybridization, and possibilities of video and extended media. P/NP or letter grading.

103. Arts in the Community. (4) Lecture, four hours. Requisite: course 85. Following up on discussions of impoverishment of theatrical performance, many artists and scholars have turned attention to full engagement with communities in which they live. Investigation of practical application of those engagement strategies, culminating in pilot community project. Letter grading.

C109A. Advanced World Arts Practices in North America and Diaspora. (2) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including U.S., Canada, and Native America. 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 C409A. P/NP or letter grading.

110B. Dance in East Asia. (4) Lecture, four hours. Survey of dances of Japan, China, and Korea and factors that have influenced their development and social function. Consideration of dance as metaphor of display to other art forms. Lectures illustrated with demonstrations, films, and slides. P/NP or letter grading.


C113A. Advanced World Arts Practices in Europe and Diaspora. (2) 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 C413A. P/NP or letter grading.

114. Performance Practicum. (1 to 4) (Formerly numbered 194.) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theatrical work. May be repeated for credit without limitation. P/NP grading.
C115. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Requires: 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 C140. P/NP or letter grading.

116. Advanced Improvisation in Dance. (2) Studio, four hours. Development of aesthetic perspective through use of imagery, sound, and other art. Concentration and projection. May be repeated twice. P/NP or letter grading.

117. Advanced Topics in Choreography. (4) Lecture, three hours; studio, two hours. Requisites: courses 16 and 67 or 69. Directed exploration in composition, with focus on developing theme-based choreographic works that are informed by theoretical engagement with selected topic through lectures, readings, and discussions. Thematic topics include contemporary issues and concerns such as image, essence, and abstraction; home, identity, and memory; interculturalism; constructing identity. May be repeated for credit without limitation. P/NP or letter grading.

118. Advanced Interdisciplinary Composition. (4) Lecture, four hours; studio, two hours. Requisites: courses 16 and 67 or 69. 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) Lecture, four hours; studio, two hours. Requisites: courses 16 and 67 or 69. 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.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed for juniors/seniors. Selected topics in interdisciplinary study of arts and performance in cultural and historical context. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit without limitation. P/NP or letter grading.

121. Ethnography of Performance. (4) (Formerly numbered 121.) Lecture, two hours; discussion, two hours; outside study, eight hours. Development of observation and recording skills for study of performance events, including both analytical consideration of selected ethnographies and training in and application of field research methodologies. P/NP or letter grading.

122. Introduction to Folklore. (4) (Formerly numbered M122.) Lecture, four hours. Survey of various forms of folklore and approaches to their identification, description, and analysis, including their historical and social significance. Introduction to expressive behavior of folk groups from throughout the 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.

C123. Arts of Identity: Survey of Expressive Cultures. (4) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in cultural context. Special attention to relationship between arts and identity and to role of artists in cultural survival and transformation. Concurrently scheduled with course C223. P/NP or letter grading.

M124. Language and Culture of Art. (4) (Same as Anthropology M148A.) Lecture, three hours. Requisite: Anthropology 9 or 33. Introduction to study of oral art and nonverbal art in societies. Focus on art as a performance, dance, painting, photography, film through analytical lenses of linguistic and cultural anthropology. Starting from assumption that understandings of art can influence the very nature of social life, students will be introduced to a variety of theoretical perspectives such as structuralism, postcolonial theory, feminist theory, and cultural studies. Students will be trained to document art products and practices using traditional ethnographic methods and multimedia technologies, and will analyze examples and contribute to theoretical understanding of finds through hands-on art-making, fieldwork, and interviews. P/NP or letter grading.

M125A. Beyond the Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Architecture M126A.) Studio/Lecture, six hours. Corequisite: course M125AL. 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 a community. Students research, design, and work with community participants. P/NP or letter grading.

M125AL-M125BL-M125CL. Beyond the Mexican Mural: Muralism and Community Development. (2-2-2) (Same as Art M168AL-M168BL-M168CL and Chicano and Chicano Studies M186AL-M186BL-M186CL.) Laboratory course M125AL is requisite to M125BL, which is requisite to M125CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based settings. Open to students during scheduled hours with laboratory staff’s support, it offers instruction as students independently and in collaborative teams research, design and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. Beginning: M125BL; Intermediate: M125CL; Advanced: M125AL.

M125B. Beyond the Mexican Mural: Intermediate Muralism and Community Development. (4) (Same as Art M186B and Chicano and Chicano Studies M186B.) Studio/Lecture, six hours. Requisites: courses M125A, M125AL. Corequisite: course M125BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M125C. Beyond the Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Art M186C and Chicano and Chicano Studies M186C.) Studio/Lecture, six hours. Requisites: courses M125B, M125BL. 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 states of production to full scale and community approval. P/NP or letter grading.

M126. Whose Monument Where: Course on Public Art. (4) (Same as Art M185 and Chicano and Chicano Studies M185.) Lecture, four hours. Requisite: course M125A or M125B or M125C. Examination of public monuments in the U.S. as a built and built environment that is created and used by members of small-“scale,” traditional, and “transitional” communities around the world. P/NP or letter grading.

M130. Living Vernacular. (4) (Formerly numbered M130.) Lecture, four hours. Designed for juniors/seniors. General course concerned with folk art, aesthetics, and material culture and with theoretical concepts and methodologies utilized in their analysis. P/NP or letter grading.

132. Narrative and Oral Performance. (4) (Formerly numbered M132.) Lecture, four hours. Survey of concepts of story as text versus narrating as oral performance. Focus on ritual narrative, folktales, and magical storytelling. Stories are composed in performance, interaction of narrator 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.

133. Textiles of the World. (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.


135. African Popular Arts. (4) Lecture, three hours. Introduction to problems and issues in study of popular arts in sub-Saharan Africa. Lectures, readings, and audiovisual 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, housepainting, personal adornment, and joke telling. P/NP or letter grading.

C139. Afro-Caribbean Ritual Arts: Vodou and Santeria. (4) (Formerly numbered CM139.) Lecture, three hours. Designed for juniors/seniors. Ethnography of diaspora African religions, including Vodou, Santeria, and Candomble. Lectures, readings, and audiovisual material focus on performance of ritual and its expression in religious art. Concurrently scheduled with course C239. P/NP or letter grading.

CM140. Women Healers, Ritual, and Transformation. (4) (Formerly numbered CM143.) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Examination of role of women healers, historically and within contemporary cultural contexts. Lectures, readings, and audiovisual material focus on performance of ritual and its expression in religious art. Concurrently scheduled with course CM240. P/NP or letter grading.
C141. Carnival and Festivity. (4) (Formerly numbered CM141.) 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 the carnivalesque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.

C142. Myth, Magic, and Mind. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Consideration of metaphor and symbol, reflexive anthropology, and notion of culture as text applied to such examples as trickster figures, rhetorical devices including parable and irony, and arguably magical experience of humans “shape-shifting” to become animals. Concurrently scheduled with course C242. P/NP or letter grading.

143A. Introduction to Museology: Museum Collections and Administration. (5) (Formerly numbered 185A.) Lecture, six hours. Introduction to history and functions of museums, tracing development to the present. Collection, organization, management, and conservation of objects and legal and ethical issues surrounding these practices. P/NP or letter grading.

143B. Introduction to Museology: Museum Exhibitions and Education. (5) (Formerly numbered 185B.) Lecture, six hours; studio, two hours. Conceptual development of exhibitions and formula- tion of educational and other goals for specified audi- ences. Design considerations, media applications, and installation process. P/NP or letter grading.

143C. Introduction to Museology: Selected Top- ics. (4) (Formerly numbered 185C.) Discussion, six hours; individual study, six hours. Requisites: courses 143A, 143B. Students pursue projects in area of museum operations, working with staff members and museum directors to produce papers on contemporary issues in museums. For example, one student might work under curator and director to examine cultural property issues as they pertain to contemporary museums, following suggested reading list. P/NP or letter grading.

144. Make Art/Stop AIDS. (4) Lecture, four hours. How can artists participate in global movement to stop spread of HIV/AIDS? Arts, working in close con- nection with public health and epidemiology, are ef- fective tool in AIDS prevention and treatment efforts. Review of literature of AIDS cultural analysis that emerged in late 1980s in relation to gay men in the U.S. and expansion of reach of that literature to Brazil. Historicizing of cultural activism engen- dered by arts in relation to epidemic in the U.S. to under- stand how arts can function to save lives around world. Volunteering with AIDS organization in Los An- geles for approximately 20 hours and series of in- class theory-in-action projects included. P/NP or letter grading.

C145. Selected Topics in Dance Studies. (2 to 4) Lecture, four hours; outside study, eight hours. Des- signed for juniors/seniors. Selected topics in study of dance and corporeality. Consult Schedule of Classes for topics to be offered in specific term. May be re- peated for credit without limitation. Concurrently scheduled with course C245. P/NP or letter grading.

C146. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for jun- iors/seniors. Open to anyone interested in artists and intel- lectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key- words as ideology, aesthetics, theory, art, politics, in- tervention, intellectuals, and artists. Concurrently scheduled with course C246. P/NP or letter grading.

C148. Dance as Healing and Therapy. (4) Lecture, two hours; laboratory, two hours; outside study/re- sear- ch, eight hours. Introduction to historical, theoretical, methodological, and ethical considerations involved in practice of dance as healing and therapy. Concurrently sched- uled with course C248. Letter grading.

149. Dance in the Multicultural U.S. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Designed for juniors/seniors. Study of dance perfor- mance in the U.S., with emphasis on genres that can be viewed in historical and cultural context, from concert modern/postmodern dance, Mexican folklorico, and Japanese butoh to popular idioms and video dance. Attention to genres from Native America, Americas, Oceania, Asia, Africa, and Europe. Student projects involve creation of in-class performances. P/NP or let- ter grading.

150. History of Dance in Culture and Perform- ance. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Study of dance in historical and cultural context, its function in society and its relation- ship to contemporary artistic expression. Focus on topics from traditional and recent research in world dance. P/NP or letter grading.

C152. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; out- side study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies, with tracing of radical shift to postmodern dance that occurred in the mid- 20th century. Contemporary developments, both his- torical and theoretical. Student projects involve choreo- graphy and writing. Concurrently scheduled with course C252. P/NP or letter grading.

C154. Dance and Folklore. (4) (Formerly numbered CM154.) Lecture, four hours. Consideration of vernac- ular tradition as a site for cultural configuration, social construction, representation, and display of national, ethnic, and other affinity identities. Emphasis on vari- ous European and European-American dance idioms. Concurrently scheduled with course C254. P/NP or letter grading.

C155. Self and Culture. (4) Lecture, two hours; labora- tory, two hours; outside study, eight hours. Des- signed for juniors/seniors. Examination of critical de- velopmental processes and situational factors con- tributing to construction of sense of self and emergence of creativity and subjective relatedness in different cultural contexts. Concurrently scheduled with course C255.

158. Choreographing Gender. (4) Lecture, three hours; laboratory, two hours. Designed for juniors/se- niors. Analysis of aesthetic codes and theatrical choro- graphies to be publicly performed. P/NP or letter grading.

159. Movement Theories. (2) Lecture, two hours; laboratory, two hours. Study of motor coordination patterns 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.

160. Topics in Body Mechanics. (4) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Variable topics course with discussion of injury pre- vention, anatomy for dancers, and study of biological and physical principles of human movement as relat- ed to dance. May be repeated for credit without limita- tion. P/NP or letter grading.

161. Movement Observation and Analysis. (4) Lecture, two hours; laboratory, two hours. Designed for juniors/seniors. Use of variable theoretical frame- works and techniques such as labanotation to em- phasize culturally defined processes of observing, analyzing, and describing human movement. P/NP or letter grading.

C164. Public Writing in the Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalis- tic approaches to writing about the arts, with eye to- ward strong critique of methods and putting that critique into practice. Exploration of new modes of (and venues for) writing that rebalance pow- er differential between art makers and commentators. Concurrently scheduled with course C264. P/NP or letter grading.

165. Foundations of Dance Education. (4) Lecture, two hours; laboratory, three hours. Introduction to movement concepts, skills, and teaching principles for modern/postmodern dance instruction. Super- vised teaching practicum included. P/NP or letter grading.

166. Dance as Culture in Education. (4) Lecture, two hours; laboratory, two hours. Theoretical and practical aspects of teaching ethnic dance, especially in higher education. P/NP or letter grading.

167. Creative Dance for Children. (4) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children’s dance; emphasis on dance as creative medium of ex- pression. P/NP or letter grading.

C168. Beyond Academia: Making Art in the Real World. (4) Lecture, four hours; studio, two hours; outside study, eight hours. Designed for juniors/seniors. Focus on understand- ing bureaucratic structures and regional histo- ries conditioning creation of art in the real world, in- cluding such practical issues as publicity and grant- writing. Concurrently scheduled with course C268. P/NP or letter grading.

C169. Repertory Tour Ensemble. (2 or 4) (Formerly 192.) Lecture, two hours; studio, four to six hours. Designed for World Arts and Cultures majors. Creation and presentation of performances in com- munity, with special emphasis on problems of touring companies with variable repertoire. May be repeated once. P/NP or letter grading.

170. Advanced Production. (1) Laboratory, three hours. Requisite: course 70. Further development and application of technical and administrative sup- port practices in producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series. May be re- peated for credit without limitation. P/NP grading.

171. Lighting Design for Dance Theater. (4) Lec- ture, four hours; laboratory, two hours. Lighting for dance: examination of aesthetics, principles, and technical elements. Application to selected choreog- raphies to be publicly performed. P/NP or letter grad- ing.


C173. Sound Resources for Performance. (4) Lec- ture, three hours; studio, one hour; outside study, eight hours. Designed for juniors/seniors. Exploration of music, in search of the interesting, new, and unusu- al. 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). Particip- ants collaborate with faculty/peers in creativity ef- forts and in presentations of research results. Con- currently scheduled with course C273. P/NP or letter grading.

174. Projects in World Arts and Cultures. (2 to 4) (Formerly numbered 192.) Lecture, four hours; studio, four to six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. 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 taken for a maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Proseminar: Study 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 cultural elucidation of study of culture. S/U or letter grading.

201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of performance and related aesthetic practices. Familiarization with ways in which “performance” is defined and deployed by scholars working in disciplines of anthropology, dance, film, linguistic studies, literature, musicology, performance studies, philosophy, sociology, and theater. S/U or letter grading.

202. Ethnography of Performance. (4) Seminar, three hours; outside study, nine hours. Survey of methods and issues in ethnographic study of performance in cultural context. Field documentation, participant observation, oral history and interview techniques, participatory dimensions of ethnographic research, ethics, and politics of ethnographic representation. 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. The Body. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on the human body. Topics include representations of the 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 techniques in contemporary folklore and non-fictional ethnography.

206. Folklore Seminar. (4) Seminar, three hours; outside study, nine hours. Variable topics in interdisciplinarity concerning ownership and use of word “culture” and critical elucidation of study of culture. S/U or letter grading.

211A-211F. Advanced Choreography. (4 each) Lecture, two hours; laboratory, two hours. Theoretical and practical perspectives of dance techniques and paradigms. Use of words to analyze and perform narrative dance, impact of audience and “situated event” on both narrating and the “story;” how experiences and values are communicated through narratives.

216. Analyzing Narrative and Oral Performance. (5) (Formerly numbered M216.) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and interpreting their perceptions and experiences as text, and performing narrative discourse, impact of audience and “situated event” on both narrating and the “story;” how experiences and values are communicated through narratives.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, eight hours. Designed for graduate students. Topics vary in interdisciplinary study of expressive 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 Expressive Cultures. (4) Lecture, four hours; outside study, eight hours. Introduction to study of arts, performance, and creativity in culture and communities. Focus on relationship between arts and identity and to role of artists in cultural survival and transformation. Concurrently scheduled with course C212. S/U or letter grading.

225A-225J. Theories of Movement: Labananalysis. (4) Lecture, two hours; laboratory, two hours. Theories of Laban movement analysis as means for analyzing and describing human movement. Use of Laban movement analysis to increase movement observation skills and theoretical understanding of role of movement in dance, nonverbal behavior, and cross-cultural dance studies. Focus on complex movement patterns and timing. S/U or letter grading.

229. Food Customs and Symbolism. (4) (Formerly numbered CM229.) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sensory realms, food preparation techniques, food sharing, food and identity, food and its emotional significance, aversions and taboos, advertising, changing food habits, and the American diet. Concurrently scheduled with course C129. S/U or letter grading.


240. Women, Healers, Ritual, and Transformation. (4) (Same as Women’s Studies CM243.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of role of women healers and religious practitioners in global culture, with particular attention on kinship and cross-cultural dance studies. Focus on complex movement patterns and timing. S/U or letter grading.

241. Carnival and Festivity. (4) (Formerly numbered CM241.) 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 the carnivalesque and politics of memory. Concurrently scheduled with course C141. S/U or letter grading.

242. Myth, Magic, and Mind. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Consideration of metaphor and symbol, referencing anthropological, sociological, and psychological applications. Concepts applied to such examples as trickster figures, rhetorical devices including parable and irony, and arguably magical experience of humans “shape-shifting” to become animals. Concurrently scheduled with course C142. S/U or letter grading.

243. Production Arts Seminar. (4) (Formerly numbered 243C.) Seminar, four hours; laboratory, to be arranged. Introduces students to production aspects of arts production, including arts organizations, funding sources, legal aspects of arts production, support groups, public relations and publicity. Letter grading.
C244. Folk Medicine. (4) Seminar, three hours; outside study, nine hours. Exploration of fundamental concepts, analysis of folk/tribal knowledge, and research questions in relation to 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 health care. S/U or letter grading.

C245. Selected Topics in Dance Studies. (2 to 4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Consult Schedule of Class- es for topics to be offered in specific term. May be repeated for credit without limitation. Concurrently scheduled with course C145. S/U or letter grading.

C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C248. Dance as Healing and Therapy. (4) Lecture, two hours; outside study/re- search, eight hours. Designed for graduate students. Introduction to historical, theoretical, methodological, and ethical approaches involved in practice of dance as healing and therapy. Concurrently scheduled with course C148. Letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in the mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C254. Dance and Folklore. (4) (Formerly numbered CM254.) Lecture, four hours. Consideration of vernacular tradition as a site for cultural configuration, social construction, representation, and display of national, ethnic, and other affinity identities. Emphasis on various European and African-American dance idioms. Concurrently scheduled with course C154. S/U or letter grading.

C255. Self and Culture. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Designed for graduate students. Examination of critical developmental processes and situational factors contributing to construction of sense of self and emergence of creativity and subjective relatedness in different cultural contexts. Concurrently scheduled with course C155. S/U or letter grading.

C264. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in the mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C270. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for graduate students. Exploration of music research, recording, and music library resources. Investigation of musical possibilities via record store, Internet, and music library; environmen- tal sounds and patterns; body (clapping, stepping, and singing); and found sound (found sound). Participants collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C173. S/U or letter grading.

C275. Applied Folklore. (4) (Formerly numbered CM275.) Lecture, four hours. Designed for graduate students. Introduction to methods and issues in applica- tion of folklore studies to such areas as education, health, museums, organization development, tourism, environmental planning, economic and community de- velopment, aging, art therapy, and public sector dil- life. Concurrently scheduled with course C175. S/U or letter grading.

C280. Video Production in Arts. (4) Lecture, one hour; laboratory, three hours. Fundamentals of video production: conceptualization, field recording (cam- era, lighting, sound recording/editing (organizing raw footage, constructing a program, mastering finished tape). Emphasis alternates quarterly between ethnographic documentary and dance/choreo- graphy. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

C283. Film and Folklore. (4) (Formerly numbered CM283.) Lecture, three hours. Designed for graduate students. Introduction to film criticism and folklore methodology. Topics include early examples of folk- lore on film, changing conceptions of folklore and uses of films about folklore, and examples of films by, with, and for folklorists. Concurrently scheduled with course C183. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personal employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of a regular faculty member responsible for curriculum and instruction at the University. May be repeated for credit. S/U grading.

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional editing, bibliography, filmography, videoconfer- ence and festival direction, and other professional activities. May not be applied toward M.A. degree requirements. May be repeated S/U grading.

C409A. Advanced World Arts Practices in North America and Diaspora. (2) Studio, three hours; outside study, three hours. Advanced-level study of world arts practices originating from North America, including the U.S., Canada, and Mexico. Variables include 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. (2) Studio, three hours; outside study, three hours. Advanced-level study of world arts prac- tices originating from Europe and extending to cul- tures of European diaspora, including the U.S. Vari- able 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. (2) 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.

441. Dance Production. (2 to 4) Laboratory, four to eight hours (one or two hours may be indi- vidualized consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeat- ed for a maximum of 8 units. S/U grading.

451. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Culture departments teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

452. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in the community school or other approved site. No more than 4 units may be applied toward M.A. degree requirements. S/U grading.

478. Advanced Private Instruction in World Arts and Cultures. (2 to 8) (Formerly numbered 498.) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with distin- guished community-based artist to be arranged by students and approved by instructor. May be repeat- ed for a maximum of 24 units. S/U grading.

480. Seminar: Research Topics. (2) Seminar, two hours. Forum in which faculty, students, and visitors make presentations and obtain feedback on research bera of course plans. Microteaching sessions provide context for applying topics and principles dis- cussed. S/U grading.

490. Projects in Choreography and Performance. (2 to 8) Tutorial, one three-hour rehearsal per week minimum. Creation, casting, and rehearsing of culminating concert, reflecting professional achieve- ment in choreography or performance. In second term, direction of on-stage rehearsals for cul- minating concert by each student leading to fully staged performance. May be repeated for a maximum of 16 units. S/U or letter grading.

495. Teacher Preparation in World Arts and Cultures. (2) Seminar, two hours. Directed work in prep- aration of course syllabi and discussion of topics rele- vant to developing teaching skills. Fundamental prin- ciples and methods with which to design course sylla- bi and gather resources for courses. Topics include development of teaching philosophy, evaluating/ep- lecting course content, teaching methodologies, as- sessment/evaluation/practicing, and consideration 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 courses and principles dis- cussed. S/U grading.

498. Professional Internship in Dance. (4, 8, or 12) Seminar, to be arranged. Full- or part-time super- vised fieldwork. Limited to M.F.A. students. Internship in dance, theater, film, or television organization. Par- ticipation in creative, administrative, or technical work of professionals in their specialties. S/U or letter grading.

506A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

506R. Directed Study or Research in a Hospital or Clinic. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for Master’s Comprehensive Exam- ination 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. qualify- ing examination. S/U grading.


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), disability, age, medical condition (cancer-related), ancestry, marital status, citizenship, sexual orientation, or status as a Vietnam-era veteran or special disabled veteran. 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) 825-4042. Hearing impaired persons may call TTY (310) 206-6083.

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 Karen Henderson-Winge, Coordinator of ADA and 504 Compliance, A239 Murphy Hall, UCLA, Box 951405, Los Angeles, CA 90095-1405, voice (310) 825-7906, TTY (310) 206-3349; http://www.sao-net.ucla.edu/ada.htm.

Students may complain of any action which they believe discriminates against them on the grounds 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://www.ucop.edu/ucophome/coordrev/ucpolicies/aos/toc.html) 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 comply with the general law, University policies, and campus regulations. For further information, refer to the University of California Policies Applying to Campus Activities, Organizations, and Students at http://www.ucop.edu/coordrev/ucpolicies/aos/toc.html and the UCLA Student Conduct Code (hereafter referred to as UCLA Code) at http://www.deanofstudents.ucla.edu/studentconductcode.pdf.

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. Although the University will not routinely invoke its disciplinary processes over student conduct that occurs off campus except in connection with an official University function, the University has discretion to exercise jurisdiction over conduct that occurs off campus and that would violate student conduct and discipline policies or regulations if the conduct had occurred on campus 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.

Specifically, the University may choose to exercise jurisdiction over off-campus incidents under item 1 above where the alleged misconduct involves

a. Physical abuse, including but not limited to rape, sexual assault, sex offenses, and other physical assault; threats of violence; or conduct that threatens the health or safety of any person;

b. Stalking (as defined in Section 102.10 of the University of California Policies Applying to Campus Activities, Organizations, and Students);

c. Sexual harassment (as defined in Section 160.00 et seq. of the University of California Policies Applying to Campus Activities, Organizations, and Students);

d. Hazing (as defined in Section 102.12 of the University of California Policies Applying to Campus Activities, Organizations, and Students).

In determining whether or not to exercise off-campus jurisdiction in cases under item 1 above, 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 evidence, including the testimony of witnesses; or whether the off-campus conduct is part of a series of actions that occurred both on and off campus.

This section is intended only to provide guidance for the exercise of discretion by the University in invoking its jurisdiction over conduct that occurs off campus. It may not be relied on by any student charged under this section to create any rights, substantive or proce-

Salary and Employment Information, University of California

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*Source: A national survey of a representative group of colleges conducted by the National Association of Colleges and Employers, representing the 80 percent range of offers for April 2005 throughout the country. It should be noted that a wide variation in starting salaries exists within each discipline based on job location, type of employer, personal qualifications of the individual, and employment conditions at the time of job entry.
dural, or as a basis for a challenge to the exercise of the University's jurisdiction.

**B. Types of Misconduct**

Violations or attempted violations include, but are not limited to, the following types of misconduct (Sections 102.01 through 102.25 are adapted from the *University of California Policies Applying to Campus Activities, Organizations, and Students*):

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

**102.01c: Plagiarism.** Plagiarism includes, but is not limited to, the use of another's words or ideas as if they were one's own, including but not limited to representing, either with the intent to deceive or by the omission of the true source, part of or an entire work produced by someone other than the student, obtained by purchase or otherwise, as the student's original work or representing the identifiable but altered ideas, data, or writing of another person as if those ideas, data, or writing were the student's original work.

**102.01d: Multiple Submissions.** Multiple submissions includes, but is not limited to, the resubmission by a student of any work which has been previously submitted for credit in identical or similar form in one course to fulfill the requirements of a second course, without the informed permission/posting 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/posting 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 misconduct (e.g., cheating, fabrication, plagiarism, multiple submissions).

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

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

**102.04: Theft.** Theft of, conversion of, misappropriation of, or damage to or destruction of any property of the University or property of others while on University premises or at official University functions; or possession of any property when the student had knowledge or reasonably should have had knowledge that it was stolen.

**102.05: Computers.** 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, and interference with the work of others and with the operation of computer and electronic communications facilities, systems, and services. Violation of the UCLA E-Mail Policy and Guidelines (available at http://www.admin.ucla.edu/appmp/public/app_0455_0.html), the University of California Electronic Communications Policy (available at http://www.uccp.edu/ucphone/policies/ec), 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: University Housing and Parking.**

**102.07a: University Housing.** Violation of policies, regulations, or rules governing University-owned, operated, or -leased housing facilities or other housing facilities located on University property.

**102.07b: Parking.** Violation of policies, regulations, or rules governing University parking services or University-owned or -operated parking facilities.

**102.08: Physical Abuse.** Physical abuse, including but not limited to rape, sexual assault, sexual offenses, and other physical assault; threats of violence; or other conduct that threatens the health or safety of any person.

**Rape.** (For the purposes of the UCLA Code, rape refers to "rape" as defined by the California Penal Code as it may be amended from time to time.) The following acts, among others, are prohibited:

1. Sexual intercourse against a person's will accomplished by force or threats of bodily injury
2. Sexual intercourse against a person's will where the person has reasonable fear that he or she will be injured if he or she (or her) does not submit to the intercourse
3. Sexual intercourse where the person is incapable of giving consent, or is prevented from resisting, due to alcohol or drugs, and this condition was known, or reasonably should have been known by the accused

4. Sexual intercourse where the person is incapable of resisting because she (or he), at the time, is unconscious or asleep, and this is known to the accused

**Sexual Assault.** The act of sexual assault includes forced sodomy (anal intercourse); forced oral copulation (oral-genital contact); rape by foreign object (forced penetration by a foreign object, including a finger); and sexual battery (the unwanted touching of an intimate part of another person for the purpose of sexual arousal). These also include situations when the accused sexually assaults a complainant incapable of giving consent, including where the complainant is prevented from resisting due to alcohol or drugs and this condition was known, or reasonably should have been known by the accused. NOTE: For the purpose of this regulation, students should understand that

1. Forced intercourse or other unwanted sexual contact is defined as rape or sexual assault whether the assailant is a stranger or an acquaintance of the complainant
2. Intoxication of the assailant shall not diminish the assailant's responsibility for sexual assault

**102.09: Sexual Harassment.** Unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature constitute sexual harassment when

a. A student who is also an employee of the University makes submission to such conduct, either explicitly or implicitly, a term or condition of instruction, employment, or participation in other University activity over which the student has control by virtue of his or her University employment; or

b. A student who is also an employee of the University makes submission to or rejection of such conduct a basis for evaluation in making academic or personnel decisions affecting an individual, when the student has control over such decisions by virtue of his or her University employment; or

c. Such conduct by any student has the purpose or effect of creating a hostile and intimidating environment sufficiently severe or pervasive to substantially impair a reasonable person's participation in University programs or activities, or use of University facilities

In determining whether the alleged conduct constitutes sexual harassment, consideration shall be given to the record of the incident as a whole and to the totality of the circumstances, including the location of the incident and the context in which the alleged incidents occurred. In general, a charge of harassing conduct can be addressed under the *UCLA Code*
only when the University can reasonably be expected to have some degree of control over the alleged harasser and over the environment in which the conduct occurred.

102.10: Stalking. Stalking behavior in which a student repeatedly engages in a course of conduct directed at another person and makes a credible threat with the intent to place that person in reasonable fear for his or her safety, or the safety of his or her family; where the threat is reasonably determined by the University to seriously alarm, torment, or terrorize the person; and where the threat is additionally determined by the University to serve no legitimate purpose.

102.11: Harassment. Harassment by a student of any person. For the purposes of this section, harassment
a. Is the use, display, or other demonstration of words, gestures, imagery, or physical materials, or the engagement in any form of bodily conduct, on the basis of race, color, national or ethnic origin, alienage, sex, religion, age, sexual orientation, or physical or mental disability that has the effect of creating a hostile and intimidating environment sufficiently severe or pervasive to substantially impair a reasonable person’s participation in University programs or activities, or use of University facilities;
b. Must target a specific person or persons; and
c. Must be addressed directly to that person or persons

NOTE: The Office of the President has issued the following guidelines on interpretation and application of this section (102.11: Harassment): “Prior to applying this provision of policy to any student conduct, the Office of General Counsel will be consulted regarding its proper interpretation and application in light of the specific circumstances.”

102.12: Hazing. Participation in 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 Conduct. 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 his or her 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. Unlawful manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances, identified in Federal and State laws or regulations.

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.

102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, firebombs, or other destructive devices.

102.20: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under the UCLA 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 Code.

102.23: Unauthorized Use or Sale of University Materials.

102.23a: Selling Course Notes. Selling, preparing, or distributing for any commercial purpose course lecture notes or 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 course notes or recordings by a student is a violation of the UCLA Code whether or not it was the student or someone else who prepared the notes or recordings.

102.23b: Copying Course Notes. Copying for any commercial purpose handouts, readers, 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).

102.23c: Commencement Tickets. Selling commencement tickets.

102.24: University Properties. Using University properties for the purpose of organizing or carrying out unlawful activity.

102.25: Violations of Law. Violation of Federal, State, or local laws.

Rape and Other Forms of Sexual Assault

UCLA does not tolerate sexual assault in any form, including rape, acquaintance rape, or date rape. Where there is probable cause to believe that the campus regulations prohibiting sexual assault have been violated, the campus pursues disciplinary actions that may include sanctions up to and including dismissal from the University.

A student charged with sexual assault can be prosecuted under California criminal statutes and disciplined under the campus student conduct policies and regulations. Even if the criminal justice authorities choose not to prosecute, the campus can pursue disciplinary action.

For updates, see http://www.deanofstudents.ucla.edu/ON-Rape_and_Other_Forms_of_Sexual_Assault.htm.

Definitions

For detailed definitions of rape and sexual assault, refer to Section 102.08 of the UCLA Student Conduct Code listed above.

If a Person Has Been Raped or Sexually Assaulted

Those who believe that they are the victims of rape or other forms of sexual assault should

1. Immediately call the police department. If possible, call 911 or the UCLA Police Department at (310) 825-1481

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 Rape Services Consultant (RSC) at the Center for Women and Men. RSCs have expertise in working with victims of rape or sexual assault. 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. RSCs are available to assist UCLA faculty, staff, and students regardless of where or when the assault occurred. For assistance, contact the Center for Women and Men at (310) 825-3945 or go to B44 Student Activities Center and ask to speak to an RSC.

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.
Campus Discipline Process When the Assailant Is a Student

Those who believe that they are the victims of rape or other forms of sexual assault by a student on University properties or in conjunction with an official University function may file a complaint directly with the Office of the Dean of Students, 1206 Murphy Hall, http://www.deanofstudents.ucla.edu.

Cases referred to the Office of the Dean of Students are treated under the hearing procedures set forth in the UCLA Student Conduct Code (http://www.deanofstudents.ucla.edu/stUDENTConductcode.pdf). Where the allegation is of rape or other forms of sexual assault, and the case is referred to the Student Conduct Committee, the following additional procedures shall apply:

1. The complainant shall be entitled, for support, to have up to two persons of the complainant's choice accompany the complainant to the hearing. A support person may be called as a witness, and the fact that he or she is to act as a witness shall not preclude that person's attendance throughout the entire hearing. If a support person is also a witness, the committee chair (or the hearing officer) may require him or her to testify prior to the complainant. Neither of these persons shall be entitled to represent or defend the complainant. Similar rights shall be afforded to the accused student.

2. The complainant shall have the right to be present during the entire hearing, notwithstanding the fact that the complainant is to be called as a witness.

3. Evidence of the complainant's past sexual history, including opinion evidence, reputation evidence, and evidence of specific instances of the complainant's sexual conduct, shall not be admissible by the accused student unless the committee chair or hearing officer makes a specific finding of relevance after an offer of proof by the accused student. Under no circumstances is past sexual history admissible to prove consent. The offer of proof must be made and resolved by the panel before the complainant testifies.

4. The hearing shall be closed to spectators.

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 alleged offender’s supervisor and/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. Center for Student Programming, Associate Director, 105 Kerckhoff Hall, (310) 825-7041

3. Center for Women and Men, Director, B44 Student Activities Center, (310) 825-3945

4. Chancellor’s Office, Sexual Harassment Coordinator, 2241 Murphy Hall, (310) 206-3417

5. David Geffen School of Medicine, Senior Associate Dean of Student Affairs/Graduate Medical Education, 12-139 Center for the Health Sciences, (310) 825-6774; 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. Neuropsychiatric Hospital, Administration/Human Resources Associate Director, B7-370 NP&H, (310) 206-5258

10. Office of the Dean of Students, Assistant Dean of Students, 1206 Murphy Hall, (310) 825-3871

11. Office of International Students and Scholars, 108 Bradley Hall, (310) 825-1681

12. Office of Ombuds Services, 105 Strathmore Building, (310) 825-7827

13. Office of Residential Life, Judicial Coordinator, Residential Life Building, 370 De Neve Drive, (310) 825-3401

14. Santa Monica-UCLA Medical Center, Healthcare Human Resources Director, 1250 16th Street, Santa Monica 90404, (310) 319-4351

15. School of Dentistry, Assistant Dean, Student Affairs, 10-135A Dentistry, (310) 825-2615

16. Staff Affirmative Action Office, Staff Affirmative Action Officer, 1050 UCLA Wilshire Center, (310) 794-0691

17. Student Legal Services, Director, 70 Dodd Hall, (310) 825-9894

18. Student Psychological Services, Director, Wooden Center West, (310) 825-0768

19. 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://www.ucop.edu/ucophome/coordrev/ucpolicies/aos/toc.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 the Universitywide Student Conduct Harassment Policy (http://www.deanofstudents.ucla.edu), 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. Center for Women and Men, B44 Student Activities Center, (310) 825-3945, http://www.thecenter.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 by a student and intervening on behalf of the complainant to the extent possible.

Faculty Code of Conduct
The entire Faculty Code of Conduct can be found in the UCLA Faculty Handbook (copies are available in the Academic Personnel Office, 3109 Murphy Hall, and at http://www.apo.ucla.edu/facultyhandbook9.htm). Part II A of the Faculty Code of Conduct outlines faculty obligations to students and reads as follows:

Teaching and Students
Ethical Principles: “As teachers, the professors encourage the free pursuit of learning of their students. They hold before them the best scholarly standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to assure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic and scholarly assistance from them. They protect their academic freedom.” (from 1966 AAUP statement, revised 1987)

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 and Disciplinary Procedures Committee, file such a charge in person if the student continues to feel it is warranted.

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 a nonresident tuition fee 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.

Laws Governing Residence
The rules regarding residence for tuition purposes in the University of California are governed by the California Education Code and implemented by Standing Orders of The Regents of the University of California. Under these rules adult citizens and certain classes of aliens can establish residence for tuition purposes. There are particular rules that apply to the residence classification of minors (see below).

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.

Nonimmigrants 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, or 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 sev-
uring their residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year durational period is extended until students have demonstrated both presence and intent for one full year. If their parents are not California residents, 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 resident 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 deduction 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 those years and the current year.

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 military service, (3) obtaining a California driver’s license or, if they do not drive, a California Identification Card, (4) obtaining California vehicle registration, (5) paying California income taxes as a resident, excluding 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 on or before their 18th birthday. If they begin residing with their California parent after their 18th birthday, they are treated like any other adult student coming to California to establish residence.

**Parent of Minor Moves from California**

Students may be entitled to resident status if they are minor U.S. citizens or eligible aliens whose parent(s) was a resident of California who left the state within one year of the residence determination date if (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**

Minor students may be entitled to resident classification if, immediately prior to enrolling in a postsecondary institution, they have been living with and under the continuous direct care and control of an adult or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of majority 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 postsecondary institution.

**Self-Support**

If students are U.S. citizens or eligible aliens and are either a minor or age 18 and 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 Tuition**

**Member of the Military**

Members of the U.S. military may be exempt from the nonresident tuition fee 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 until they have resided in California the minimum time necessary to become a resident (366 days). 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.

**Spouse, Registered Domestic Partner, or Other Dependents of Military Personnel**

Students are exempt from payment of the nonresident tuition fee if they are a spouse, registered domestic partner, or natural or adopted child or stepchild who is a dependent of a member of the U.S. military stationed in California on active duty. The exemption is available until they have lived in California long enough to become a resident. Students must petition for a waiver of the nonresident tuition fee each term they are eligible. If they are enrolled in an educational institution and the member of the military 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 military 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 the nonresident tuition fee. Confirmation of the faculty member’s membership on the Academic Senate must be secured each term this waiver is granted.

**Child, Spouse, or Registered Domestic Partner of University Employee**

Students may be entitled to resident classification if they are an unmarried dependent child, spouse, or registered domestic partner of a full-time University employee whose assignment is outside California (e.g., Los Alamos Scientific Laboratory). 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 the nonresident tuition fee 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 adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a waiver of the nonresident tuition fee 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 the nonresident tuition fee.

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 the nonresident tuition fee.

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 the nonresident tuition fee 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 the nonresident tuition fee. They are not eligible for the exemption if they are a nonimmigrant alien.

Surviving Dependents of California Residents Killed in the September 11, 2001, Terrorist Attacks
Students who are surviving dependents of California residents killed in the September 11, 2001, terrorist attacks may be exempt from the nonresident tuition fee.

Recipients of the Congressional Medal of Honor and Their Children under Age 27
Congressional Medal of Honor recipients and their children under age 27 may be exempt from the nonresident tuition fee.

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 Resident Classification
Students may obtain a petition at 1113 Murphy Hall or at http://www.registrar.ucla.edu/forms/residencyclass.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; http://www.registrar.ucla.edu/FAQ/residence.htm) or to the Senior Paralegal—Residence Matters, 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.

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. Any student, following a final decision on residence classification by the residence deputy, may appeal in writing to the senior paralegal within 30 days of notification of the residence deputy's final decision.

Privacy Notice
All of the information requested on the Statement of Legal Residence form is required (by the authority of Standing Order 110.2 (a)-(d) of The Regents of the University of California) 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. Students have the right to inspect University records containing the residence information requested on the form.

Financial Aid Minimum Progress Standards
Federal regulations require UCLA to establish, publish, and apply standards of satisfactory academic progress for financial aid eligibility. Students who fail to meet minimum progress standards become ineligible to receive financial aid until they are in compliance with the standards. If, during any term, students expect they cannot meet the satisfactory academic progress requirements listed below, they should contact the Financial Aid Office immediately for further advising. See http://www.tao.ucla.edu/Forms/pdfs/saguide_04.pdf.

Undergraduate Students

Qualitative Standard
The qualitative standard is enforced by the College or school. Students are notified by their academic department if they fall below the required grade-point average (GPA).
Period of Eligibility
The degree program to which students are admitted determines the maximum number of terms for which they can receive need-based financial aid. Terms for which no need-based aid is received are considered when determining the remaining number of terms of financial aid eligibility.

Students who are in a credential program or a professional master's program (other than Master of Fine Arts) are eligible for a maximum of nine terms of need-based financial aid.

Students who are in a Master of Fine Arts program are eligible to apply for aid for the first 12 terms of enrollment. If students are in an M.A. or M.S. program, a doctoral program, or a combination master's/doctoral program, their eligibility expires after 27 terms of enrollment. Students who change their program may be accommodated through an extension of terms of eligibility. The extension should be secured at the time the program change is made.

Professional Schools
Students attending the Schools of Dentistry, Law, and Medicine 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 University 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 cheat, 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 UCLA Academic Senate in cases where it has been determined by the Committee on Privilege and Tenure that an instructor has assigned a grade on any basis other than academic grounds. No change of grade may be made on the basis of 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. 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 which 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 examination (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 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 "directory information" which 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.

Students who do not wish certain items (i.e., name, local/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 "directory information" released and published may so indicate through URSA (http://www.ursa.ucla.edu). To restrict the release and publication of the additional items in the category of "directory information," complete the UCLA FERPA Restriction Request form available from Enrollment and Degree Services, 1113 Murphy Hall.

Student records which 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, and the offices of a student's College or school and major department. Students are referred to the online UCLA Campus Directory (http://www.directory.ucla.edu) which lists all offices that may maintain student records, together with their campus address and telephone number. Students have the right to inspect their student records in any such office subject to the terms of Federal and State Laws and University Policies. Inspection of student records maintained by the Registrar's Office is by appointment only and must be arranged three working days in advance. Call (310) 825-3801 or inquire at Academic Record Services, 1134 Murphy Hall.

A copy of the Federal and State Laws, University Policies, and the UCLA Telephone Directory may be inspected in the office of the Information Practices Coordinator, 600 UCLA Wilshire Center. Information concerning students' hearing rights may be obtained from that office and from the Office of the Dean of Students, 1206 Murphy Hall.

In addition to the public information described above, information related to students' Social Security number, sex, and marital status, and the name(s), address(es), and telephone number(s) of their parents or next of kin are made available to the UCLA External Affairs Department for use in alumni, development, and pub-
lic relations activities. To restrict the release of this additional information, complete a Request for External Affairs Information Restriction form available from Enrollment and Degree Services, 1113 Murphy Hall.

**Undergraduate Retention, Graduation, and Time to Degree**

Retention and graduation rates are higher than ever before at UCLA and among the highest for public universities anywhere in the country. Over the past three years, 96 percent of all students entering from high school and 94 percent of all students entering as transfers were still enrolled at UCLA one year later.

Over the past three years, the four-year, five-year, and six-year graduation rates for students entering from high school averaged 57, 84, and 87 percent respectively. Final graduation rates of 87 percent or higher are projected for all freshmen cohorts arriving at UCLA since 1996.

Over the past three years, the two-year, three-year, and four-year graduation rates for entering transfer students have averaged 50, 82, and 87 percent respectively. Final graduation rates of 87 percent or higher are projected for all transfer cohorts arriving at UCLA since 1998.

Time to degree for UCLA undergraduates has declined significantly over the past decade. In 2003-04 approximately 3,900 baccalaureate degrees were awarded to students who entered directly from high school. The average number of quarters registered at UCLA was 12.5, down from an average of 13.4 quarters for similar graduates in 1993-94. Among recent graduates, 66 percent were registered for 12 quarters or less (i.e., four years or less), 75 percent for 13 quarters or less, 83 percent for 14 quarters or less, and 96 percent for 15 quarters or less (i.e., five years or less).

In 2003-04 approximately 2,900 baccalaureate degrees were awarded to students who entered as transfers. The average number of quarters registered at UCLA was 7.0, down from an average of 7.8 quarters for similar graduates in 1993-94. Among recent graduates, 53 percent were registered for six quarters or less (i.e., two years or less), 67 percent for seven quarters or less, 81 percent for eight quarters or less, and 93 percent for nine quarters or less (i.e., three years or less).

Additional information is available at [http://www.aim.ucla.edu/data_students.html](http://www.aim.ucla.edu/data_students.html).

**Campus Security Information**

**UCLA Police Department**

The UCLA Police Department (310-825-1491; [http://www.ucpd.ucla.edu](http://www.ucpd.ucla.edu)), located at Westwood Plaza and Charles E. Young Drive South, has 56 sworn California State Police Officers empowered by the State of California with the authority to enforce all state and local laws. UCLA police officers patrol the campus 24 hours a day, 365 days a year. They enforce all applicable local, state, and federal laws, arrest violators, investigate and suppress crime, and provide a full range of police services and community safety programs.

The department is linked by computer to city, state, and federal criminal justice agencies that provide access to information concerning criminal records, wanted persons, stolen property, and vehicle identification. The Detective Bureau handles criminal investigations, and detectives conduct interviews, arrest violators, execute search warrants, and file cases with the city attorney’s office.

**Incident Reporting**

UCLA police officers have primary jurisdiction over the UCLA campus, Center for the Health Sciences, and University Apartments South. The City of Los Angeles Police Department does not handle calls for service on campus. All requests for police service should be made to the UCLA Police Department. All crime occurring on campus, the Center for the Health Sciences, and other UCLA properties should be reported immediately to the department to ensure appropriate action is taken. Crimes occurring off campus should be reported immediately to the local law enforcement agency.

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

Campus community members are encouraged to program the department number (310-825-1491) into their cell phones. When on campus this number should be used in the event of an emergency to avoid the delay caused by the time it takes for the emergency cellular operators to transfer calls to the appropriate jurisdiction.

NONEMERGENCY calls for service can be made by contacting the department at (310) 825-1491.

**Crime Statistics and Reports**

As required by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, UCLA prepares an annual report describing campus security policy and information concerning alcohol and drug use, crime prevention, crime reporting, and related matters. It also includes three years of crime statistics. Printed copies are available by calling (310) 825-1491. The report can be accessed at [http://www.ucpd.ucla.edu/ucpd/clery.htm](http://www.ucpd.ucla.edu/ucpd/clery.htm).

**Community Service Officers**

The UCLA Police Department employs approximately 125 student community service officers (CSOs; [http://www.ucpd.ucla.edu/ucpd/services_escort.html](http://www.ucpd.ucla.edu/ucpd/services_escort.html)) who are the “eyes and ears” (trained observers) of the department and act as nonintervention visual deterrents to crime. CSOs wear high-visibility uniforms and carry two-way police radios. They are dispatched by the department’s Communications Center and provide a direct link to police, fire, or medical aid. CSOs provide security service to a number of campus buildings, including residence halls and libraries. They are most well-known for the Campus Escort Service and the Evening Van Service. The Campus Escort Service operates every day of the year from dusk to 1 a.m. Individuals requesting the service call the Communications Center at (310) 794-9255; a CSO is then dispatched to walk them safely to their destination. The service is available to UCLA students, staff, faculty, and visitors and operates on campus and in the nearby residential areas. The Evening Van Service provides a safe and convenient mode of transportation around campus at night and is accessible to people with disabilities.

**Crime Prevention**

An involved community is one of the best defenses against crime. Therefore, the department is committed to a community policing philosophy and supports a proactive Crime Prevention Unit ([http://www.ucpd.ucla.edu/ucpd/services_crimeprev.html](http://www.ucpd.ucla.edu/ucpd/services_crimeprev.html)) that works closely with community members to make UCLA a safer place to work, live, and learn. The unit gives presentations on vehicle and residential security, personal safety, office and equipment security, and rape prevention. Other programs are developed to meet the special needs of the campus community. Brochures and literature on crime prevention and personal safety are available. The Center for Women and Men and the Crime Prevention Unit provide presentations on sexual assault issues. Topics include acquaintance rape education and prevention, personal safety and prevention techniques, recovery from sexual assault, clear communications, pornography, and the continuum of violence and rape in society. The educational programs, tailored to meet the needs of individual audiences, include films, discussion groups, lectures, role-plays, and communication exercises. The Center for Women and Men reaches students through the residence halls, sororities, fraternities, athletic teams, student clubs, and various student functions. Services include crisis intervention and advocacy for victims of sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape survivors; and self-defense classes and a lending library. The center 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 which pose a potential threat to the campus are brought immediately to the attention of the community through [Campus Alert Bulletins](http://www.ucpd.ucla.edu/ucpd/bulletinCrime.html). Additionally, those inter-
multistudent apartment complexes to high-rise
ments designed for students with children to
students. Housing facilities range from apart-
residential housing to approximately 11,000
UCLA is the size of a small city and provides
Residential Housing
sanctions by the University.

Alcohol on the UCLA campus is restricted by the
police officers. Student violators are subject to
subscription is illegal under both State and Federal
sion to seek assistance is not used in connec-
ted at athletic events). In keeping with its edu-
services provided by the University and the
UCLA Police Department, which provides as-
assistance to students, faculty, and staff and/or
referrals to neighboring police departments.

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 behav-
ioral problems. Therefore, UCLA makes avail-
able to every student a variety of alcohol and
stance abuse awareness programs which are
designed to discourage the use of illicit
substances and to educate students on the
merits of legal and responsible alcohol con-
sumption. Student Psychological Services
(310-825-0768; http://www.sps.ucla.edu) pro-
vides counseling and referral assistance to
students who are troubled by alcohol or sub-
stance abuse problems. The service is com-
pletely confidential and free to regularly
enrolled students. All information and counsel-
ing is treated in accordance with University
Policies and State and Federal Laws. Any deci-
sion to seek assistance is not used in connec-
tion with any academic determination or as a
basis for disciplinary proceedings.

Policies
UCLA is designated as a drug-free environ-
ment, and only under certain conditions is al-
cohol consumption permitted (none is permit-
ted at athletic events). In keeping with its edu-
cational mission, the University assumes the
responsibility to better inform the UCLA com-
munity about alcohol and substance abuse.

The sale, manufacture, distribution, or posses-
sion of any controlled substance without a pre-
scription 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 prosecu-
tion, fine, and imprisonment. Refer to the
UCLA policies on substance abuse for further
information.

The sale, consumption, and distribution of al-
cohol 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 apart-
mants designed for students with children to
multistudent apartment complexes to high-rise

Campuswide security and safety programs for
residents are held throughout the year to in-
crease crime potential awareness and improve
campus safety. To keep residents immediately
informed of major crime or threats to the cam-
pus, Crime Alert Bulletins are posted in resi-
dential areas by the housing staff. However,
residents must take an active role to ensure
their own safety by exercising simple commonsen-
sense crime prevention techniques. Because
the campus is open 24 hours a day, visitation
to residence halls and apartments is not re-
stricted. All residence halls have 24-hour ac-

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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 225 endowed chairs which have been approved by the Office of the President of the University of California, as follows. (Asterisks indicate new endowed chairs which have been approved by the Office of the President since publication of the 2003-05 UCLA General Catalog.)

University Registrar
Anita L. Cotter, M.S.
Dean of University Extension
Robert Lapiner, Ph.D.

Deans of UCLA College and Schools
School of the Arts and Architecture
Christopher Waterman, Ph.D.
School of Dentistry
No-Hee Park, D.M.D., Ph.D.
Graduate School of Education and Information Studies
Aimée Dorr, Ph.D.
Henry Samuel School of Engineering and Applied Science
Vijay K. Dhir, Ph.D.
School of Law
Michael H. Schill, J.D.
College of Letters and Science
Executive Dean
Patricia O’Brien, Ph.D.
Division of Honors and Undergraduate Programs
Judith L. Smith, Ph.D.
Division of Humanities
Gabrielle M. Spiegel, Ph.D.
Division of Life Sciences
Emil Reisler, Ph.D.
Division of Physical Sciences
Tony F.C. Chan, Ph.D.
Division of Social Sciences
Scott L. Waugh, Ph.D.
UCLA International Institute
Geoffrey M. Garrett, Ph.D.
John E. Anderson Graduate School of Management
Bruce G. Willison, M.B.A.
David Geffen School of Medicine
Gerald S. Levey, M.D.
School of Nursing
Marie J. Cowan, R.N., Ph.D.
School of Public Affairs
Barbara J. Nelson, Ph.D.
School of Public Health
Linda Rosenstock, M.D.
School of Theater, Film, and Television
Robert Rosen, M.A.

School of the Arts and Architecture
*Alma M. Hawkins Memorial Chair
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Presidential Chair in Music and Interactive Arts
UCLA Art Council Professorship of Art

School of Dentistry
*Dr. Thomas R. Bales Chair in Orthodontics
Tarrson Family Endowed Chair in Periodontics
*Jack A. Weichman Chair in Endodontics

Graduate School of Education and Information Studies
Allan Murray Carter Chair in Higher Education
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Educational Equity
Presidential Chair in Information Studies

Henry Samuel School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Roy and Carol Doumani Chair in Biomedical Engineering
Norman E. Friedmann Chair in Knowledge Sciences
*Evalyn Knight Chair in Engineering
Levi James Knight, Jr., Chair in Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Grumman Chair in Electrical Engineering
Northrop Grumman Chair in Electrical Engineering/Electromagnetics
*Northrop Grumman Opto-Electronic Chair in Electrical Engineering
Ralph M. Parsons 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
Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell International Chair in Engineering
William Frederick Seyler Term Chair in Materials Electrochemistry

School of Law
Harry Graham Batten Chair in Law
Connell Professorship of Law
Richard C. Maxwell Chair in Law
Arjay and Frances Fearing Miller Chair in Law
David G. and Dallas P. Price Chair in Law
*Gary T. Schwartz Endowed Chair in Law
Security Pacific Bank Chair
William D. Warren Chair in Law
*Wells Environmental Chair

College of Letters and Science
Armen A. Alchian Chair in Economic Theory
Maurice Amado Chair in Sephardic Studies
*George T. and Sakaye I. Aratani Chair in Japanese American Internment and Redress
*Arden Realty Chair at Ziman Real Estate Center
Armenian Educational Foundation Chair in Modern Armenian History
RBSL Bergman Foundation Chair in Business Economics
Henry J. Bruman Chair in German History
Ralph Bunche Chair in International Studies
Edward W. Carter Chair in Netherlandish Art
James S. Coleman Chair in International Development Studies
Norman Cousins Endowed Chair in Psychoneuroimmunology
*D.J. and J.M. Cram Chair in Organic Chemistry
*Charlese E. Davidson Endowed Chair in Economics
Navin and Pratima Doshi Chair in Indian History
Mr. and Mrs. C.N. Flint Professorship of Philosophy
Evan Franklin Endowed Chair in English
Gloria and Paul Griffin Chair in Philosophy
John Charles Hillis Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
*Fred Kavli Chair in Nanosystems Sciences
John McGauley Career Development Chair
Dorothy L. Meier Social Equities Chair
Robert Michaels Chair in Behavioral Neuroscience
Robert and Sherry Michaels Chair for Excellence in Psychology
Franklin D. Murphy Chair in Italian Renaissance Studies
Narekatsi Chair in Armenian Studies
*1939 Club Chair
President’s Chair in Developmental Immunology
Hans Reichenbach Chair in Scientific Philosophy
Howard Reiss Career Development Chair
Musa Sabi Chair in Iranian Studies
*David S. Saxson Presidential Chair in Mathematics and Physics
David S. Saxson Presidential Chair in Physics
Louis B. Slichter Chair in Geophysics and Planetary Physics
Charles Speroni Chair in Italian Literature and Culture
Staglin Family Chair in Psychology
Steinmetz Chair in Classical Archaeology and Material Culture
Paul I. Terasaki Chair in U.S.-Japanese Relations
UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies
UCLA Foundation Chair
*Steven F. and Christine L. Udvar-Hazy Chair
Eugen Weber Chair in Modern European History
Alexander von Humboldt Endowed Chair in Geography
Dean M. Willard Chair in Chemistry
Saul Weinstein Chair in Organic Chemistry

John E. Anderson Graduate School of Management
Allstate Chair in Insurance and Finance
Anderson Worldwide Chair in Management
John E. Anderson Chair in Management
Marion Anderson 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. Corder Chair in Money and Financial Markets
Ernst and Young Chair in Accounting
Henry Ford II Chair in International Management
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hearsh Chair in Money and Banking
IBM Chair in Computers and Information Systems
Joseph Jacobs Chair in Entrepreneurial Studies
Neil Jacoby Chair in Management
Japan Alumni Chair in International Finance
Betsy Wood Knapp Professorship for Innovation and Creativity
Bud Knapp Professorship
Harry and Elsa Kunin Chair in Business and Society
*La Force Chair
William E. Leonard Chair in Management
Los Angeles Times Professorship of Management and Policy
Chauncey J. Medbery Chair in Management
Peter Mullin Chair for Chair of Faculty
Howard Noble Chair in Management
Paine Chair in Management
PricewaterhouseCoopers Faculty Fellowship in Accounting
George Robbins Chair in Management
Sanford and Betty Sigloch Chair in Corporate Renewal
*Williams Chair
Ho-Su Wu Chair in Management

David Geffen School of Medicine
William S. Adams, M.D., Chair in Medicine
*Leonard Apt Chair in Pediatric Ophthalmology
*Archstone Foundation Endowed Chair in Geriatrics
Dena Bat-Yacov Endowed Chair in Childhood Psychiatry and Behavioral Sciences
Louis D. Beaumont Chair in Surgery
Jerome L. Belzer Chair in Medical Research
*Lillian and Alvin L. Bergman Chair in Vascular Research
Bing Professorship of Urologic Research
*Anna and Harry Borun Chair in Geriatrics/Gerontology
Bowyer Professorship of Medical Oncology
Judson Braun Chair in Biological Psychiatry
*Geri and Richard Brawerman Chair in Pediatric Neurosurgery
*Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Joseph Campbell Chair in Child Psychiatry
Irish Cantor Chair in Breast Imaging
Edward W. Carter Chair in Internal Medicine
Castera Chair in Cardiology

Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology
*Carol and James Collins Chair
Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Endowed Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
M. Philip Davis Chair in Microbiology and Immunology
Roy and Carol Dourman Chair in Urological Oncology
Dumont-UCLA Chair in Transplantation Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
*Franklin Mint Chair in Eating Disorders
*Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
*Joan H. and C. Studio Sanger Professorship of Neuroscience
Laraine and David Gerber Chair in Ophthalmology
Joan S. and Ralph N. Goldwyn Chair in Immunobiology and Transplantation
*Julia S. Gow Chair in Mood Disorders
Dolly Green Chair in Ophthalmology
Maud Cady Guthman Chair in Cardiology
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
Julien I.E. Hoffman Chair, M.D., Chair in Cardiothoracic Surgery
*Margaret Holden Jones-Kanaar, M.D., Chair in Cerebral Palsy
Ronald L. Katz, M.D., Endowed Chair in Anesthesiology
Chizuko Kawata Chair in Cardiology
Karl Kirchgessner Foundation Chair in Vision Science
*Arnold W. Klein Chair in Dermatology
George F. Kneller Chair in Family Medicine
*Theo Kolokotrones Chair in Ophthalmology
Grace and Walter Lantz Endowed Chair
Eleanor I. Leslie Chair in Neuroscience
William P. Longmire, Jr., Chair in Surgery
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Della Martin Chair in Psychiatry
David May II Chair in Ophthalmology
Henry Alvin and Carrie L. Meinhardt Chair in Kidney Cancer Research
Sherman M. Mellinkoff Distinguished Professor in Medicine Endowed Chair
Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
Jane and Marc Nathanson Endowed Chair
James H. Nicholson Chair in Pediatric Cardiology
Oppenheimer Brothers Chair
Helga and Walter Oppenheimer Endowed Chair in Orthopaedic Oncology
Albert F. and David H. Parlow-Soloman Chair for UCLA Program on Aging
Samuel J. Pearlman, M.D., and Della Z. Pearlman Chair in Head and Neck Surgery
School of Public Health
Fred H. Bixby Chair in Population Policy
Fred W. and Pamela K. Wasserman Chair in Health Services

School of Theater, Film, and Television
Lew and Pamela Hunter/Janet and Janice Zakin Chair in Screenwriting
Rouben Mamoulian Visiting Chair in Film Directing
Rouben Mamoulian Visiting Chair in Theater Directing

APPENDIX D:
DISTINGUISHED TEACHING AWARDS

Academic Senate Recipients
Each year the UCLA Alumni Association presents Distinguished Teaching Awards to five Academic Senate faculty members. The highly prized awards are presented at the annual UCLA Alumni Association Awards Ceremony, 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. The awards are presented Distinguished Teaching Awards to five Academic Senate faculty members. The highly prized awards are presented at the annual UCLA Alumni Association Awards Ceremony, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during Fall Quarter.

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 Partridge (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 (Chemistry and Biochemistry)
Margaret S. Sellers (Microbiology and Immunology)

1970
Erhard Bahr (Germanic Languages)
Joseph Cascardo (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)

1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)

1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)

1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)

1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)

1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)
1999
Grace Ganz Blumberg (Law)
Alessandro Duranti (Anthropology)
Richard H. Gold (Radiological Sciences)
N. Katherine Hayles (English)
Bernard Weiner (Psychology)

2000
Scott H. Chandler (Physiological Science)
Efrain Kristal (Spanish and Portuguese)
Hector F. Myers (Psychology)
David Sklansky (Law)
Robert N. Watson (English)

2001
Michael J. Colacurcio (English)
Glen M. MacDonald (Geography)
Kevin Terraciano (History)
James W. Trent (Education)
Brian Walker (Political Science)

2002
Christopher R. Anderson (Mathematics)
Steven G. Clarke (Chemistry and Biochemistry)
Anne K. Mellor (English)
Lee Todd Miller (Pediatrics)
Grant S. Nelson (Law)

2003
Joseph J. DiStefano III (Computer Science, Medicine)
Robin L. Garrell (Chemistry and Biochemistry)
A.P. Gonzalez (Film, Television, and Digital Media)
Mitchell B. Morris (Musicology)
Kirk J. Stark (Law)

2004
David B. Kaplan (Philosophy)
Kathryn A. Morgan (Classics)
Mark R. Morris (Physics and Astronomy)
Jesús Torrecilla (Spanish and Portuguese)
Joan Waugh (History)
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 I. 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 Bartsch (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
Betty A. Luceigh (Chemistry and Biochemistry)
Cheryl Plof (Writing Programs)

1992
Janet Goodwin (Teaching English as a Second Language and Applied Linguistics)
Janette Lewis (Writing Programs)

1993
Yihua Wang (East Asian Languages and Cultures)

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 Tangherlini (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
Nicolle Dufresne (French)
Thomas Holm (Law)
Richard P. Usatine (Family Medicine)

2001
George Leddy (Geography/International Development Studies)
Sandi 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)

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 two years 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)
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Admissions, Undergraduate ................................. http://www.admissions.ucla.edu
Alumni Association .............................................. http://www.uclalumni.net
Bruin OnLine ........................................................... http://www.bol.ucla.edu
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Financial Aid ............................................................ http://www.fao.ucla.edu
General Catalog ....................................................... http://www.registrar.ucla.edu/catalog/
Health Insurance ...................................................... http://www.studenthealth.ucla.edu
Housing ................................................................. http://www.housing.ucla.edu
Institutional Facts and Data ...................................... http://www.aim.ucla.edu
International Student Services .................................. http://www.intl.ucla.edu
MyUCLA ................................................................. http://my.ucla.edu
Orientation .............................................................. http://www.orientation.ucla.edu
Parking and Transportation ..................................... http://www.transportation.ucla.edu
Registrar’s Office .................................................... http://www.registrar.ucla.edu
Schedule of Classes .................................................. http://www.registrar.ucla.edu/schedule/
Summer Sessions .................................................... http://www.summer.ucla.edu
UCLA Extension ...................................................... http://www.uclaextension.edu
UCLA Library ........................................................... http://www.library.ucla.edu
UCLA Store ............................................................. http://www.uclastore.com/uclagm/
University Fees ....................................................... http://www.registrar.ucla.edu/fees/
URSA OnLine .......................................................... http://www.ursa.ucla.edu
Veterans Services ..................................................... http://www.registrar.ucla.edu/faq/veteran.htm

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