Revised CEP Plan for General Education
May 2007

OVERVIEW

This revised CEP Plan for General Education (GE) is the product of a multi-year process involving the entire UCI campus. In 2004, the Task Force on Undergraduate Education published a set of recommendations that included changes to the existing breadth requirements designed to “accommodate greater flexibility and a broader scope of students’ interests” (Task Force Report, pg. 3). The campus was then invited to submit comments. CEP reviewed the Task Force report and comments, developed a set of goals for GE (see below), and designed a Plan for General Education, which went to the campus for comment in Spring 2006. That round of comments is addressed and reflected in this revised plan.

The revised CEP Plan for General Education has these new features:

• An intent to focus on students’ learning outcomes: the knowledge, abilities, and experience they will have at graduation. We recognize that most students will achieve these outcomes by completing courses, but we encourage overlap with major, school, and other GE course requirements so long as the outcomes are achieved. We continue to encourage satisfaction of GE requirements by AP courses and by examination, so that students who come to UCI with stronger preparation may take more elective courses; at the same time, we ensure that less-prepared students satisfy the goals of GE.

• A division of GE requirements into three major groups: academic competencies (Writing; Quantitative, Symbolic, and Computational Reasoning; and Language Other than English); foundations of knowledge (Science and Technology, Social and Behavioral Science, and Arts and Humanities); and real-world awareness and application (Multicultural Studies, International/Global Issues, and Laboratory/Performance).

• A broadening of the subject matter categories, allowing courses on many more topics to satisfy GE. The current Humanistic Inquiry category, for example, becomes Arts and Humanities; Natural Science becomes Science and Technology; Mathematics and Symbolic Systems becomes Quantitative, Symbolic, and Computational Reasoning.

• A relaxation of most current requirements that breadth courses form three-course sequences. Students may choose individual courses in each category (other than writing and foreign language). This change provides much greater flexibility and eliminates situations where a student must wait for one specific course to be offered before he or she can complete a requirement.
• A one-course Laboratory or Performance requirement to ensure that every student have at least one academic experience that goes beyond traditional classroom delivery. Students in most majors will satisfy this requirement automatically as they complete their major, but we believe no student should graduate without one such experience. The Task Force made a similar recommendation: “Every major should incorporate a research or practical experience that emphasizes discovery, performance, and practice as well as the acquisition of knowledge” (page 8).

The accompanying table compares the course requirements of the current breadth requirement with this proposal and with the “four threes” approach recommended by the Task Force. CEP endorses the Task Force goals of accommodating greater flexibility and a broader scope of students’ interests, elimination of unnecessary constraints, and allowing students to take an active role in choosing and balancing courses outside the major. The Task Force approach has these characteristics:

• Elimination of the current quantitative reasoning requirement.

• Elimination of the current multicultural and international requirements.

• Definition of breadth primarily in terms of department or school.

• Reduction of the maximum number of required breadth courses.

• Simplification of the requirements, allowing substantial freedom of choice for students.

CEP chose a middle ground, implementing many of the Task Force’s goals in a way that resembles the current breadth requirement. These are the main features of CEP’s implementation:

• Eliminating the quantitative reasoning requirement would reduce the total number of courses required of students in non-scientific disciplines, but CEP believes that quantitative reasoning skills, broadened to include information technology, are increasingly vital for success in most fields. Eliminating the requirement would send a contrary message.

• As UCI graduates will work in an increasingly multicultural and international environment, CEP believes that all students should have the opportunity to consider those issues directly.

• CEP also believes that course content, rather than administrative home, should be the primary factor that decides whether a course satisfies GE, and in what category. For example, quantitative reasoning courses are offered in many schools. However, CEP acknowledges the value of students learning from faculty outside of their home discipline and encourages students to choose their GE courses broadly across campus.
- For each category, CEP will propose an initial list of courses that satisfy the category, based largely on courses that satisfy current breadth requirements. CEP will augment these lists with additional courses. Academic units will be invited to propose additions and changes to these lists according to the current procedures (under which additions to breadth/GE take effect upon approval by CEP, rather than only once per year).

- CEP will re-institute regular reviews of the GE requirement categories; these reviews have been suspended during the revision process.

- This plan will be effective starting Fall 2008. This will not preclude students admitted in Fall 2007 or earlier from opting to follow this plan.

**GOALS FOR GENERAL EDUCATION**

UCI is committed to the values of a liberal education. One component of that commitment is the requirement that all undergraduates complete a set of general education requirements. General education courses introduce students to a range of ideas and intellectual activities that engage UCI scholars, providing both scope and balance to a university degree beyond the study of a specific major.

The general education requirements are intended to help undergraduates place the specialized study undertaken in the major within a broader context. They are designed to cultivate skills, knowledge, and understanding that will make students effective contributors to society and the world. The general education requirements should enable UCI undergraduates to apply the abilities developed in their studies to identify significant issues, gather and evaluate available evidence, analyze alternatives, reach conclusions, communicate the results effectively, and take considered actions. Thus, the goal of a liberal education is that students become

**EMPOWERED** by engaging in practices and modes of thought that enable
- effective communication—orally, visually, and in writing
- understanding and use of scientific evidence and analysis
- gathering, interpreting, and evaluating information from a variety of sources
- evaluation and creation of cogent arguments using quantitative and qualitative methods
- understanding and working effectively with complex systems and diverse groups
- creativity, intellectual agility, and the ability to manage change

**INFORMED** by knowledge that stimulates intellectual growth and enlarges their perspectives on themselves and the world

**RESPONSIBLE** for participating as informed decision-makers in a democratic society, with
- a lifelong mission to learn
- intellectual integrity
- the ability to discern the practical and ethical consequences of decisions and actions
- a concern for society’s well-being
- a capacity to reflect on their own values and commitments as well as the complex identities, histories, and cultures of others.

HISTORY OF GENERAL EDUCATION

In the early 20th century, the goals and direction of undergraduate education shifted. Undergraduates were increasingly majoring in a single discipline, and faculty sought ways to enable students to “relate what they were learning to the larger intellectual cosmology.” This focus on a single major was accompanied by an explosion in the forms of knowledge. Long gone was the possibility of a generally educated scientist and the scientifically literate undergraduate; there was simply too much to know and too many fields of study. Similar dilemmas confronted the social sciences and humanities, both of which broadened the scope of their fields, leaving little space for understanding the sciences. To complicate matters further, expanding fields of inquiry made it virtually impossible for faculty to identify and agree upon an “essential core of knowledge.” And this became a particularly thorny problem for the research university where undergraduate education took a back seat to other demands on faculty--primarily their research programs and graduate student training.

To address concerns about undergraduate education, faculty in research universities designed general education within three broad rubrics. One approach took educational diversity as its primary aim. Without requiring specific courses, students chose from an array offered by disciplinary departments. This system, known as “distribution requirements,” was based on insuring that students were not too narrowly focused.

A second model sought to educate students broadly across the fields of the liberal arts. But rather than students selecting their own courses, this model typically took the form of year-long sequences. Entitled “Great Books” or “core curriculum,” these survey courses were often based on broad synthetic historical approaches to “great ideas” and gave students access to a range of disciplines.

The third approach was “entirely cognitive,” in which the goal of liberal education was less about specific content than about teaching students how to think. This mode continues to form the basis of many liberal arts curricula.

FROM BREADTH TO GENERAL EDUCATION AT UCI

The breadth requirements currently in place at UCI can be described as a distribution model with emphasis on basic modes of thought and requiring knowledge developed in

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1 This overview is from Stanley Katz, “Liberal Education on the Ropes,” Chronicle of Higher Education, April 1, 2005.
depth through connected sequences. The area of humanistic inquiry, for example, is housed across schools and disciplines, and the required three-course sequences seek to provide students with depth by building knowledge in sequential steps. The Task Force on Undergraduate Education (2003-04) identified certain constraints and scheduling problems associated with the current breadth plan and devised a proposal leaning more toward the distribution form. Under their proposal, called “The Four Threes,” students would be able to choose discrete and unrelated courses within the existing academic framework of UCI (for example, courses within the School of Arts or School of Humanities).

CEP was charged with reviewing the Task Force recommendation and soliciting responses from the campus at large in 2005. Taking into serious consideration the many thoughtful responses we received, CEP proposed a third alternative, which in turn received responses from the campus at large in Spring 2006. This CEP General Education Plan has been revised based on those comments. It preserves some valued aspects of the existing breadth plan while addressing the Task Force’s goal of streamlining the requirements.

The revised CEP plan adopts the phrase “General Education” instead of “Breadth” to emphasize the change in philosophy, a focus not on distribution requirements but on important learning outcomes of a liberal education.

One key characteristic of the revised CEP plan is that it does not mandate course sequences as widely as the current breadth requirement. Requiring a course sequence dramatically narrows a student’s course choices after the first in a given category; by deemphasizing sequences, the CEP GE Plan (like the Task Force proposal) allows students much greater flexibility and variety in the GE courses they choose. CEP recognizes that in some cases, such as writing and foreign language, course sequences are pedagogically necessary. CEP does not discourage sequences; it simply does not mandate them broadly.

The plan begins with a set of goals for liberal education in three areas: practical abilities (Categories I, V, and VI)—what students should be able to do; foundations of knowledge (Categories II, III, and IV)—what they should know; and qualities of educated citizens (Categories VII, VIII, and IX)—what they will do with the ability and knowledge. (We retain the numbering scheme of the current plan, as past breadth revisions at UCI have retained the same numbering scheme while changing the categories’ content.)

Practical Abilities

The CEP General Education Plan proposes that all students who graduate from UCI should have a basic set of abilities in writing, information literacy, quantitative or computational reasoning, and language other than English. General Education should empower students to be effective communicators, able to evaluate qualitative and quantitative arguments and to solve problems using scientific evidence and analysis.
In particular, the revised CEP GE Plan meets these goals as follows

- It retains the writing requirement (Category I) and the requirement in a language other than English (Category VI) in their current form.
- It broadens Category V somewhat, from mathematics and symbolic systems to quantitative, symbolic, and computational reasoning, and it removes the mandate that those three courses form a sequence.

**Foundations of Knowledge**

The second area focuses on subject matter knowledge. It categorizes courses based on their content rather than on the academic unit offering the course. Each of the three categories is broader than the corresponding current category: Category II, now Natural Sciences, becomes Science and Technology; Category III’s title remains Social and Behavioral Sciences, but the category includes many more courses; Category IV, now Humanistic Inquiry, becomes Arts and Humanities. This, along with reducing requirements for sequencing, will provide students with much greater flexibility and variety in choosing their GE courses. Yet the CEP GE Plan does not go as far as the Task Force proposal, whose “four threes” approach might have allowed, for example, any course offered in the Schools of the Arts or Humanities to satisfy breadth in that category.

We anticipate that nearly all of the courses that satisfy the current breadth requirement would also satisfy the CEP GE requirement, though not always in the same category, and many additional courses will also satisfy GE. A plan for identifying those courses appears below.

Some courses are interdisciplinary and will necessarily fall on the border between two foundations (subject-matter) categories. With appropriate approvals, we contemplate that such courses may be used to satisfy either of the two foundations categories (but not both foundations categories with a single course).

In addition, CEP follows the Task Force in enthusiastically endorsing innovative curricular options for first-year students that bring knowledge from several GE areas into contact, including the existing Humanities Core Course as well as newly developing sequences under DUE’s First-Year Integrated Program (FIP).

**Qualities of Educated Citizens**

The CEP General Education Plan, following significant comment on the Task Force report, reaffirms the value of multicultural and international perspectives in a contemporary education. It retains a requirement for one course of each type. CEP also believes that active, experience-based learning is an essential part of a liberal arts education and adds a requirement that at least one course in a student’s undergraduate career be either laboratory or performance based. This is defined broadly to include, for
example, study abroad (EAP), field research, academic internships, and academic courses with a service learning component. Many courses that satisfy GE requirements in the other categories or requirements in a student’s major will carry the multicultural or international designations (as they do under the current breadth requirement) or the lab/performance designation. CEP expects and encourages students to use these multiply-designated courses as appropriate to provide extra flexibility in their programs. Courses within the Foundations of Knowledge and the major may also satisfy the lab or performance requirement, so most students will not have to take additional courses to fulfill this requirement. CEP agreed that General Education in the 21st century, especially at a public university, should provide opportunities for students to reflect on the ethical consequences of knowledge-production and action. Rather than focusing coverage of ethical issues on specific required courses, and thus decontextualizing them, CEP encourages the faculty responsible for each major program to address the ethical implications of their subject matter as appropriate in their curricula.
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[1] Three quarters are required; all students have the equivalent of two quarters from high school, and most already have three.
[2] The student must take three courses in each of the two categories outside the category containing the student's major, plus any three courses on campus that don't satisfy major requirements.
[3] Overlap allowed with other breadth courses.

In all three plans, some overlap with other requirements may reduce the number of breadth- or GE-only courses by as many as 10 courses.
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The general education requirements are intended to help undergraduates place the specialized study undertaken in the major within a broader context. They are designed to cultivate skills, knowledge, and understanding that will make students effective contributors to society and the world. The general education requirements should enable UCI undergraduates to apply the abilities developed in their studies to identify significant issues, gather and evaluate available evidence, analyze alternatives, reach conclusions, communicate the results effectively, and take considered actions.

The general education requirement is a graduation requirement and, with the exception of the lower-division writing requirement, need not be satisfied during only the lower-division years. To satisfy the general education requirement, courses are required in each of the following categories:

I. **Writing** (2 lower-division plus 1 upper-division course)
II. **Science and Technology** (3 courses)
III. **Social and Behavioral Sciences** (3 courses)
IV. **Arts and Humanities** (3 courses)
V. **Quantitative, Symbolic, and Computational Reasoning** (3 courses)
VI. **Language Other Than English** (3 courses)
VII. **Multicultural Studies** (1 course that may also satisfy another GE requirement)
VIII. **International/Global Issues** (1 course that may also satisfy another GE requirement)
IX. **Laboratory or Performance** (1 course that may also satisfy another GE requirement)

The specific courses in each area that students may use to satisfy the requirements are listed below. When a general education course is cross-listed with another course, that course also is available for fulfillment of the requirement. Students should refer to the catalogue descriptions of the courses to determine which are cross-listed.

A course qualifies for a particular GE category based on its content rather than on the academic unit that offers it. However, to increase students’ exposure to a variety of disciplinary approaches, students are encouraged to choose GE courses from a wide range of schools and departments outside of the student’s major.
GENERAL EDUCATION CATEGORIES

1. Writing

Because of the importance of writing in every academic discipline, in the professions, and in public life, the University is committed to developing the writing abilities of its students at all levels and in all areas. The Writing Requirement expresses this commitment, but the concern for and attention to clear, accurate writing is expected in all courses.

The Writing Requirement consists of two courses at the lower-division level beyond the UC Entry Level Writing requirement and one upper-division course in a discipline.

Except where otherwise noted below, students must satisfy the UC requirement prior to fulfilling the UCI Writing Requirement. Students who have not completed the lower-division writing requirement before the beginning of their seventh quarter at UCI will be subject to probation. Students transferring to UCI normally should have satisfied the lower-division writing requirement before entering UCI; if, however, they have not, they must complete it within their first three quarters of enrollment or they will be subject to probation. Academic English/English as a Second Language students must complete the lower-division writing requirement before the beginning of the seventh quarter following the completion of their AE/ESL courses or they will be subject to probation. The third course must be an upper-division writing course, and it must be taken only after the successful completion of the lower-division requirement. Students enrolled at UCI may take only UCI courses in satisfaction of the lower-division and upper-division writing requirements. Continuing UCI students may not take summer courses at another institution to satisfy lower-division or upper-division writing requirements.

Lower-Division Requirement: The two courses taken to fulfill the lower-division requirement must be completed with a minimum grade of C (or a Pass or Credit grade equivalent to C). Students may select from the courses specified below:
1. English WR 39B (Critical Reading and Rhetoric) and WR 39C (Argument and Research).
2. English WR 37 (Intensive Writing) and WR 39C (Argument and Research). Recommended students only.
3. Two quarters of the writing component of the Humanities Core Course (Humanities 1A-B-C) beyond satisfaction of the UC Entry Level Writing requirement. NOTE: Students held for the UC Entry Level Writing requirement and enrolled in the Humanities Core must enroll in a section of the Core Course designated S/A during their first quarter. Successful completion of the writing component of these sections of this course with a letter grade of C or better will satisfy the UC Entry Level Writing requirement. (The Pass/Not Pass grade option may not be used to satisfy it.) For these students, the UCI lower-division writing requirement may be satisfied only in the second and third quarters of the Humanities Core Course. Students who
do not receive a C or better in Humanities 1A S/A in fall quarter and continue to be held for the UC Entry Level Writing requirement must enroll in Humanities 1B S/A during the winter quarter and satisfy the requirement by earning a letter grade of C or better. The lower-division writing requirement will be satisfied in the second and third quarters of the Humanities Core Course for these students.

4. Students who complete English WR 37 or WR 39B with a grade of B (3.0) or better may substitute as the second course of the lower-division writing requirement one of the following courses in creative writing or nonfiction and journalism: English WR 30, WR 31, or WR 38.

5. English WR 39B and University Studies 11A-B-C or 12A-B-C, with a grade of C (or Pass) or better in 11C or 12C.

Upper-Division Requirement: The course taken to fulfill the upper-division requirement must be completed with a minimum grade of C (or a Pass or Credit grade equivalent to C). The requirement may be completed by completing any one of the following:

1. An upper-division course designated on a list of approved courses in the quarterly WebSOC, Searchable Schedule of Classes (http://www.reg.uci.edu) as approved for satisfaction of the requirement. NOTE: All courses approved to fulfill the upper-division writing requirement should have a "W" suffix. Students are encouraged to consult the Searchable Schedule of Classes or their advisor to determine the current upper-division writing requirement course offerings. If a course on the approved list is offered without the "W" suffix, it does not satisfy the upper-division writing requirement.

2. English WR 139W.

3. English WR 109, WR 110, WR 111, or WR 113. Consent of instructor is required. Students may not use such a course to satisfy the requirement unless they have attained a B or better in both courses taken to satisfy the lower-division writing requirement.

Students who fail to attain the required grades in the courses taken in fulfillment of the writing requirement should refer to the Academic Regulations and Procedures section for further information.
II. Science and Technology

Understanding the nature of scientific inquiry and the operation of the biological, physical, and technological world is essential for making personal and public policy decisions in a technological society.

Students must complete three courses from the list below: [Note: This is only a partial list. It consists of courses that already satisfy the current breadth requirement in the corresponding category. Departments may propose additional courses to satisfy the new GE requirement. These will be reviewed before the Fall 2008 effective date of the CEP GE Plan.]

**Biological Sciences 10 The Biology of Human Diseases (4).** Lecture, three hours. Introduction to concepts of diagnosis, treatment, and prevention of major human infectious diseases. Covers some aspects of epidemiology. Scope and impact of infectious diseases in the present and past experiences in controlling infectious disease. Reviews the biology of human organ systems. Open to nonmajors only. (II)

**Biological Sciences 11 Topics in Biological Sciences (4) F, W, S.** Lecture, four hours. Studies in selected areas of biological sciences. May be taken for credit three times as topics vary. (II)

**Biological Sciences 12A Human Reproduction and Development (4).** Lecture, three hours. Provides detailed insight into human reproduction and development. Reproductive topics include anatomy/physiology of the adult reproductive systems, infertility, and STDs. Development topics include gamete formation, fertilization, fetal development, and birth. Human genetic diseases and developmental disorders also discussed. (II)

**Biological Sciences 12C Neurobiology of Behavior (4).** Lecture, three hours. Examines how animals ranging from insects to mammals have evolved neural solutions to specific problems posed by their environments. Principles derived from research findings draw on the fields of animal behavior, cellular physiology, anatomy, genetics, and molecular biology. (II)

**Biological Sciences 12D Molecular Basis of Human Disease (4).** Lecture, three hours; discussion, one hour. Introduction to the concepts of the cellular and molecular basis, treatment, and diagnosis of human disease. Diseases resulting from infectious agents such as virus, bacteria, protozoan and metazoan animals, and diseases resulting from genetic disorders discussed in context of molecular mechanisms. (II)

**Biological Sciences 15 Botany (4) F.** Lecture, three hours. Structure and function of flowering plants related to their roles in ecology and human needs. (II)

**Biological Sciences 16 Introduction to Darwinian Biology (4) W.** Lecture, three hours. An introduction to the basic concepts of ecology, evolution, and functional biology suitable for non-scientists. Open to nonmajors only. No credit given for Biological Sciences 16 if taken after Biological Sciences E106. (II)

**Biological Sciences 1A-B Life Sciences (4-4) F, W, S.** Lecture, three hours. A two-quarter integrated sequence designed to introduce nonmajors to the basic concepts of modern biology. 1A: Discussion of evolutionary biology, ecology, molecular biology, and genetics. 1B: Cell and behavioral biology including plant structure and function,
photosynthesis, and animal physiology. Prerequisite for 1B: Biological Sciences 1A.
Open to nonmajors only. (II)

**Biological Sciences 20 California Natural History** (4) F. Lecture, three hours.
Introduction to ecological relationships within a variety of California habitats. Explores aspects of the physical environments and the adaptations of organisms to their physical and biological surroundings in habitats such as the coastal zone, mountains, and deserts.

(II)

**Biological Sciences 35 The Brain and Behavior** (4). Lecture, three hours. Introduction to how the brain works. Biological processes underlying perception, movement, sleep-wake cycles, motivation, language, learning, and memory. Changes in the brain associated with sex differences, drug use, aging, seasons, and time of day. Fundamental properties of the nervous system. Open to nonmajors only. (II)

**Biological Sciences 36 Drugs and the Brain** (4). Lecture, three hours. Introduction to the actions of drugs on the brain. How studying drug action helps to reveal normal functions of neurons. How drugs can correct neural disorders or disrupt neural function. Biological issues related to drug abuse, drug addiction, and drug seeking. Open to nonmajors only. (II)

**Biological Sciences 37 Brain Dysfunction and Repair** (4). Lecture, three hours. Introduction to the disruptions in brain function that underlie disorders such as Alzheimer’s disease, Parkinsonism, schizophrenia, and depression, and the basis for drug therapies. The brain’s ability to repair itself after damage and the pros and cons of that repair. Open to nonmajors only. (II)

**Biological Sciences 38 Mind, Memory, Amnesia, and the Brain** (4) S. Lecture, three hours. Introduction to neural mechanisms underlying learning and memory. Emphasis on molecular changes that mediate memory as well as structures involved in different forms of memory. Additionally, the biology of memory phenomena, from extraordinary memory to false memory to amnesia is examined. Open to nonmajors only. (II)

**Biological Sciences 45 AIDS Fundamentals** (4) F, W. Lecture, three hours; discussion, three hours. Considers the biological and sociological bases of the AIDS epidemic. Topics include the history of AIDS, current medical knowledge, transmission, risk reduction, and how the community can respond. Same as Environmental Analysis and Design E45U. (II)

**Biological Sciences 5 Introduction to Molecular Biology** (4). Lecture, three hours. Molecules of life, with emphasis on medical applications. Open to nonmajors only. No credit given for Biological Sciences 5 if taken after Biological Sciences 99. (II)

**Biological Sciences 55 Introduction to Ecology** (4). Lecture, three hours. Principles of ecology; application to populations, communities, ecosystems, and humans. Open to nonmajors only. No credit given for Biological Sciences 55 if taken after Biological Sciences 96 or E106. (II)

**Biological Sciences 6 Tropical Biology: Race to Save the Tropics** (4). Lecture, three hours. Population growth combines with tropical resource consumption by industrialized nations to cause high rates of deforestation, pollution, habitat fragmentation, and extinction of species. Discusses tropical biomes, their population, community, and ecosystem processes, and possible means of conservation of biodiversity. (II)

**Biological Sciences 65 Biodiversity and Conservation** (4) W. Lecture, three hours. A biological perspective on the current environmental crisis. The origin, evolution, and
value of biological diversity. Extinction and depletion caused by overexploitation, habitat loss, and pollution. Conservation through habitat preservation and restoration, captive breeding, cryopreservation. (II)

**Biological Sciences 75 Human Development: Conception to Birth (4)** W, S. Lecture, three hours. Processes leading to the birth of a healthy child and the avoidance of birth defects. Male and female reproductive systems, hormonal control of egg-sperm formations, sexual intercourse, contraception, venereal diseases, fertilization, cell division, embryonic development, fetal physiology. Open to nonmajors only. (II)

**Biological Sciences 8A Human Genetics (4)** S. Lecture, three hours; discussion, one hour. This survey course in human genetics includes an introduction to basic genetic concepts including family studies, chromosomes, molecular genetics of human disease, and an analysis of the Human Genome Project. Special emphasis is given to ethical and social issues. (II)

**Biological Sciences 93 From DNA to Organisms (4)** F. Lecture, three hours; discussion, one hour. Cell biology, biochemistry, genetics, and the biology of organ systems. Covers concepts of building blocks (nucleotides, amino acids, and cells) and of information flow (DNA to proteins, receptors to nuclei, the blood to distant organs, and DNA to offspring). No credit given for Biological Sciences 93 if taken after Biological Sciences 97 and/or 98. (II)

**Biological Sciences 94 From Organisms to Ecosystems (4)** W. Lecture, three hours; discussion, one hour. Patterns of diversity, ecology, and evolutionary biology. Emphasis is on the Tree of Life and how its members are distributed and interact. Prerequisite: Biological Sciences 93. No credit given for Biological Sciences 1A if taken after Biological Sciences 94. (II)

**Biological Sciences 9A Nutrition Science (4)** F, W. Lecture, three hours. An introduction to nutrition science, integrating concepts from biology, biochemistry, microbiology, physiology, and psychology to explain the interaction between nutrients and the human body. Biological basis of nutrient standards is analyzed. Effects of nutrition, behavior, exercises on health/disease. (II)

**Biological Sciences 9B Biology and Chemistry of Food and Cooking (4)** W. Lecture, three hours. The kitchen is used as a laboratory to introduce fundamental principles of biology, chemistry, and physics. A molecular/cellular analysis of cooking, including concepts such as protein structure, browning reactions, colloids, emulsions, carbohydrate metabolism, and development of flavor/texture through biochemical transformations. (II)

**Biological Sciences 9C Biotech Basics (4)**. Lecture, three hours. An overview of current biotechnology. Discusses the biological/molecular basis of novel therapies for diseases, modification of human genes, human genome project, cloning, DNA fingerprinting, and genetically modified food. Targeted for students interested in modern breakthroughs in biology. (II)

**Biological Sciences 9D Diseases of the Twenty-First Century (4)** F. Lecture, three hours. Why do we get sick? An introduction to the biological basis of human disease, including diseases of the cardiovascular, respiratory, nervous, and reproductive systems. Case studies present diagnosis, treatment, and prevention protocols. Inheritable and infectious diseases also discussed. (II)

**Biological Sciences 9E Horticulture Science (4)**. Lecture, two hours; laboratory, two hours; field work, one weekend day per quarter. Scientific principles of horticulture at the
UCI Arboretum. Taxonomy, plant life history strategies; experiments with seed dormancy; morphological adaptations for specialized sexual and clonal reproduction; basics of plant propagation and ecological restoration. Laboratory fee. (II)

**Biological Sciences 9F Current Issues in Biology: A Problem-Based Learning Approach (4).** Seminar, three hours. Students explore in-depth several complex biological and interdisciplinary issues using problem-based learning. The main techniques for learning course material are group discussion, research, projects, and presentations. Attendance and group participation are mandatory. Prerequisites: Biological Sciences 1A-B or Biological Sciences 94 and 96. (II)

**Biological Sciences 9G Way Your Body Works (4).** Lecture, three hours. An introduction to the basic mechanisms that control the organ systems of the human body, including the nervous, cardiovascular, immune, and reproductive systems. Emphasis is on how the body works normally, but includes how these processes fail in disease. (II)

**Biological Sciences 9J Biology of Oriental Medicine (4) W.** Lecture, three hours. With lectures, demonstrations, and hands-on learning, the theory and practice of herbal medicine, acupuncture, qigong, and manipulative therapies are explained in Western biomedical terms. The latest basic and clinical research advances in each area are also described. Only one course from Biological Sciences 9J, 9H, and 9N may be taken for credit. (II)

**Biological Sciences 9K Global-Change Biology (4) W.** Lecture, three hours; discussion, one hour. Addresses ways in which humans are altering the global environment, with consequences for the ecology of animals, plants, and microbes. Discussion on how these biologically oriented questions relate to human society, politics, and the economy. Same as Earth System Science 13. (II)

**Biological Sciences 9M The Biosphere (4) W.** Lecture, three hours; discussion, one hour. An introduction to the role of biological processes in the Earth system. Topics span the functioning of cells, organisms, ecosystems, and the global biosphere, including an introduction to evolution, terrestrial and marine organismal biology, and principles of ecology and biogeochemistry. Same as Earth System Science 9. (II)

**Biological Sciences 9N Introduction to Complementary and Alternative Medicine (4) Summer.** Lecture, three hours. Basic and clinical research on complementary and alternative therapies (e.g., herbal medicine, mind-body practices, energy medicine, acupuncture, homeopathy, chiropractic, Ayurveda), and how such practices are integrated into Western medicine are discussed. Includes lectures, demonstrations, and hands-on learning. Only one course from Biological Sciences 9N, 9J, and 9H may be taken for credit. (II)

**Biological Sciences H90 The Idiom and Practice of Science (4).** The importance of biological sciences in our world are discussed. Topics may include brain and behavior, health and disease, genetics and society, and conservation biology. A primary goal is to encourage students to understand better the world in which they live. Prerequisite: restricted to members of the Campuswide Honors Program. (II)

**Chemistry 1A-B-C General Chemistry (4-4-4); 1A (F, W, Summer), 1B (W, S, Summer), 1C (S, Summer, F).** Lecture, three hours; discussion, one hour. Stoichiometry, properties of gases, liquids, solids, and solutions; chemical equilibrium, chemical thermodynamics; atomic and molecular structure; chemical kinetics, periodic properties and descriptive chemistry of the elements. Corequisite: concurrent enrollment
in the corresponding laboratory courses. Prerequisite for Chemistry 1A: high school chemistry and one of the following: a passing score on the UCI Chemistry Placement Examination or a grade of C or better in Chemistry 1P; for Chemistry 1B and 1C, a grade of C- or better in all previous courses in the sequence. Chemistry 1A-B-C and Chemistry H2A-B-C may not both be taken for credit. (II)

Chemistry 1LA General Chemistry Laboratory for Chemistry and Engineering Majors (1) F, W. Laboratory, three hours. Training and experience in basic laboratory techniques through experiments related to lecture topics in Chemistry 1A. Open to Chemistry and Engineering majors only. Prerequisite: concurrent enrollment or successful completion of Chemistry 1A. NOTE: Chemistry 1LA is open to Chemistry and Engineering majors only. Chemistry 1LA and Chemistry H2LA may not both be taken for credit. (II)

Chemistry 1LB-LC General Chemistry Laboratory (2-2); 1LB (W, S), 1LC (S, Summer, F). Discussion, one hour; laboratory, four hours. Training and experience in basic laboratory techniques. Chemical practice and principles illustrated through experiments related to lecture topics in Chemistry 1A-B-C. Corequisite for Chemistry 1LB and 1LC: concurrent enrollment in the corresponding segment of Chemistry 1. Prerequisite for Chemistry 1LB: a grade of C- or better in Chemistry 1A or Chemistry 1A and 1LA. Prerequisite for Chemistry 1LC: a grade of C- or better in Chemistry 1B and 1LB. Chemistry 1LB-LC and H2LB-LC may not both be taken for credit. (II)

Chemistry 1LE Accelerated General Chemistry Laboratory (3) F, W, Summer. Discussion, two hours; laboratory, four hours. Lecture and experiments covering chemical concepts for accelerated students who do not plan to take organic chemistry. Properties of gases, liquids, solutions, and solids; chemical equilibrium, chemical thermodynamics; atomic and molecular structure; chemical kinetics; electrochemistry. Corequisite: Chemistry 1A or 1B. Prerequisite: Chemistry placement examination or a grade of C or better in Chemistry 1P. (II)

Chemistry H2A-B-C Honors General Chemistry (4-4-4) F, W, S. Lecture, three hours; discussion, one hour. Covers the same material as Chemistry 1A-B-C but in greater depth. Additional topics included as time permits. Corequisite: concurrent enrollment in the corresponding quarter of Chemistry H2LA-LB-LC. Prerequisite for H2A: membership in the Campuswide Honors Program, or a score of 4 or 5 on the Chemistry Advanced Placement Examination, or a score of 700 or better on the SAT II in Chemistry, or a qualifying score on the UCI Chemistry Placement Examination, or consent of instructor. Prerequisite for H2B-H2C: grade of B or better in preceding course in series. Chemistry H2A-B-C satisfies the same requirements and prerequisites as Chemistry 1A-B-C; corresponding segments may not both be taken for credit. (II)

Chemistry H2LA-LB-LC Honors General Chemistry Laboratory (2-2-2) F, W, S. Laboratory, three hours (H2LA), four hours (H2LB-LC). Training and experience in basic laboratory techniques through experiments related to lecture topics in Chemistry H2A-B-C. Corequisite: concurrent enrollment in the corresponding segment of Chemistry H2A-B-C. Prerequisites: membership in the Campuswide Honors Program, or a score of 4 or 5 on the Chemistry Advanced Placement Examination, or a score of 700 or better on the SAT II in Chemistry, or a qualifying score on the UCI Chemistry Placement Examination, or consent of instructor. Chemistry H2LA-LB-LC and Chemistry 1LA-LB-LC may not both be taken for credit. (II)
Chemistry H90 The Idiom and Practice of Science (4). Lecture, three hours; discussion, two hours. A series of fundamental and applied scientific problems are addressed, illustrating the pervasive role of mathematical analysis. Topics may include thermodynamics, chemical equilibria, acid-base chemistry, kinetics, states of matter, electronic structure of atoms and the periodic table, chemical bonding, spectroscopy, and topics from organic, atmospheric, and biochemistry. Open only to members of the Campuswide Honors Program or consent of instructor. (II)

Chemistry M2LA-LB-LC Majors General Chemistry Laboratory (2-2-2) F, W, S. Discussion, one hour; laboratory, four hours. Training and experience in basic laboratory techniques through experiments related to lecture topics in Chemistry 1A-B-C. Corequisite: concurrent enrollment in the corresponding segment of Chemistry 1A-B-C. Prerequisite: Chemistry Placement Examination or a grade of C or better in Chemistry 1P. Open to Chemistry majors only. (II)

Earth Systems Science 1 The Physical Environment (4) F. Covers the origin and evolution of the Earth, its atmosphere, and oceans, from the perspective of biogeochemical cycles, energy use, and human impacts on the Earth system. (II)

Earth Systems Science 11 Climate Change and Policy (4). Develops an understanding of the physical basis behind global climate change; examines how human activities cause it, looks to future rates and impacts of global warming, and reviews the international conventions, protocols, and scientific assessments of climate change. (II)

Earth Systems Science 13 Global-Change Biology (4) W. Addresses ways in which humans are altering the global environment, with consequences for the ecology of animals, plants, and microbes. Discussion on how these biologically oriented questions relate to human society, politics, and the economy. Same as Biological Sciences 9K. (II)

Earth Systems Science 15 Atmospheric Pollution, Ozone, and Climate (4) S. Air pollution occurs on global, continental, and urban scales. We pollute the atmosphere in different ways. Its consequences on the quality of the air we breathe, health of our ecosystems, ozone layer depletion, and changes in our climate are studied. (II)

Earth Systems Science 3 Oceanography (4) S. Examines circulation of the world oceans and ocean chemistry as it relates to river, hydrothermal vent, and atmospheric inputs. Geological features, the wide variety of biological organisms, and global climate changes, such as greenhouse warming, are also studied. (II)

Earth Systems Science 5 The Atmosphere (4) W. The composition and circulation of the atmosphere with a focus on explaining the fundamentals of weather and climate. Topics include solar and terrestrial radiation, clouds, and weather patterns. (II)

Earth Systems Science 7 Geology (4) W. Basic geologic principles; teaches students how to interpret earth history from landforms and the rock record, understand volcano and earthquake risks, and recognize the distribution of resources. The geologic time scale, fossil record, and major events in earth history are explored. (II)

Earth Systems Science 9 The Biosphere (4) W. An introduction to the role of biological processes in the Earth system. Topics span the functioning of cells, organisms, ecosystems, and the global biosphere, including an introduction to evolution, terrestrial and marine organismal biology, and principles of ecology and biogeochemistry. Same as Biological Sciences 9M. (II)

Earth Systems Science H90 The Idiom and Practice of Science (4). A series of fundamental and applied scientific problems are addressed, illustrating the pervasive role
of mathematical analysis. Topics may include energy utilization, the climate system, the 
"greenhouse effect," ozone depletion and air pollution, ecological consequences of water 
pollution, nutrient cycles. Open only to members of the Campuswide Honors Program or 
consent of instructor. (II)

Engineering 5 Exploring the Engineering Mind: Building Bicycles (4). Structured to 
introduce students to the engineering mind—how engineers analyze problems and design 
solutions. Topics include how materials work, how nature designs materials (such as 
seashells and eggshells), and how engineers design using the example of the bicycle. May 
not be taken by Engineering students to fulfill major requirements. (II)

Physics 16 International Studies Physics of Weapons and Their Control (4). Lecture, 
three hours. Introduction to physics related to issues of peace and conflict. Topics 
include: nuclear and non-nuclear weapons, delivery systems, missile defense systems, 
satellite surveillance systems, technology for homeland security, and arms control. Same 
as Physics 16. (II)

Physics 14 Physics of Energy and the Environment (4). Lecture, three hours. The 
physics of society's energy production and consumption, and of their influences on the 
environment. Topics include fossil and renewable energy resources; nuclear power; 
prospects for a hydrogen economy; efficient and environmentally benign transportation; 
efficient home and commercial energy usage. (II)

Physics 15 Physics of Music (4). Lecture, three hours. Introduces basic physical 
principles underlying generation and properties of music, including basic properties of 
sound waves, musical scales and temperament, musical instruments, and acoustics of 
music halls. No mathematics background required, but high school algebra is 
recommended. (II)

Physics 16 Physics of Weapons and Their Control (4). Lecture, three hours. 
Introduction to physics related to issues of peace and conflict. Topics include: nuclear 
and non-nuclear weapons, delivery systems, missile defense systems, satellite 
surveillance systems, technology for homeland security, and arms control. Same as 
International Studies 16. (II)

Physics 17 Physics of Athletics (4). Lecture, three hours. Introduces basic physical 
principles behind motion. Examples are drawn from a range of athletic endeavors (such 
as ice skating, baseball, diving, and dance). No mathematics background required, but 
high school algebra is recommended. (II)

Physics 18 How Things Work (4) S. Lecture, three hours. Survey of the physical basis 
of modern technology, with an emphasis on electronics and materials. Topics include 
power generation and distribution, communication (radio, TV, telephone, computers, tape 
recorders, CD players), imaging (optics, x-rays, MRI), and modern materials (alloys, 
semiconductors, superconductors, polymers, ceramics, liquid crystals). (II)

Physics 19 Great Ideas of Physics (4). Lecture, three hours. Introduces nonscience majors to physics, examining important breakthroughs and controversies. Potential topics: Einstein's Relativity; Heisenberg's Uncertainty Principle; black holes; extra-dimensions; antimatter. Case studies illustrate the essential nature of scientific review and independent confirmation of results. No mathematics background required. (II)

Physics 20A Introduction to Astronomy (4) F, S. History of astronomy. Underlying 
physics. Objects in the solar system and how they are studied. Properties of stars: their 
formation, structure, and evolution. Pulsars and black holes. Galaxies and quasars. (II)
Physics 20B Cosmology: Man's Place in the Universe (4) W. "Cook's Tour" of the universe. Ancient world models. Evidence for universal expansion; the size and age of the universe and how it all began. The long-range future and how to decide the right model. Anthropic principle. (II)

Physics 20C Observational Astronomy (4). Lecture, three hours; discussion, one hour. Fundamental observational techniques used in astronomy, including the analysis and interpretation of images and spectra that allow students to determine orbits of planets and moon, time evolution of supernovae, ages of star clusters, Hubble's Law. Naked-eye observations of the night sky. Observations of stars and galaxies with the UCI 24-inch telescope. Current events in observational astronomy. Prerequisites: Physics 20A, 20B. (II)

Physics 20D Space Science (4) S. Motions of planets, satellites, and rockets. Propulsion mechanisms and space flight. The solar radiation field and its influence on planets. The interplanetary medium, solar wind, and solar-terrestrial relations. (II)

Physics 21 Special Topics in Physics (4). Lecture, three hours. Topics vary. Past topics have included physics and music, Newton, planetary science. Lectures on areas of special interest in physics are used to introduce students to scientific method, fundamental laws of science, qualitative and quantitative analysis of data. May be repeated for credit as topics vary. (II)

Physics 3A-B-C Basic Physics (4-4-4) F, W, S, Summer. Lecture, three hours; discussion, one hour. 3A: Vectors; motion, force, and energy. 3B: Fluids; heat; electricity and magnetism. 3C: Waves and sound; optics; quantum ideas; atomic and nuclear physics; relativity. Prerequisite or corequisite: Mathematics 2A-B. (II)

Physics 3LB Basic Physics Laboratory (1.5) W, S, Summer. Laboratory, three hours. Practical applications of electronics and classical physics to biology. Goals include skill to use oscilloscope and other basic instrumentation. (II)

Physics 3LC Basic Physics Laboratory (1.5) S, Summer, F. Laboratory, three hours. Practical applications of physics to medical imaging. Topics include optics, radioactivity, and acoustics. Prerequisite: Physics 3LB. (II)

Physics 7A-B-D Classical Physics (4-4-4) F, W, S; W, S, Summer. Lecture, three hours; discussion, one hour. 7A: Units; vectors; motion; momentum; force. 7B: Energy; rotation and gravity. 7D: Electricity and magnetism. Corequisites for 7A-B-D: corresponding quarters of Physics 7LA-LB-LD; Mathematics 2A-B and 2C or 2D. Physics 7A and Physics 1 may not both be taken for credit. (II)

Physics 7E Classical Physics (4) F, Summer. Lecture, three hours; discussion one hour. Fluids; oscillations; waves; and optics. Prerequisites: Physics 7B, Mathematics 2B. (II)

Physics 7LA-LB-LD Classical Physics Laboratory (1-1-1) F, W, S; W, S, Summer. Laboratory, two hours. Experiments related to lecture topics in Physics 7A-B-D. Corequisite: corresponding quarter of Physics 7A-B-D. (II)

Planning, Policy, and Design 45 AIDS Fundamentals (4). Lecture, three hours; discussion, one hour. Considers the biological and sociological bases of the AIDS epidemic. Topics include the history of AIDS, current medical knowledge, transmission, risk reduction, and how the community can respond. Same as Biological Sciences 45 and Public Health 80. (II)

Public Health 80 AIDS Fundamentals (4). Lecture, three hours; discussion, one hour. Considers the biological and sociological bases of the AIDS epidemic. Topics include the
history of AIDS, current medical knowledge, transmission, risk reduction, and how the community can respond. Same as Biological Sciences 45 and Planning, Policy, and Design 45. (II)
III. Social and Behavioral Sciences

Courses will focus on principles, sources, and interpretations of human behavior and on how people organize, govern, understand, and explain social life. This category includes the analysis of human behavior at all levels, from the individual to collective social, economic, and political life, and on the scientific methods used in the acquisition of knowledge and the testing of competing theories.

Students must complete three courses from the list below: [Note: This is only a partial list. It consists of courses that already satisfy the current breadth requirement in the corresponding category. Departments may propose additional courses to satisfy the new GE requirement. These will be reviewed before the Fall 2008 effective date of the CEP GE Plan.]

**Anthropology 2A Introduction to Sociocultural Anthropology (4).** Introduction to cultural diversity and the methods used by anthropologists to account for it. Family relations, economic activities, politics, gender, and religion in a wide range of societies. Stresses the application of anthropological methods to research problems. (III, VIII)  

**Anthropology 2C Introduction to Archaeology (4).** Archaeological theory and cultural processes with emphasis on the American Southwest, Mesoamerica, and Mesopotamia. (III)  

**Anthropology 2D Introduction to Language and Culture (4).** Explores what the study of language can reveal about ourselves as bearers of culture. After introducing some basic concepts, examines how cultural knowledge is linguistically organized and how language might shape our perception of the world. Same as Linguistics 68. (III)*

**Asian American Studies 60A Introduction to Asian American Studies I (4).** Examines and compares the diverse experiences of major Asian American groups since the mid-nineteenth century. Topics include: origins of emigration; the formation and transformation of community; gender and family life; changing roles of Asian Americans in American society. Same as History 15C and Social Science 78A. (III, VII)*

**Asian American Studies 60B Introduction to Asian American Studies II (4).** Examines the renewal of Asian immigration following World War II. Focuses on domestic and international conditions influencing the liberalization of U.S. immigration laws, and the impact of contemporary Asian immigration on the U.S. political economy and social order. Same as Social Science 78B. (III, VII)*

**Asian American Studies 60C Introduction to Asian American Studies III (4).** Examines selected substantive, methodological, and/or theoretical issues in Asian American Studies. Possible topics include interracial dating and marriage, electoral politics, educational and occupational achievement, participant community research, uses of oral history, underrepresented Asian American ethnic groups and diasporic studies. Same as Social Science 78C. (III, VII)*

**Chicano/Latino Studies 61 Introduction to Chicano/Latino Studies I (4).** Introduces links between culture, history, and sociology of Chicano/Latino communities. Examines the formation, evolution, and adaptation of Chicano/Latino communities within a national and international perspective. Reviews literature on Chicano/Latino Studies as a field of
intellectual inquiry. Formerly Social Science 61. (III, VII)
Chicano/Latino Studies 62 Introduction to Chicano/Latino Studies II (4).
Foundations of Latinos from pre-history to present with emphasis on race, class, gender, and culture. Examines institutions/processes of: indigenous culture; conquests, colonialism/neocolonialism; racialization; capitalist industrialization; immigration; Americanization. History, literary, and artistic materials/texts of Latino subgroups. Formerly Social Science 62. (III, VII)
Chicano/Latino Studies 63 Introduction to Chicano/Latino Studies III (4). An introduction to Chicano/Latino Studies through inter- and intra-group comparisons of various Latino groups in the United States. Issues examined include immigration, political participation and protest, socioeconomic status, gender relations and sexuality, and ethnic and racial discrimination. Formerly Social Science 63. (III, VII)
Chicano/Latino Studies 64 Introduction to Minority Politics (4). Examines major theories that attempt to explain the roles of race and ethnicity in U.S. politics, while also looking at the political attitudes and behaviors of ethnic and racial populations in order to measure their contemporary political influence. Same as Political Science 61A. (III, VII)

Criminology C7 Introduction to Criminology, Law and Society (4). Lecture, three hours. Examines the major biological, sociological, and psychological explanations for crime and links them historically with prevailing systems of punishment. From classical criminology to positivism, investigates the evolution of criminological theories, their cultural and historical contexts, and their strengths and weaknesses. Formerly Criminology, Law and Society 17. (III)

Economics 1 Introduction to Economics (4) F, W, S. An analysis of the problems society faces in organizing itself to provide goods and services. How decisions of government, business, and the individual relate to current economic problems such as unemployment, inflation, poverty, and environmental pollution. Open only to non-Economics majors. Credit will not be given for Economics 1 if taken concurrently or after Economics 20A-B. (III)

Economics 17 An Economic Approach to Religion (4) F. Introduction to how basic economic concepts such as demand, supply, consumption, production, competition, free-riding, innovation, regulation, and rent-seeking can be applied to understand religious behavior. Same as Religious Studies 17. (III)


History 15C Introduction to Asian American Studies I (4). Examines and compares the diverse experiences of major Asian American groups since the mid-nineteenth century. Topics include: origins of emigration; the formation and transformation of community; gender and family life; changing roles of Asian Americans in American society. Same as Asian American Studies 60A and Social Sciences 78A. (III, VII)

Linguistics 10 Introduction to Phonology (4). Basic concepts in phonetic description and phonological analysis. Prerequisite: Linguistics 3. (III or V)

Linguistics 10 Introduction to Phonology (4). Basic concepts in phonetic description and phonological analysis. Prerequisite: Linguistics 3. (III or V)
Linguistics 20 Introduction to Syntax (4). Basic concepts in syntactic description and grammatical analysis. Prerequisite: Linguistics 3. (III or V)

Linguistics 20 Introduction to Syntax (4). Basic concepts in syntactic description and grammatical analysis. Prerequisite: Linguistics 3. (III or V)

Linguistics 3 Introduction to Linguistics (4). Emphasis on the notion that language is a remarkable achievement of the human mind. Current insights into the nature of language. Survey of various subfields of linguistics. Introduction to linguistic analysis. (III or V)

Linguistics 3 Introduction to Linguistics (4). Emphasis on the notion that language is a remarkable achievement of the human mind. Current insights into the nature of language. Survey of various subfields of linguistics. Introduction to linguistic analysis. (III or V)

Linguistics 51 Acquisition of Language (4). What children say, what they mean, and what they understand. Theories about the learning of language by one-, two-, and three-year olds. Comparison of kinds of data on which these theories are based. Same as Psychology 56L. (III)*

Linguistics 68 Introduction to Language and Culture (4). Explores what the study of language can reveal about ourselves as bearers of culture. After introducing some basic concepts, examines how cultural knowledge is linguistically organized and how language might shape our perception of the world. Same as Anthropology 2D. (III)*

Linguistics 80 Introduction to Semiotics. (4). How humans and other animals communicate with each other by means of symbols and other signs. The symbols of everyday life, of movies and literature, of religion and society. Symbolic systems and symbolic evolution. (III)

Logic and Philosophy of Science 4A Scientific Revolutions (4). Explores two central themes: (1) using philosophical analysis to investigate the nature of the social sciences, and (2) using the social sciences themselves to study to nature of science. (III)

Logic and Philosophy of Science 4B Case Studies in Social Science (4). Introduces students to three case studies in three different social science areas in order to show how the social sciences are in fact practiced. (III)

Political Science 21A Introduction to American Government (III)

Political Science 31A Introduction to Political Theory (4). Types of questions: What is politics? What are the theoretical and philosophical bases for different types of political arrangements? How do these perspectives get translated into reality? Among others, the works of Rousseau, Locke, Mill, and Marx are read. (III)

Political Science 41A Introduction to International Relations (4). Analysis of political relations between and among nations with emphasis on explanations of conflict and cooperation. The role of ideologies and their relation to international problems are also examined. (III, VIII)

Political Science 51A Introduction to Comparative Politics (4). Presents various analytical methods used to compare political systems. Emphasis on examination of theories and research with national political systems as units of analysis. Understanding how it is possible to compare political units and make meaningful statements about them. (III)

Political Science 61A Introduction to Minority Politics (4). Examines major theories that attempt to explain the roles of race and ethnicity in U.S. politics, while also looking at the political attitudes and behaviors of ethnic and racial populations in order to measure their contemporary political influence. Same as Chicano/Latino Studies 64. (III,
Political Science 6A Introduction to Political Science: Political Analysis (4). Presents various modes of understanding politics. Emphasis on basic approaches to political analysis, their uses in constructing theories, and their application to particular national political systems. (III, VIII)

Political Science 6B Introduction to Political Science: Macropolitics (III)

Political Science 6C Introduction to Political Science: Micropolitics (III)

Political Science 71A Introduction to Law (4). An introduction to the study of judicial politics. Questions include: what is law?; what is a court?; who are the judges? Analysis of a wide range of judicial decisions illustrates the political importance of courts in the U.S. and elsewhere. (III)

Psychology and Social Behavior P11A, B, C Psychology Fundamentals (4-4-4) F, W, S. Designed to provide freshman Psychology and Social Behavior majors with an in-depth survey of general psychology. Topics include biological bases of behavior, sensation, perception, cognition, development, personality, psychopathology, and social psychology. Same as Psychology 9A, B, C. No credit for Psychology 7A and/or Psychology and Social Behavior P9 if taken after Psychology and Social Behavior P11A, B, C. (III)

Psychology 13T Fundamentals, Pragmatics, and Ethics of Psychological Testing (4). Basic principles of psychological testing including test type, selection, structure, procedure, ethics, cultural factors, and interpretation are presented to better equip potential user, consumer, or interpreter of psychological tests in future personal and professional settings. Prerequisite: Psychology 7A. (III)

Psychology 21A Adolescent Psychology (4). Focuses on psychosocial dynamics of today's adolescents in America emphasizing the quest for identity, independence, values, and sexual orientation. The influence of society, family, school, and peers is analyzed. Strategies for helping troubled adolescents are discussed. Prerequisite: Psychology 7A or 9A-B-C. Psychology 21A and Psychology and Social Behavior P114D may not both be taken for credit. (III)

Psychology 46A Introduction to Human Memory (4). Covers the core concepts of modern research and theorizing about human memory, including structural subdivisions (e.g., perceptual memory, short-term memory, long-term memory), different measures of memory (e.g., recall, reorganization), and some practical applications of memory research (e.g., mnemonics). Prerequisite: Psychology 7A or 9A-B-C. Psychology 46A may not be taken for credit after Psychology 140M or Psychology and Social Behavior P192J. (III)

Psychology 56L Acquisition of Language (4). What children say, what they mean, and what they understand. Theories about the learning of language by one-, two-, and three-year olds. Comparison of kinds of data on which these theories are based. Same as Linguistics 51. (III)*

Psychology 78A Introduction to Social Psychology (4). Studies sociological contributions to theory and research in social psychology, with focus on the social influences on personality, attitudes, beliefs, and behavior; socialization, human groups, and social interaction. Same as Sociology 31. (III)*

Psychology 9A-B-C Psychology Fundamentals (4-4-4) F, W, S. A year-long sequence designed to provide freshman Psychology majors with an in-depth survey of general
psychology. Topics include biological bases of behavior, sensation, perception, cognition, development, personality, psychopathology, and social psychology. Prerequisite: freshman Psychology major; consent of instructor. No credit is given for Psychology 7A if it is taken concurrently with or after 9A, 9B, or 9C. (III)

Religious Studies 17 An Economic Approach to Religion (4). Introduction to how basic economic concepts such as demand, supply, consumption, production, competition, free-riding, innovation, regulation, and rent-seeking can be applied to understand observed religious behavior. Same as Economics 17. (III)

Social Ecology H20A–B–C Honors: Critical Issues in the Social Sciences (6-6-6). Lecture, three hours; seminar, two hours. Major themes, methods, and works in the social sciences from an interdisciplinary perspective. Each quarter focuses on a different topic. Weekly small seminars emphasizing the development of the skills of critical thinking and quantitative analysis through regular written work are integral to the course. Prerequisite: restricted to members of the Campuswide Honors Program. Same as Social Sciences H1E–F–G. (III)

Social Ecology P9 Introduction to Human Behavior (4). Lecture, three hours. Introduction to models of human development and mental health, and the application of the scientific methods to the study of social behavior. Differences among individual, group, and societal levels of analysis and intervention emphasized. (III)

Social Science 18D Models in Economic Geography (4). Economic decision making in a spatial context: the location, distribution, and dynamics of economic activities. Theories of population growth, urbanization, industrial location, interregional trade, and regional planning. (III)

Social Science 1A Principles in the Social Sciences (4) W. Introduction to various disciplines within the social sciences. Provides an interdisciplinary perspective on understanding human behavior and social institutions, including interpersonal, economic, political, and cultural activities. For those students desiring a broad introduction to the social sciences. Formerly Social Science 2A. (III)

Social Science 5A Introduction to Human Geography (4). Human behavior in a geographical context. Spatial patterns and organization of the cultural, social, and economic activities of man as imposed on and influenced by the earth’s physical setting. (III)

Social Science 5C Environment and Resources (4). Analysis of landscapes, with special attention to California and the West. Emphasis on humans as agents of environmental change. (III)

Social Science 70A U.S. Ethnic and Racial Cultures (4). A survey of ethnic and racial groups in the United States, comparing their histories, evolution, and cultural individuality. Emphasis on cultural variations in the U.S. as well as the processes and changes, historical and current, within distinct demographic populations. (III, VII)

Social Science 70B Introduction to Expressive Forms in American Society (4). A survey of the expressive forms of minority culture groups in the United States. Literature, music, visual art, ritual, and folklore are studied, with an emphasis upon understanding their relationship to their social and cultural contexts. (III, VII)

Social Science 70C Comparing Cultures (4). Introduces students to the scope of cross-cultural comparisons by analyzing the theories, methodologies, and facts utilized by anthropologists, sociologists, social psychologists, political scientists, and historians in
comparing cultures. (III, VII)
Social Science 78A Introduction to Asian American Studies I (4). Examines and compares the diverse experiences of major Asian American groups since the mid-nineteenth century. Topics include: origins of emigration; the formation and transformation of community; gender and family life; changing roles of Asian Americans in American society. Same as Asian American Studies 60A and History 15C. (III, VII)*
Social Science 78B Introduction to Asian American Studies II (4). Examines the renewal of Asian immigration following World War II. Focuses on domestic and international conditions influencing the liberalization of U.S. immigration laws, and the impact of contemporary Asian immigration on the U.S. political economy and social order. Same as Asian American Studies 60B. (III, VII)*
Social Science 78C Introduction to Asian American Studies III (4). Examines selected substantive, methodological and/or theoretical issues in Asian American Studies. Possible topics include: interracial dating and marriage, electoral politics, educational and occupational achievement, participant community research, uses of oral history, underrepresented Asian American ethnic groups, and diasporic groups. Same as Asian American Studies 60C. (III, VII)*
Social Science IIIE-F-G Honors: Critical Issues in the Social Sciences (6-6-6) F, W, S. Major themes, methods, and works in the social sciences from an interdisciplinary perspective. Each quarter focuses on a different topic. Weekly small seminars emphasizing the development of the skills of critical thinking and quantitative analysis through regular written work are integral to the course. Prerequisite: restricted to members of the Campuswide Honors Program. Same as Social Ecology H20A-B-C. (III)*
Sociology I Introduction to Sociology (4). Major concepts and approaches to the study of society: social interaction, social differentiation, social control, social change, social institutions. (III)
Sociology 2 International Sociology (4). Introduces international sociology by examining international social structures and processes. Attention to international migration to and from various countries around the world, and to theories and research about the determinants of international migration for both sending and receiving countries. (III, VIII)
Sociology 23 Understanding Social Facts (4). Focus on perspectives toward the question of what constitutes sociological knowledge and processes through which competent investigators have built sociological arguments from data. Examination of several types of research techniques. (III)
Sociology 3 Introduction to Social Problems (4). Focuses on how institutional and organizational features of societies generate problems for people. Particular attention is directed at a set of problems related to political and economic inequality: poverty, racism, sexism, urban and population problems, the environment, the criminal justice system. (III)
Sociology 31 Introduction to Social Psychology (4). Studies sociological contributions to theory and research in social psychology, with focus on the social influences on personality, attitudes, beliefs, and behavior; socialization, human groups, and social interaction. Same as Psychology 78A. (III)*
Sociology 62 Marriage and Families (4). Sociological theories and research on
marriage, kinship, intimacy, and divorce. Emphasis on comparing family patterns in different social classes, ethnic groups, and societies, and on relating family life to the economy and other social institutions. Topics include gender roles, child-rearing, historical change. (III)


Sociology 78 Social Work (4). Provides conceptual tools to understand the social welfare response to need as it has evolved from the seventeenth century to the present. Provides an understanding of the structure of service programs and the history of the organized social work profession. (III)

Women's Studies 60A Gender and Science (4). Examines science from a variety of feminist viewpoints in order to explore how science influences everyday life. Special attention given to the way that science poses questions and pursues answers. Is there such a thing as a "neutral" or gender-free science? (III)

Women's Studies 60B Gender and Law (4). Introduction to the relationship between gender, race, and the law. Critical thinking about how law defines citizenship, political representation, and democracy, focusing on the history of legal reform undertaken in the name of women as a social group. (III)

Women's Studies 60C Gender and Religion (4). Introduces the topic of religion in a feminist context by performing cross-cultural exploration of gender, authority, and faith in various traditions. Study includes (but is not limited to) writings of contemporary Jewish, Christian, and Muslim feminists. (III)
IV. Arts and Humanities

Study of the Arts and Humanities expands the student's sense of diverse forms of cultural expression, past and present. Students develop their critical capacity as they discover how meaning is created and experience variously interpreted.

Students must complete three courses from the list below: [Note: This is only a partial list. It consists of courses that already satisfy the current breadth requirement in the corresponding category. Departments may propose additional courses to satisfy the new GE requirement. These will be reviewed before the Fall 2008 effective date of the CEP GE Plan.]

**Art History 40A Ancient (4) F.** An overview of prehistoric, Egyptian, Greek, and Roman art. Considers how and why the peoples of antiquity created art and architecture, as well as the significance within its social, religious, and historical contexts. (IV, VIII)

**Art History 40B Medieval and Renaissance (4) W.** Focuses on the art of the Mediterranean area and Europe between ca. A.D. 350 and 1600. By means of movements and artists, examines the cultural identities of the Christian, Islamic, and early modern worlds. (IV, VIII)

**Art History 40C Baroque and Modern (4) S.** The visual arts from the seventeenth to the twentieth centuries. Explores the changing social purposes and meaning of painting, sculpture, and architecture in relation to historical events and to the artists who made them. (IV, VIII)

**Art History 42A, B, C History of Asian Art (4, 4, 4) F, W, S.** A one-year survey of painting, sculpture, architecture and other artifacts in various regions of Asia. Starts with prehistory in 42A (fall quarter) and concludes with modern art in the twentieth century in 42C (spring quarter). Topics include neolithic excavations, pan-Asiatic transmissions of art, developments of art in China and Japan. (IV, VIII)

**Arts 1A-B, C Arts Core (4-4-4)** An introduction to the arts in general, and to the arts at UCI. Concentration on (1) the interdisciplinary nature of the arts, (2) the content of particular arts disciplines, and (3) the departments in the UCI School of the Arts. 1B: Topics in Dance and Studio Art. 1C: Topics in Drama and Music. Prerequisite for 1B and 1C: 1A. (IV)

**Classics 36A, B, C The Formation of Ancient Greek Society (4, 4, 4).** An overview of ancient Greek civilization and its interactions with other cultures of the Mediterranean world. Focuses on major institutions and cultural phenomena as seen through the study of ancient Greek literature, history, archaeology, and religion. Same as History 36A, B, C. 36A Early Greece (IV), 36B Late Archaic and Classical Greece (IV); 36C Fourth-Century and Hellenistic Greece (IV) *

**Classics 37A, B, C The Formation of Ancient Roman Society (4, 4, 4).** A survey of the principal aspects of Roman civilization from its beginnings to the so-called Fall of the Roman Empire in C.E. 476. Focuses on political history and ideology, social history, literature, art and architecture, and religion. Same as History 37A, B, C. 37A Origins to Roman Republic (IV), 37B Roman Empire (IV), 37C The Roman Legacy (IV) *

**Classics 45A-B-C Classical Mythology (4-4-4) F, W, S.** An overview of the main myths
of the ancient Greeks and Roman and their influence in literature and art throughout time. Includes readings from ancient and modern sources and utilizes modern technology. 45A The Gods (IV), 45B The Heroes (IV), 45C Ancient and Modern Perspectives of Classical Mythology. Topics vary. (IV)

**Comparative Literature 10 World Literature (4) F, W, S.** Introduction to texts from across the globe and from different historical periods. Readings in English and English translation. May be repeated for credit as topics vary. (IV, VIII)

**Comparative Literature 40A, B, C Development of Drama (4, 4, 4) F, W, S.** Same as Drama 40A, B, C. (IV, VIII) *

**Comparative Literature 60A Reading Across Borders (4) F, W, S.** An introduction to the comparative study of literatures and cultures. Studies literary texts and other media across the borders of various cultures, historical periods, and traditions. All texts are read in English translation. Prerequisite: satisfactory completion of the lower-division writing requirement. Formerly Comparative Literature 50A. (IV)

**Comparative Literature 60B Reading with Theory (4) F, W, S.** Introduction to theory and methods of literary and cultural criticism. Students read and discuss theoretical approaches to literature and culture and ideas that are important in literary and cultural criticism. Marx and Freud, for example, may be studied alongside readings in narrative poetry, film, song lyrics, novel. Prerequisite: satisfactory completion of the lower-division writing requirement. (IV)

**Comparative Literature 60C Reading through Genre and Medium (4) F, W, S.** Focuses on differences that genre and medium (e.g., written, visual, oral) make on the way texts are produced and received—for example, how autobiographies, testimonials, novels, and films construct different images of the self; surrealism in art, poetry, and comics. Prerequisite: satisfactory completion of the lower-division writing requirement. Formerly Comparative Literature 50C. (IV)

**Comparative Literature 9 Introduction to Multiculturalism (4) F, W, S.** Various themes and forms of literary and cultural production within a multicultural framework, including African American, Asian American, Chicano/Latino, and Native American literatures and cultures. May be repeated for credit as topics vary. (IV)

**Comparative Literature 8 Travels in Comparative Literature (4) F, W, S.** Readings in English and in English translation on such topics as love, war, cities, travel writing, politics, fantasy and science fiction, violence. May be repeated for credit as topics vary. (IV)

**Drama 40A, B, C Development of Drama (4, 4, 4) F, W, S.** A one-year lecture-discussion course (each quarter may be taken independently) in the development of Western Drama, concentrating on the drama’s intellectual, social, and artistic foundations. About 10 plays and supplementary critical material are read each quarter. 40A: Greek Drama through Shakespeare. Readings from Aeschylus, Sophocles, Euripides, Aristophanes, Marlowe, Shakespeare, and the anonymous playwrights of the medieval theatre. 40B: Restoration Drama through Ibsen. Readings from Neoclassic, Romantic, and Naturalistic European playwrights in the eighteenth and nineteenth centuries. Molière, Racine, Congreve, Goethe, Ibsen, and Chekhov are included. 40C: Contemporary Drama. Post Naturalistic theatre: Expressionism, Epic Theatre, Theatre of the Absurd, and Contemporary American Theatre. Among the playwrights studied are Stein, Shaw, Pirandello, Ionesco, Beckett, Williams, Brecht, Weiss, Albee, Churchill, and
Duras. Same as Comparative Literature CL 40A, B, C. (IV, VIII) *
East Asian Lang & Lit 55 Introduction to East Asian Cultures (4). Interdisciplinary courses organized each year around a broad theme designed to introduce students to the cultures of East Asia. Topical organization of courses addresses issues that have been of importance historically and are reshaping East Asia today. May be taken three times for credit as topics vary. Formerly East Asian Languages and Literatures 50A, B, C and 60A, B, C. (IV, VIII) [three diff. topics]


English E 6 British Literature to the Renaissance (4) F. Lecture, three hours. Various topics in literature of the Middle Ages and Renaissance in English, such as the heroic, the rise of tragedy, women in literature, literature and nature. Primarily designed for nonmajors. (IV)

English E 7 Literature in English from the Eighteenth to the Twentieth Centuries (4) W. Lecture, three hours. Various topics in literature in English outside the U.S., such as Romanticism, the development of the novel, revolution and industrialism in literature, the literary representation of war. Primarily designed for nonmajors. (IV)

English E 8 American Literature (4) S. Lecture, three hours. Various topics in American literature, such as the literature of colonialism, U.S. literature and popular culture, the New England tradition, the English literature of the Pacific Rim. Primarily designed for nonmajors. (IV)

Film & Media Studies 85A Visual Media and Contemporary Culture (4) F. An introduction to the study of visual media—such as advertising, movies, television, and video—and analysis of their role in contemporary culture. Introduces students to the critical vocabulary of film and television studies. Formerly Film Studies 85A. (IV)

French 50 French Culture and the Modern World (4) F, W, S. Introductory course for non-majors. Focuses on France's role in the modern world and its cultural connections to Asia, the Middle East, Africa, Europe, and the Americas. Taught in English. May be taken for credit three times as topics vary. (IV, VIII) [three diff. topics]

German 50 Science, Society, and Mind (4) F, W, S. Historical, philosophical, and literary reflections by German writers on the rise of the modern sciences. In English. Designed primarily for nonmajors. May be taken three times for credit as topics vary. (IV, VIII) [three diff. topics]

History 21A World History: Beginnings to 1650 (4). Treats major themes of world historical development through the mid-seventeenth century, focusing on the Eurasian world, but with secondary emphasis on Africa and the Americas. (IV, VIII)

History 21B World History: 1650-1870 (4). Examines three major transformations that made the world of 1870 dramatically different from that of 1650: e.g., the scientific revolution, industrialization, and the formation of modern states and nations. (IV, VIII)

History 21C World History Since 1870 (4). Considers several major currents of modern history: technological change and its social effects; changes in gender relations;
totalitarianism; peasant revolutions and the crisis of colonization; international migration; and ecological problems. (IV, VIII)

**History 36 The Formation of Ancient Greek Society.** An overview of ancient Greek civilization and its interactions with other cultures of the Mediterranean world. Focuses on major institutions and cultural phenomena as seen through the study of ancient Greek literature, history, archaeology, and religion. Same as Classics 36A, B, C. 36A Early Greece (4). (IV), 36B Late Archaic and Classical Greece (4). (IV), 36C Fourth-Century and Hellenistic Greece (4). (IV) *

**History 37 The Formation of Ancient Roman Society.** A survey of the principal aspects of Roman civilization from its beginnings to the so-called Fall of the Roman Empire in C.E. 476. Focuses on political history and ideology, social history, literature, art and architecture, and religion. Same as Classics 37A, B, C. 37A Origins to Roman Republic (4). (IV), 37B Roman Empire (4). (IV), 37C The Roman Legacy (4). (IV) *

**History 70 Problems in History.** An introduction to the historical problems, the issues of interpretation, the primary sources, and the historical scholarship of the history of Asia, Europe, the U.S., Latin America, the Middle East, and Africa, as well as transregional history, with an emphasis on developing skills in historical essay-writing. 70A Problems in History: Asia (4). (IV, VIII), 70B Problems in History: Europe (4). (IV, VIII), 70C Problems in History: United States (4). (IV), 70D Problems in History: Latin America (4). (IV, VIII), 70E Problems in History: Middle East and Africa (IV, VIII), 70F Problems in History: Transregional History. May be repeated for credit as topics vary. (IV, VIII)

**Humanities 1A-B-C The Humanities Core Course (8-8-8) F, W, S.** This course is restricted to students who are beginning their first year of college-level work. Each year it deals with problems of concern to the humanistic disciplines including interdisciplinary perspectives on major themes in history, literature, and philosophy. Focuses on major texts and works of art from a range of different cultural traditions. A writing program is integral to the course and counts for half the grade each quarter. Students are taught to think, speak, and write clearly about the issues raised in the texts and addressed in lectures. Students held for the UC Entry Level Writing requirement will earn an additional two units of workload credit, and must take the course for a letter grade. 1A is prerequisite to 1B, and 1B is prerequisite to 1C. (1A-B-C: I, IV; 1C: VII)

**Music 14A-B-C European and American Music: 1700-Twentieth Century (4-4-4) F, W, S.** Survey of European and American music from the Baroque period through the twentieth century. 14A: Baroque and Classical music with adequate attention given to the Medieval and Renaissance periods. 14B: The nineteenth and twentieth centuries. 14C: Selected topics in American music. (IV)

**Music 40B-C History of European Music to Wagner (4-4) F, W.** A survey of Western music. An introduction to the analysis of musical styles and forms and to the sources for constructing music history and reconstructing historical music. 40B: to J.S. Bach; 40C: to Richard Wagner. Prerequisites: Music 16C; Music 35B recommended for 40C. Open to Music majors only. (IV, VIII)

**Music 40D Twentieth-Century Music (4) S.** Survey of principal composers, movements, and compositional techniques of Western art music of the modern era. Prerequisites: Music 16D and 40B-C. (IV, VIII)

**Philosophy 1 Introduction to Philosophy (4).** A selection of philosophical problems,
concepts, and methods, e.g., free will and cause and substance, personal identity, the nature of philosophy itself. (IV)

**Philosophy 10 History of Ancient Philosophy** (4). Examination of the central philosophical themes developed by the pre-Socratics, Socrates, Plato, Aristotle, the Stoics, the Epicureans, and the Skeptics. (IV)

**Philosophy 11 History of Medieval Philosophy** (4). A study of some of the major theological and philosophical texts from the Medieval period. Philosophy 10 recommended as background. (IV)

**Philosophy 12 History of Modern Philosophy** (4). A study of major developments in western philosophy from Descartes to Kant with readings from Descartes, Leibniz, Locke, Berkeley, Hume, and Kant. Philosophy 10 or 11 recommended as background. (IV)

**Philosophy 13 History of Contemporary Philosophy** (4). A study of recent philosophical developments in Anglo-American and Continental philosophy with readings from such figures as Russell, Moore, Wittgenstein, Quine, Heidegger, and Sartre. Philosophy 12 recommended as background. (IV)

**Philosophy 20 Introduction to Human Nature** (4). Is our nature determined by how we are created or by what we want to be? Attempts to answer these questions by looking at stories of human origins and scientific accounts of human nature. (IV)

**Philosophy 21 Introduction to Philosophy and Religion** (4). What is religion? What is its relation to philosophy? Must one be religious in order to be a moral or good person? In examining these issues, attends to both Eastern and Western traditions and perspectives. (IV)

**Philosophy 23 Introduction to Problems of Self and Mind** (4). A study of basic problems in metaphysics, such as: What am I? A mind, a soul, a body? A social being? A bioorganism? Am I the same person today, yesterday, and tomorrow? Is there a story of my life that captures my essence? (IV)

**Philosophy 4 Introduction to Ethics** (4). Selected topics from the history of ethics, e.g., the nature of the good life and the moral justification of conduct. (IV)

**Philosophy 5 Contemporary Moral Problems** (4). Selected moral issues of current interest, e.g., abortion, sexual morality, euthanasia, capital punishment, reverse discrimination, civil disobedience, or violence. (IV)

**Philosophy 9 Feminist Moral and Political Philosophy** (4). Selected topics in moral and political philosophy analyzed from feminist perspectives, e.g., gender-based differences in moral attitudes and virtues, hidden in traditional accounts of political obligation, and feminism and sexual orientation. Prerequisite: Philosophy 4 recommended. (IV)

**Religious Studies 5A World Religions I** (4). An introduction to the history, doctrine, culture, and writing of the three "religions of Abraham": Judaism, Christianity, and Islam. Formerly Humanities 5A. (IV, VIII)

**Religious Studies 5B World Religions II** (4). An introduction to various religious traditions in selected areas of the world—including India and South Asia, East Asia, Africa, and the Americas. Formerly Humanities 5B. (IV, VIII)

**Religious Studies 5C World Religions III** (4). A thematic comparison of selected structures and activities that characterize religious traditions. Comparative features may include, for example, holy scriptures, symbolizations of the sacred, attitudes toward
afterlife, collective religious behavior, and religious dissent. Formerly Humanities SC. (IV, VIII)

**Russian 50 Russian Culture** (4) F, W, S. Study of varied topics in Russian culture, area studies, and society, both in the present and in historical perspective. Topics are not normally repeated for a two-year period. May be taken four times for credit as topics vary. (IV, VIII) [three diff. topics]

**Spanish 50 Latin America, U.S. Latino, and Iberian Cultures** (4) F, W, S, Summer. Introduction (for non-majors) to the culture of the Spanish- and Portuguese-speaking worlds (Europe, Latin America, U.S., Africa). May focus on any time period. Taught in English. May be taken for credit three times as topics vary. (IV, VIII) [three diff. topics]

**Studio Art 11A History of Contemporary Art** (4) S. Surveys critical thought that has influenced twentieth-century art production, preparing the student to engage contemporary art with a critical eye, specifically addressing aesthetic and political debates of the historical avant-garde, the neo-avant garde, and postmodern culture. Prerequisites: Studio Art 9A, 9B. (IV)

**Studio Art 1A-B-C Topics in Visual Culture: Foundation Projects** (4-4-4).

Approaches to postwar art and culture. Solving visual problems and developing understanding of how gender, sexuality, race, nationality influence contemporary cultures. Examines individual's relation to being an artist, encouraging experimentation rather than repeating received ideas. (IV)

**Studio Art 9A Media, Art, and Technology** (4) F. Addresses key themes in the Studio Art Department curriculum: the relationship between art and culture; concepts of audience; differing functions of media forms; new information and communication technologies; education and democracy; issues of identity, difference, and globalization. (IV)

**Studio Art 9B Visiting Artists** (4) W. Combines lectures on the various histories and contexts of contemporary art with guest speakers currently working in the field. (IV)

**Studio Art 9C Thematic Investigation** (4) S. A thematic investigation into modern and contemporary art (1945-present). (IV)
V. Quantitative, Symbolic, and Computational Reasoning

This requirement enables students to evaluate quantitative and symbolic arguments and to model and solve real-world problems using systems of abstract symbols.

Students must complete three courses from the list below: [Note: This is only a partial list. It consists of courses that already satisfy the current breadth requirement in the corresponding category. Departments may propose additional courses to satisfy the new GE requirement. These will be reviewed before the Fall 2008 effective date of the CEP GE Plan.]

**Anthropology 10A-B-C Probability and Statistics (4-4-4).** An introduction to probability and statistics. Emphasis on a thorough understanding of the probabilistic basis of statistical inference. Emphasizes examples from anthropology, sociology, and related social science disciplines. Same as Sociology 10A-B-C. Students who receive credit for Anthropology 10A-B-C may not receive credit for Psychology 10A-B-C, Social Ecology 13, Social Science 9A-B-C or 10A-B-C, or Sociology 10A-B-C. (V)*

**Biological Sciences 7 Biostatistics (4)** S. Lecture, three hours; discussion, one hour. Motivated by specific biological and medical issues, this course teaches introductory statistical techniques to investigate real-world experimental data from the health sciences, molecular, cellular, environmental, and evolutionary biology. Biological Sciences 7 and Mathematics 7/Statistics 7 may not both be taken for credit. No credit for Biological Sciences 7 if taken after Mathematics 67/Statistics 67. (V)*

**Computer Science & Engineering CSE21 Introduction to Computer Science I (6).** First of a three-quarter introductory course. Introduces fundamental concepts related to computer software design and construction. Develops initial design and programming skills using a high-level programming language (primarily C++/Java). Introduces useful computer-based tools for analysis, expression, discovery. Same as ICS 21. Only one course from CSE21/ICS 21 and ICS H21 may be taken for credit. (V)*

**Computer Science & Engineering CSE22 Introduction to Computer Science II (6).** Second of a three-quarter introductory sequence. Abstract behavior of classic data structures (stacks, queues, priority queues, tables, trees), alternative implementations, analysis of time and space efficiency. Recursion. Object-oriented and functional programming. Models of computation. Prerequisite: CSE21/ICS 21 with a grade of C or better. Same as ICS 22. Only one course from CSE22/ICS 22, ICS H22, or Informatics 42 may be taken for credit. (V)*

**Computer Science & Engineering CSE23 Fundamental Data Structures (4).** Focuses on implementation and mathematical analysis of fundamental data structures and algorithms. Covers storage allocation and memory management techniques. Prerequisites: CSE22/ICS 22 with a grade of C or better, or Informatics 42 with a grade of C or better, or EECS40; Mathematics 6A or ICS 6A. Same as ICS 23. Only one course from CSE23/ICS 23 and ICS H23 may be taken for credit. (V)*

**ICS 21 Introduction to Computer Science I (6).** First of a three-quarter introductory
course. Introduces fundamental concepts related to computer software design and construction. Develops initial design and programming skills using a high-level programming language (primarily C++/Java). Introduces useful computer-based tools for analysis, expression, discovery. Same as CSE21. Only one course from ICS 21/CSE21 and ICS H21 may be taken for credit. (V)

ICS 22 Introduction to Computer Science II (6). Second of a three-quarter introductory sequence. Abstracts behavior of classic data structures (stacks, queues, priority queues, tables, trees), alternative implementations, analysis of time and space efficiency. Recursion. Object-oriented and functional programming. Models of computation. Prerequisite: ICS 21/CSE21 with a grade of C or better. Same as CSE22. Only one course from ICS 22/CSE22, ICS H22, or Informatics 42 may be taken for credit. (V)*

ICS 23 Fundamental Data Structures (4). Focuses on implementation and mathematical analysis of fundamental data structures and algorithms. Covers storage allocation and memory management techniques. Prerequisites: ICS 22/CSE22 with a grade of C or better, or Informatics 42 with a grade of C or better, or Engineering EECS40; Mathematics 6A or ICS 6A. Same as CSE23. Only one course from ICS 23/CSE23 and ICS H23 may be taken for credit. (V)*

ICS 6B Boolean Algebra and Logic (4). Relations and their properties; Boolean algebras, formal languages; finite automata. Prerequisite: high school mathematics through trigonometry. Same as Mathematics 6B. (V)

ICS 6D Discrete Mathematics for Computer Science (4). Covers essential tools from discrete mathematics used in computer science with an emphasis on the process of abstracting computational problems and analyzing them mathematically. Topics include: combinatorics, mathematical induction, elementary probability, and asymptotic analysis. Prerequisite: high school mathematics through trigonometry. Formerly ICS 6A. Same as Mathematics 6D. (V)*

ICS H21 Honors Introduction to Computer Science (6). First of a three-quarter introductory sequence. Introduces basic concepts, fundamental laws and principles of software and hardware organization, program construction, applications, and policy and social issues. Develops initial programming skills using a high-level programming language (primarily C/C++/Java). Introduces useful computer-based tools for analyses, expression, and discovery. Prerequisite: enrollment open to ICS majors in the Campuswide Honors Program or by consent of the Donald Bren School of Information and Computer Sciences. Only one course from ICS H21 and ICS 21/CSE21 may be taken for credit. (V)

ICS H22 Honors Introduction to Computer Science II (6). Second of a three-quarter introductory sequence. Covers in-depth concepts of programming and mathematical tools for analyzing programs. Topics include: combinatorics, program analysis and correctness, advanced structures, system design techniques, and programming paradigms. Prerequisite: ICS H21 with a grade of B- or better or ICS 21/CSE 21 with a grade of A or better. Only one course from ICS H22 and ICS 22/CSE22 may be taken for credit. (V)*

ICS H23 Introduction to Computer Science III (4). Third of a three-quarter introductory course. Builds on ICS H22 with respect to mathematical tools and analysis. Focuses on fundamental algorithms in computer science, basic data structures for primary
and secondary memory, storage allocation and management techniques, data description, and design techniques. Prerequisites: ICS 22 with a grade of B- or better or ICS 22 with a grade of A or better; Mathematics 6A or ICS 6A. Only one course from ICS 22 and ICS 22/CSE22 may be taken for credit. (V)∗

Informatics 45 Patterns of Software Construction (4). Building software applications; reusing and integrating components; designing for reuse. Effective use of libraries and APIs, file and network I/O, creation of user interfaces. Prerequisite: Informatics 42 or ICS 22/CSE22 or ICS H22 with a grade of C or better. (V)

10 Introduction to Phonology (4). Basic concepts in phonetic description and phonological analysis. Prerequisite: Linguistics 3. (III or V)

20 Introduction to Syntax (4). Basic concepts in syntactic description and grammatical analysis. Prerequisite: Linguistics 3. (III or V)

3 Introduction to Linguistics (4). Emphasis on the notion that language is a remarkable achievement of the human mind. Current insights into the nature of language. Survey of various subfields of linguistics. Introduction to linguistic analysis. (III or V)

Linguistics 10 Introduction to Phonology (4). Basic concepts in phonetic description and phonological analysis. Prerequisite: Linguistics 3. (III or V)

Linguistics 20 Introduction to Syntax (4). Basic concepts in syntactic description and grammatical analysis. Prerequisite: Linguistics 3. (III or V)

Linguistics 3 Introduction to Linguistics (4). Emphasis on the notion that language is a remarkable achievement of the human mind. Current insights into the nature of language. Survey of various subfields of linguistics. Introduction to linguistic analysis. (III or V)


Logic & Philosophy of Science 30 Introduction to Symbolic Logic (4). An introduction to the symbolism and methods of the logic of statements, including evaluation of arguments by truth tables, the techniques of natural deduction and semantic tableaux. Same as Philosophy 30. (V)∗

Logic & Philosophy of Science 31 Introduction to Inductive Logic (4). Philosophical questions concerning the foundations of scientific inference, e.g., the traditional problem of induction, the Goodman paradox, the concept of cause, Mill's method of inductive reasoning, probability calculus, different interpretations of probability, and their interaction in inductive reasoning. Prerequisite: Logic and Philosophy of Science 30 or 104. Same as Philosophy 31. (V)∗

Management 7 Statistics for Business Decision Making (4). Basics of data analysis and the fundamental notion of statistical inference emphasizing applications to administrative and management decision problems. Classical estimation and hypotheses testing, regression, correlation, analysis of variance, nonparametric methods and statistical probability. Only one course from Management 7, Biological Sciences 7, or Mathematics 7/Statistics 7 may be taken for credit. No credit for Management 7 if taken after Mathematics 67. (V)

Mathematics 2A-B Single-Variable Calculus (4-4) F, W, S, Summer. Lecture, three
hours; discussion, two hours. **2A:** Introduction to derivatives, calculation of derivatives of algebraic and trigonometric functions; applications including curve sketching, related rates, and optimization. Antiderivatives. Prerequisite: pass the UCI Precalculus test no more than one year before the start of the quarter in which Mathematics 2A will be taken, or get a grade of C (2.0) or better in Mathematics 1B at UCI. **2B:** Definite integrals; the Fundamental theorem of calculus. Applications of integration including finding areas and volumes. Techniques of integration. Logarithmic and exponential functions. Polar coordinates. Prerequisite for Mathematics 2B: 2A. (V)

**Mathematics 2D (4) F, W, S, Summer.** Differential and integral calculus of real-valued functions of several real variables, including applications. Prerequisites: Mathematics 2A-B. Mathematics 2D and H2D may not both be taken for credit. (V)*

**Mathematics 2J Infinite Series and Basic Linear Algebra (4) F, W, S, Summer.** Lecture, three hours; discussion, two hours. Systems of linear equations; matrix operations; determinants; eigenvalues, and eigenvectors. Infinite sequences and series. Complex numbers. Prerequisites: Mathematics 2A-B. (V)

**Mathematics 4 Mathematics for Economists (4) F, S.** Lecture, three hours; discussion, two hours. Topics in linear algebra and multivariable differential calculus suitable for economic applications. Prerequisites: Mathematics 2A-B. No credit for Mathematics 4 if taken after both Mathematics 2J and 2D. (V)

**Mathematics 6B Discrete Mathematics: Boolean Algebra and Logic (4) W, S, Summer.** Lecture, three hours; discussion, two hours. Relations and their properties; Boolean algebras, formal languages, finite automata. Prerequisite: high school math through trig. Same as ICS 6B. (V)

**Mathematics 6D Discrete Mathematics for Computer Science (4) F, S, Summer.** Lecture, three hours; discussion, two hours. Covers essential tools from discrete mathematics used in computer science with an emphasis on the process of abstracting computational problems and analyzing them mathematically. Topics include: combinatorics, mathematical induction, elementary probability, and asymptotic analysis. Prerequisite: high school mathematics through trigonometry. Formerly Mathematics 6A. Same as Information and Computer Science 6D. (V)

**Mathematics 6G Linear Algebra (4) F, W, S, Summer.** Lecture, three hours; discussion, two hours. Linear equations, vector spaces and subspaces, linear functions and matrices, linear codes, determinants, scalar products. Prerequisite: high school mathematics through trigonometry. Formerly Mathematics 6C. Mathematics 6G and Mathematics 3A may not both be taken for credit. NOTE: Mathematics majors must take 3A. (V)

**Mathematics 7 Basic Statistics (4) F, W, S, Summer.** Lecture, three hours; discussion, one to two hours. Introduces basic inferential statistics including confidence intervals and hypothesis testing on means and proportions, t-distribution, Chi Square, regression and correlation. F-distribution and nonparametric statistics included if time permits. Same as Statistics 7. Mathematics 7/Statistics 7 and Biological Sciences 7 may not both be taken for credit. No credit for Mathematics 7/Statistics 7 if taken after Mathematics 67/Statistics 67. (V) F, W offered for seniors only.*

**Mathematics 1H2D-E Honors Multivariable Calculus (4-4) W, S.** Lecture, three hours; discussion, two hours. Covers the same material as Mathematics 2D-E, but with a greater emphasis on the theoretical structure of the subject matter. Especially recommended for
prospective Mathematics majors and others with a particular interest in mathematics. Satisfies the same requirements and prerequisites as 2D-E. Prerequisites for H2D: a grade of B (3.0) or better in Mathematics 2B or a score of 4 or 5 on the Advanced Placement Calculus BC examination; for H2E: a grade of C (2.0) or better in Mathematics H2D. Mathematics 2D-E and H2D-E may not both be taken for credit. (H2D: V)*

**Philosophy 29 Critical Reasoning (4).** Introduction to analysis and reasoning. The concepts of argument, premise, and conclusion, validity and invalidity, consistency and inconsistency. Identifying and assessing premises and inferences. Deductive versus inductive reasoning, and introduction to the probability calculus. Evaluating definitions. Informal fallacies. Same as Logic and Philosophy of Science 29. (V)

**Philosophy 30 Introduction to Symbolic Logic (4).** An introduction to the symbolism and methods of the logic of statements, including evaluation of arguments by truth tables, the techniques of natural deduction and semantic tableaux. Same as Logic and Philosophy of Science 30. (V)

**Philosophy 31 Introduction to Inductive Logic (4).** Philosophical questions concerning the foundations of scientific inference, e.g., the traditional problem of induction, the Goodman paradox, the concept of cause, Mill’s method of inductive reasoning, probability calculus, different interpretations of probability, and their interaction in inductive reasoning. Prerequisite: Philosophy 30 or 104. Same as Logic and Philosophy of Science 31. (V)

**Psychology 10A-B-C Probability and Statistics in Psychology I, II, III (4-4-4).** An introduction to probability and statistics. Emphasis on thorough understanding of the probabilistic basis of statistical inference. Examples drawn primarily from psychology. Prerequisite or corequisite for 10A: Psychology 9A. Students who receive credit for Psychology 10A-B-C may not receive credit for Anthropology 10A-B-C, Social Ecology 13, Social Sciences 9A-B-C or 10A-B-C, or Sociology 10A-B-C. (V)*

**Social Ecology 166A-B-C Foundations of Applied Statistics I, II, III (4-4-4).** Lecture, four hours; laboratory, three hours. 166A-B: Descriptive statistical concepts and techniques most widely used in social science research. Weekly laboratories employ computer graphics to investigate concepts. 166A: Pass/Not Pass only. 166C: Classical statistical inference, limited to simple random sampling or simple randomization designs. Characteristics of sampling distributions; bias, standard error, mathematical models, estimation, hypothesis testing. Same as Social Sciences 100A-B-C and Statistics 100A-B-C. (V)*

**Social Science 100A-B-C Foundations of Applied Statistics I, II, III (4-4-4).** Lecture, four hours; laboratory, three hours. 100A-B: Descriptive statistical concepts and techniques most widely used in social science research. Weekly laboratories employ computer graphics to investigate concepts. 100A: Pass/Not Pass only. 100C: Classical statistical inference, limited to simple random sampling or simple randomization designs. Characteristics of sampling distributions; bias, standard error, mathematical models, estimation, hypothesis testing. Same as Social Ecology 166A-B-C and Statistics 100A-B-C. (V)*

**Social Science 10A Probability and Statistics in the Social Sciences I (4) F.**
Introduction to the variety of statistical applications in the social sciences. Descriptive statistics. Measures of central tendency and dispersion. Percentile ranks. Standardization and normal approximation. Basic probability theory focuses on application to statistical inference and binomial distribution. Laboratory required. Corequisite or prerequisite: Social Science 3A. Prerequisite: lower-division standing or consent of instructor.

Students who receive credit for Social Science 10A may not receive credit for Anthropology 10A, Psychology 10A, Social Ecology 13, Social Science 9A, or Sociology 10A. (V)*

Social Science 10B Probability and Statistics in the Social Sciences II (4) W.
Introduction to statistical inference, sampling distribution, standard error. Hypothesis tests for proportions and means. Inferential techniques for nominal variables including chi-square, study measures of strengths, significance of relationships between variables, assumptions, data requirements, and types of error in significance tests. Prerequisite: Social Science 10A. Students who receive credit for Social Science 10B may not receive credit for Anthropology 10B, Psychology 10B, Social Ecology 13, Social Science 9B, or Sociology 10B. (V)*

Social Science 10C Probability and Statistics in the Social Sciences III (4) S. Focus on correlation, regression, and control for effects of variables. One-way and two-way factorial analysis of variance. A priori and a posteriori comparisons. Introduction to repeated measures design and non-parametric statistics. Discuss use of statistics in newspapers and popular magazines. Prerequisite: Social Science 10B. Students who receive credit for Social Science 10C may not receive credit for Anthropology 10C, Psychology 10C, Social Ecology 13, Social Science 9C, or Sociology 10C. (V)*

Social Science 9A General Statistics and Probability I (4) F. Introduction to the variety of statistical applications in many fields, including the humanities, physical and social sciences, business, forensic and health sciences. Descriptive statistics, including percentile ranks, standardization, and normal approximation. Estimation and the measurement of error. For non-Social Sciences majors only. Students who receive credit for Social Science 9A may not receive credit for Anthropology 10A, Psychology 10A, Social Ecology 13, Social Science 10A, or Sociology 10A. (V)*

Social Science 9B General Statistics and Probability II (4) W. Introduction to statistical inference, sampling distributions, standard error. Hypothesis tests for proportions and means. Inferential techniques for nominal variables including chi-square. Selected applications in fields such as ecology, forensic science, and quantitative stylistics are based on student interests. For non-Social Sciences majors only. Prerequisite: Social Science 9A. Students who receive credit for Social Science 9B may not receive credit for Anthropology 10B, Psychology 10B, Social Ecology 13, Social Science 10B, or Sociology 10B. (V)*

Social Science 9C General Statistics and Probability III (4) S. Focus on correlation and regression. One-way and two-way factorial analysis of variance. Introduction to repeated measures designs and non-parametric statistics. Critiquing the use of statistics in newspapers and popular magazines. Locating, accessing, and evaluating statistical data. For non-Social Sciences majors only. Prerequisite: Social Science 9B. Students who receive credit for Social Science 9C may not receive credit for Anthropology 10C, Psychology 10C, Social Ecology 13, Social Science 10C, or Sociology 10C. (V)*

Sociology 10A-B-C Probability and Statistics (4-4-4). An introduction to probability
and statistics. Emphasis on a thorough understanding of the probabilistic basis of statistical inference. Emphasizes examples from sociology, anthropology, and related social science disciplines. Same as Anthropology 10A-B-C. Students who receive credit for Sociology 10A-B-C may not receive credit for Anthropology 10A-B-C, Psychology 10A-B-C, Social Ecology 13, or Social Science 9A-B-C or 10A-B-C. (V)*

**Statistics 100A-B-C Foundations of Applied Statistics I, II, III (4-4-4).** Lecture, four hours; laboratory, three hours. **100A-B:** Descriptive statistical concepts and techniques most widely used in social science research. Weekly laboratories employ computer graphics to investigate concepts. 100A: Pass/Not Pass only. **100C:** Classical statistical inference, limited to simple random sampling or simple randomization designs. Characteristics of sampling distributions; bias, standard error, mathematical models, estimation, hypothesis testing. Same as Social Sciences 100A-B-C and Social Ecology 166A-B-C. (V)*

**Statistics 7 Basic Statistics (4).** Lecture, three hours; discussion, one to two hours. Introduces basic inferential statistics including confidence intervals and hypothesis testing on means and proportions, t-distribution, Chi Square, regression and correlation. F-distribution and nonparametric statistics included if time permits. Same as Mathematics 7. Only one course from Statistics 7/Mathematics 7, Biological Sciences 7, or Management 7 may be taken for credit. No credit for Statistics 7/Mathematics 7 if taken after Mathematics 67. (V)
VI. Language Other Than English

Study of a language other than English expands students' horizons by encouraging understanding of another culture through its language and heightens awareness of one's own language through the investigation of another linguistic system.

Students must demonstrate competency in a language other than English by completing one of the following options:

A. College-level course work equivalent to UCI's third quarter of study in a language other than English. UCI courses approved to satisfy this requirement are:

Arabic 1C; Chinese 1C, S1BC; French 1C, S1BC; German 1C, S1BC; Greek 1C, S1BC; Hebrew 1C; Italian 1C; Japanese 1C, S1BC; Korean 1C, S1BC; Latin 1C, S1BC; Persian 1C; Portuguese 1C; Russian 1C; Spanish 1C, S1BC; Tagalog 1C; Vietnamese 1C, S1BC

For information on UCI's prerequisites, course placement policies, and the grade required to advance to the next level of instruction, consult the School of Humanities (Foreign Language Placement and Progression) section in this Catalogue.

B. Credit for three years of high school study or its equivalent in a single language other than English with a C average or better in the third year.

C. A score of 3, 4, or 5 on a College Board Advanced Placement Examination in a language other than English.

D. A score of 570 or better on a College Board SAT Subject Test in a language other than English, with the exception of the test in Modern Hebrew for which a score of 500 or better is required.

E. Completion of an approved course of study through the Education Abroad Program (EAP). Careful planning is required to ensure that this requirement is fulfilled. Check with an EAP counselor at the Center for International Education to determine the programs in countries that fulfill this requirement.

F. The equivalent as determined by an appropriate and available means of evaluation. For information on availability of such examinations and testing schedules, consult the Testing Office, Student Services II, (949) 824-6207. If an appropriate means of evaluating competence in a non-English language of instruction does not exist, satisfactory completion, with a C average or better, of one year of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English will meet the requirement. Appropriate documentation must be presented to substantiate that the course work was completed.
VII. Multicultural Studies

This requirement develops students' awareness and appreciation of the history, society, and/or culture of one or more underrepresented groups in California and the United States.

Students must complete one course from the following list. In fulfilling Category VII, students are encouraged to use courses that are also being used in fulfillment of other GE categories. For example, Humanities 1C simultaneously satisfies Category VII and a portion of Category IV.

African American Studies 40A, 40B, 40C, 151
Art History 163, 164A, 164B
Classics 175
Comparative Literature CL9, CL105
Criminology, Law and Society C172
Education 104E, 124, 155, 160
Environmental Analysis and Design E15, E131U, E190U
Film and Media Studies 130
Humanities 1C
Linguistics 2
Music 78A, 78B
Philosophy 131E
Political Science 61A, 124A, 124B, 124C, 124D, 126A, 126C
Sociology 63, 65, 68A, 161
Spanish 100E, 110C, 140A, 140B, 142
Studio Art 149
Women's Studies 20, 50A, 50B, 50C, 120B, 139, 156A, 156B, 157A, 158A, 158B, 168A, 197
VIII. International/Global Issues

Courses in this category focus on significant cultural, economic, geographical, historical, political, and/or sociological aspects of one or more countries other than the United States. In satisfying Category VIII, students are encouraged to use courses that also satisfy another category's requirement.

Students must complete one course from the following list. In fulfilling category VIII, students may use courses which are also being used in fulfillment of other breadth categories. In addition, category VIII may be satisfied by one quarter’s participation in the Education Abroad Program (EAP).

Arabic S2BC
Asian American Studies 171A
Chicano/Latino Studies 115A, 115C, 133A, 133B, 162, 164, 165
Classics 176
Comparative Literature CL 40A, CL 40B, CL 40C
Criminology, Law and Society C191
Dance 80, 81, 82, 90A-B-C
Drama 40A, 40B, 40C, 120A, 120B, 120C
East Asian Languages and Literatures 20, 55, 110, 116, 117, 120, 130, 150, 155, 160, 170, 190, 192
Economics 13, 152A, 152P-Q
Environmental Analysis and Design E113, E125, E127, E143U, E190C
Film and Media Studies 160, 161
Greek 103, 104
Humanities 100, 103A-B, 183B
International Studies 11, 12, 13, 111A, 121, 122, 179, 189
Italian 2B-C, 100A-B, 101A, 101B, 101C
Latin 103, 104
Linguistics 1
Music 40B-C-D
Persian S2BC
Philosophy 117
Portuguese 120B, 120C, 121, 122
Religious Studies 5A, 5B, 5C
Russian 2B-C, 50, 140, 150
Social Ecology 183B
Social Science 170C, 170P, 172F, 176A, 183B
Sociology 2, 44, 77, 165A, 175A, 175B
Vietnamese 2B-C, 3A-B-C, 115

One of the following fourth-quarter language options:

A. Arabic S2AB; Chinese 2A; French 2A, S2AB; German 2A, S2AB; Greek 100A, 100B; Italian 2A; Japanese 2A, S2AB; Korean 2A; Latin 100A, 100B; Persian S2AB; Portuguese 2A, 120A; Russian 2A, S2AB, 5; Vietnamese 2A
B. Credit for four years of high school study or its equivalent in a single language other than English with a C average or better in the fourth year.
C. A score of 4 or 5 on a College Board Advanced Placement Examination in a language other than English.
D. A score of 620 or better on a College Board SAT Subject Test in a language other than English, with the exception of the test in Modern Hebrew for which a score of 540 or better is required.
E. The equivalent as determined by an appropriate and available mean of evaluation. For information on availability of such examinations and testing schedules, consult the Testing Office, Student Services II, (949) 824-6207. If an appropriate means of evaluating competence in a non-English language of instruction does not exist, satisfactory completion, with a C average or better, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English will meet the requirement. Appropriate documentation must be presented to substantiate that the course work was completed.
IX. Laboratory or Performance

Every student at UCI should have at least one academic experience that goes beyond traditional classroom delivery. Examples include courses in which students conduct laboratory experiments, complete a performance in the fine arts, study abroad, complete an academic internship, field study, or practicum, or participate in outreach efforts. In satisfying Category IX, students are encouraged to use courses that also satisfy another category’s requirement.

Students must complete one course from the list below: [Note: Because this category is new, departments must propose courses to satisfy this requirement. Because this category includes a broad range of activities, CEP expects that courses from every unit on campus can be approved to satisfy this requirement. Detailed guidelines appear below (see “General Education Statement and Guidelines”).]
INFORMATION FOR TRANSFER STUDENTS:
FULFILLING REQUIREMENTS FOR A BACHELOR’S DEGREE

This section provides a guide for transfer students in understanding how their course work from another collegiate institution applies to fulfilling UCI degree requirements. Transfer students should use this information in conjunction with the previous section, Requirements for a Bachelor’s Degree. Transfer students are required to meet University, general education, school, department, and major requirements described in the Catalogue. The courses and descriptions in this Catalogue may be used by prospective transfer students as a guide for selecting courses of similar content and purpose in their own institutions. No student who has taken a course which is accepted for credit by the Office of Admissions and Relations with Schools (OARS) and which has been mutually determined with a community college as being acceptable toward completion of the UCI GE requirement shall incur any loss of credit in satisfaction of the requirement.

Transfer students are strongly advised to check with the academic counselor in their prospective major or OARS about courses that may be used to satisfy UCI requirements.

Duplicate Credit Prohibited. Students may not receive unit credit or earn grade points for college courses in which the content duplicates material of a previously completed course or examination for which the student has been granted college credit. See pages 40–47 for exceptions related to Advanced Placement and International Baccalaureate credit. See pages 71–72 for exceptions related to the repair of deficient grades.

Transfer Students: Completion of the UCI General Education Requirement

Students transferring to UCI must satisfy the UCI general education (GE) requirement by completing either: (a) the current UCI GE requirement (see pages XXX-XXX), (b) one of the options listed in the Catalogue Rights section, or (c) the Intersegmental General Education Transfer Curriculum (IGETC). With the exception of students who complete IGETC, transfer students should not feel that the UCI GE requirement must be completed prior to matriculating to UCI. The GE requirement, which must be completed prior to graduation, may be satisfied by college-level courses appropriate to UCI offerings and may be met at any time during the undergraduate years, except in the case of the lower-division writing requirement, which must be completed within the first three quarters of residency at UCI.

NOTE: Transfer students should be aware that UCI is on the quarter system. For the purpose of counting courses for the UCI GE requirement, one semester course is equivalent to one quarter course, and two semester courses are equivalent to three quarter courses.

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM

California community college transfer students may receive credit for the UCI GE requirement by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. IGETC consists of a series of subject areas and types of courses which, if completed prior to transfer, will satisfy the general education requirements at any campus of the University of California. Fulfillment of IGETC does not satisfy the UCI upper-division writing requirement. Students who do not complete IGETC prior to transferring to UCI must fulfill the UCI GE requirement in its entirety. In general, students are encouraged to follow the IGETC pattern to meet general education requirements unless otherwise noted by the academic unit at UCI.

Please note: (1) IGETC must be completed in total prior to enrolling at UCI; (2) students are responsible for requesting IGETC certification from their community college; and (3) the IGETC certification should be submitted to the UCI Office of Admissions and Relations with Schools no later than the end of the first quarter of UCI enrollment.

Courses used to fulfill IGETC must be completed with a grade of C or better. (Courses may also be taken on a Pass/No Pass basis provided Pass is equal to a letter grade of C or better.)

Lists of specific approved courses which may be taken in fulfillment of IGETC are available from California community colleges and on the World Wide Web at http://www.assist.org/

Intersegmental General Education Transfer Curriculum

1. English Communication: One course in English composition and one course in critical thinking/English composition.
2. Mathematical Concepts and Quantitative Reasoning: One course in mathematics or mathematical statistics which has a prerequisite of intermediate algebra. Courses on the application of statistics to particular disciplines are not acceptable.

3. Arts and Humanities: Three courses with at least one in arts and one in humanities.

4. Social and Behavioral Sciences: Three courses from at least two different disciplines, or an interdisciplinary sequence.

5. Physical and Biological Sciences: One physical science and one biological science course; one must include a laboratory.

6. Language Other Than English: Proficiency equivalent to two years of high school courses in the same language.
CHAPTER II: Baccalaureate Degree Requirements

Section 1: General Requirements

520. General Education Requirement

(A) General

A candidate for the Bachelor's degree must satisfy a general education requirement of courses approved by the Council on Educational Policy (CEP) in each of the following categories:

I. writing (3 courses);
II. science and technology (3 courses);
III. social and behavioral sciences (3 courses);
IV. arts and humanities (3 courses);
V. quantitative, symbolic, and computational reasoning (3 courses);
VI. a language other than English (3 courses in the same language)
VII. multicultural studies (1 course);
VIII. international/global issues (1 course); and
IX. laboratory or performance (1 course).

(B) Category I: Writing Requirement

The Writing Requirement will consist of two approved lower-division courses in expository or creative writing followed by a third upper-division writing course. Lower-division writing courses may be offered by any academic unit provided they contain explicit treatments of problems in composition such as the design of essays, paragraph development, correct sentences, and usage. Such courses may take the form of a workshop or discussion section attached to other courses, such as the writing component of the Humanities Core Course.

The upper-division writing course may not be taken before satisfaction of the lower-division requirement. Such courses may be offered by any academic unit provided they follow the guidelines established by CEP.

(C) Categories II, III, and IV
In most cases, courses approved for the General Education (GE) requirement in these categories will be fundamental to a discipline or will be representative of the way professionals proceed within a discipline. Such courses typically introduce students to an academic area and acquaint them with basic vocabularies and methodologies used in the discipline. Courses in these categories should not be narrowly focused or highly specialized and should require few, if any, prerequisites. They may satisfy the requirements of the major as well as the GE requirements. Typically, GE courses will carry four quarter units of baccalaureate credit and should not be restricted to majors.

(D) Categories V and VI

Courses approved for the GE requirement in these categories will focus on important academic competencies in such areas as calculus or foreign language, among others.

(E) Categories VII, VIII, and IX

Each of these requirements consists of one course. A course approved for the GE requirement in Category VII, VIII, or IX and also approved for the GE requirement in a category other than VII, VIII, or IX may be used to satisfy the requirements of both categories simultaneously. Students will be encouraged to satisfy the requirements of Categories VII, VIII, and IX in this way.

(F) The GE categories do not necessarily coincide with the present UCI academic units. Thus, any academic unit may offer courses for any of the GE categories, and more than one unit may collaborate on a combination of courses. For example, courses approved for the Arts and Humanities GE category may be offered by academic units in the Schools of the Arts or Social Sciences; similarly, a course approved for Arts and Humanities may be offered by two or more academic units. To increase students’ exposure to a variety of disciplinary approaches, faculty and academic advisors should encourage students to choose GE courses from a wide range of schools and departments outside the student’s major.

(G) Courses approved for the GE requirement should be taught regularly by Senate faculty, including senior faculty.

(H) A single course or course combination satisfying more than one GE category simultaneously normally carries more than four quarter units of credit. An example is the Humanities Core Course, which includes instruction in writing and carries eight units of credit. However, courses that satisfy the Multicultural Studies, International/Global Issues, or Laboratory and Performance GE requirement along with the GE requirement in another category need not carry an increase in units.
GENERAL EDUCATION STATEMENT AND GUIDELINES

UCI is committed to the values of a liberal education. One component of that commitment is the requirement that all undergraduates complete a set of general education requirements. General education courses introduce students to a range of ideas and intellectual activities that engage UCI scholars, providing both scope and balance to a university degree beyond the study of a specific major.

The general education requirements are intended to help undergraduates place the specialized study undertaken in the major within a broader context. They are designed to cultivate skills, knowledge, and understanding that will make students effective contributors to society and the world. The general education requirements should enable UCI undergraduates to apply the abilities developed in their studies to identify significant issues, gather and evaluate available evidence, analyze alternatives, reach conclusions, communicate the results effectively, and take considered actions.

Ultimately issues raised by proposed courses should be measured against this statement of intent rather than by formal definitions of each subcategory.

Courses that fulfill each category are fundamental in nature and the experience they provide relatively broad. Therefore, courses would normally be lower-division, with few, if any, prerequisites. Categories VII, VIII, and IX may be exceptions to the lower-division expectation, but courses with several prerequisites, especially prerequisites which themselves satisfy those categories, are inappropriate.

Academic units proposing courses to satisfy GE must provide for CEP a justification of how the courses fit the requirement. (See "Procedures," below)

Descriptions - Specific General Education Categories

Category I (Writing)

The Writing Requirement consists of two writing courses at the lower-division level beyond the UC Entry Level Writing requirement and one upper-division writing course in a discipline. Courses fulfilling the lower-division requirements are offered by the Department of English (composition) or in discipline-based courses, such as Humanities Core Course or the First-year Integrated Program. Upper-division ("W") courses may be offered through any academic unit on campus.

In lower-division courses, students will learn that effective academic writing at the college level requires a series of choices about stance, genre, style, and organization made in response to context, purpose, and audience. Students will develop abilities in critical reading, analytic writing, and argumentation in one quarter and will produce a substantial research project in another quarter. Writing assignments require students to think carefully about intellectual issues, to develop positions, and to support their ideas.
with well-organized evidence. Students will gain competence in information literacy (locating, evaluating, and integrating information gathered from multiple sources) and will employ citation conventions to represent accurately their use of sources and to avoid plagiarism. Students will practice drafting, revising, and making productive use of peer review. Although it is not the primary focus, instruction in grammar, mechanics, usage, and the conventions of standard written English is an integral part of these courses.

Upper-division ("W") courses reinforce and build upon the practices of lower-division writing; minimal guidelines for "W" courses are set by the academic senate.* In upper-division writing, students will gain experience with discipline-specific research methods, genres, modes of development, and formal conventions at an advanced level of competence. Students may be offered opportunities to address writing in their discipline to academic, professional, and public audiences.

*See Guidelines for Upper-Division Writing Courses: http://www.senate.uci.edu/4_SenCom/CEP/WB/GuidelinesU_DWrit.html

Category II (Science and Technology)

Courses that satisfy the Science and Technology requirement will address the scope and limitations of scientific inquiry and the operation of the biological, physical, and technological world. They will provide students with the opportunity to develop a broad understanding of the scientific method, fundamental laws of science, principles underlying the design and operation of technology, interrelationships among science and technology disciplines, and various natural phenomena that surround and influence our lives. They may address such questions as the origin of the universe, the state of the environment, the principles of designing human-computer interactions, or the decoding of the human genome. Students will learn how scientists approach and solve problems. Students will engage in coursework which encourages critical thinking and qualitative and quantitative analysis of data and concepts. Such skills will enable them to draw conclusions based on scientific information and models. Understanding the scope and limitations of scientific inquiry is essential for making personal and public policy decisions in a technological society.

Category III (Social and Behavioral Sciences)

Courses will focus on principles, sources, and interpretations of human behavior and on how people organize, govern, understand, and explain social life. This category includes the analysis of human behavior at all levels, from the individual to collective social, economic, and political life. Students will (a) learn contemporary and historical perspectives on human behavior; (b) become acquainted with the scientific methods used in the acquisition of knowledge and the testing of competing theories; and (c) develop competencies in critically evaluating the methods, findings, and conclusions in the emerging literature. This category includes studies on topics such as human development, behavioral disorder, and social interactions; perception and cognition; language and culture; the nature of scientific knowledge and practice; politics; economics;
environmental issues; social organization, norms, laws, and social controls; class, gender, race, and ethnicity; population and demographic processes; and social change.

**Category IV (Arts and Humanities)**

The requirement in Arts and Humanities is designed to develop the student's critical capacities, particularly in the area of "language," both visual and verbal, in literature and film, art and music, philosophical and historical discourses. Such studies seek to expand the student's sense of diverse forms of cultural expression, past and present. Courses in Arts and Humanities encourage students to think critically about how meaning is created and experience variously interpreted.

**Category V (Quantitative, Symbolic, and Computational Reasoning)**

Courses that satisfy the Quantitative, Symbolic, and Computational Reasoning requirement will develop students' ability to reason within symbolic and computational systems and to apply quantitative, logical, or computational approaches to problem solving that are typical of mathematical thinking. These courses will focus on reasoning using symbols, not just on symbolic descriptions or notations.

**Category VI (Language Other Than English)**

Study of a language other than English expands students' horizons by encouraging understanding of another culture through its language and heightens awareness of one's own language through the investigation of another linguistic system.

**Category VII (Multicultural Studies)**

Courses satisfying this requirement specifically address the history, society, and/or culture of one or more historically underrepresented groups in California and the United States, including African-Americans, Asian-Americans, Chicano/Latinos, and Native Americans. The courses explore the dynamics of these groups with each other and with the dominant majority culture. Courses qualifying for the Multicultural requirement meet the following goals:

- to impart specific knowledge of one or more historically underrepresented groups' culture, history, and development in California and the United States;
- to develop student awareness and appreciation of cultural difference;
- to encourage cooperation and mutual understanding among all cultural groups and prepare our students to interact successfully in a culturally diverse society by eliminating ethno-centrism.

Approval of courses satisfying the Multicultural requirement will be guided by consideration of the following components:
• the distinctive experience of minority cultures;

• cultural self-expression, e.g., art, science, technology, folklore, language and literature, music, religion traditions, commerce, and civic life;

• contributions of minority cultures to the larger American society.

**Category VIII (International/Global Issues)**

Courses satisfying the International requirement focus on significant cultural, economic, geographical, historical, political and/or sociological aspects of a country or countries other than the United States. Ideally, such courses are comparative in nature, emphasizing the interrelationship between and among nations and within the global community. (This requirement may also be met through participation for at least one quarter in an international program such as the Education Abroad Program (EAP).) The goals of the International requirement are similar to those of the Multicultural course requirements:

• to impart knowledge of the cultural, historical, social, economic, scientific, and political aspects of one or more foreign countries;

• to develop a broader understanding among students of the formation of different cultures and countries through the world;

• to prepare students for positive interaction with peoples of different cultures and nationalities.

**Category IX (Laboratory or Performance)**

Every student at UCI should have at least one academic experience that goes beyond traditional classroom delivery. To support that goal, Category IX requires students to complete at least one course that involves significant activity outside the usual classroom, independent study, or academic environment. Examples include courses in which students conduct laboratory experiments, prepare and complete a performance in the fine arts, study abroad, complete an academic internship, field study, or practicum, or participate in outreach efforts. In a course that satisfies this requirement, students must spend a minimum of 10 hours engaged in these activities. Courses approved for this category must carry academic credit or be affiliated with a course that carries academic credit (e.g., in the case of zero-unit labs) and be supervised by faculty. Students will create a tangible product such as a written report, a completed project, a presentation, or a performance that is shared with others, or be actively involved in an internship, teaching, or tutoring experience. To satisfy Category IX, a course should include more than conventional library research, analysis of results, creating written compositions, or online course delivery. In fulfilling Category IX, students may use courses that also satisfy major requirements or other GE categories. If a student believes that a special topics course or research seminar includes nontraditional activities covered by this requirement,
the student may petition the dean of their school to have that course or seminar satisfy this category.

**Procedures**

1. When the originating unit submits a course for approval as GE, it should provide a statement of how the proposed course satisfies the category for which it is proposed.

   ADD to the current Course Approval Form the following statement, under "Justification for Action":

   "If the course is proposed for satisfaction of the General Education Requirement, attach a statement addressing the way(s) in which the course satisfies the purpose of the Requirement Category as explained in the General Catalogue and guidelines available in the Senate."

2. The regular GE category reviews should include consideration of whether there are courses offered to satisfy the requirement which no longer appear to satisfy the spirit of the category.