## The Freshman Seminar Program

The courses described in this publication are designed specifically to provide an opportunity for small groups of entering students to work with a faculty member on a scholarly topic of mutual interest. These courses depend on the regular presence and active participation of every student. Sharing ideas in class is an important academic skill that can be acquired only through practice. The vigorous discussions that characterize the most successful seminars depend on the commitment of each and every member of the class.

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#### **Freshman Seminars**

The following courses, most of which are numbered 24, are limited to 15-18 students. Each is offered for one unit of credit. First-year students will be given priority for enrollment. Courses designated P/NP may be taken pass/no pass only; courses designated LG may be taken for a letter grade or on a pass/no pass basis. If a course is designated as requiring the consent of the instructor to enroll, or if you would like additional course information, contact the undergraduate assistant in the department offering the seminar.

Aerospace Studies 24, Section 1 and 2 The Foundation of the United States Air Force (LG) Professor Joseph A. Quinn Section 1: Wednesday 5:00-6:00, 174 Barrows Hall, CCN: 57406 Section 2: Tuesday 1:00-2:00, 78 Barrows Hall, CCN: 57408

This course is designed to be an introduction to the Air Force Reserve Officers Training Corps and the Air Force . . . how it's organized, how it works, and how college students like yourselves can try out our program so you can see for yourself if the Air Force is for you. The topics we will be covering this term include leadership, core values, managing diversity, equal opportunity and treatment, team building, and communication skills. Most of these topics are a basic introduction to the Air Force and the military.

Captain Joe Quinn is a Financial Manager in the Air Force and an Assistant Adjunct Professor at UC Berkeley. He received a Bachelors of Business Administration from Texas Tech University and a Masters of Business Administration from the University of South Dakota.

American Studies 24, Section 1
The Internet and Society (LG)
Professor Michel Laguerre
Wednesday 4:00-6:00, Foothill Classroom A, CCN: 02024

This seminar analyzes some aspects of the digitization of the American city. The transformation of various sectors of society brought about by the advent of information technology and the virtual mode of communication that the Internet makes possible provide the frame of reference for the study of the nature of these changes and their implications for daily life in the contemporary American metropolis. In this seminar we will focus on actual information technology practices in the Silicon Valley/San Francisco metropolitan area, documenting and explaining how those practices are remolding social relations, global interaction, and workplace environments. This seminar will meet the first eight weeks of the semester and is part of the Freshman Seminar Program Dinner Series. Professor Laguerre looks forward to dining with his students in the Foothill Dining Commons from 6:00 to 7:00 p.m. each week to continue the seminar discussion in a more informal setting.

Michel S. Laguerre is Professor and Director of the Berkeley Center for Globalization and Information Technology. He has published several books including The Global Ethnopolis: Chinatown, Japantown and Manilatown in American Society and Urban Multiculturalism and Globalization in New York City. He is completing two new volumes on The American Metropolis and the Internet: The Rise of the Digital City and Jewish Quarters in the European Union: Berlin, London, and Paris (1945-2003).

#### **HELPFUL THINGS TO REMEMBER:**

For late additions and last-minute changes, check the Freshman Seminar Program website at http://fsp.berkeley.edu.

You may enroll in only one seminar during Phase One of TeleBEARS, so choose carefully!

Review the entire Freshman Seminar Program brochure for seminars of interest. There are many hidden treasures: topics offered in unexpected departments. See additional boxes for a few samples. You can find the rest.

Select a couple of alternatives in case the seminar you are most interested in is full.

If you are enrolled, be sure to show up for the first session. Otherwise, you may be dropped from the course.

If you are on the wait list, be sure to show up for the first session. You may be added if enrolled students do not attend.

#### Architecture 24, Section TBA Exploring American Cities (P/NP) Professor Paul Groth Tuesdays 3:00-5:00, Location TBA, CCN: TBA

The visual and spatial artifacts of cities—their buildings, lots, streets, signs, front yards, even graffiti—provide very useful clues to past and present meanings, social identities, political struggles, and economic realities within America. These visual aspects of cities are not random; they often fit into repeating patterns and processes. Thus, learning to see the cities of the Bay Area can provide basic tools for understanding any American city built after 1850. In addition to brief readings and discussions, we will explore parts of Berkeley, Oakland, and San Francisco with five two-hour field trips, traveling by foot, bus, and BART. This seminar will meet the first eight weeks of the semester, beginning January 20, 2004 and ending March 9, 2004. For the section number, location, and course control number of this seminar, please visit the Freshman Seminar Program website at http://fsp.berkeley.edu.

Paul Groth is a Professor in architecture, geography, and American studies. His overarching interests and publications are in cultural landscape studies—that is, the history, form, and meaning of ordinary built environments, particularly in the United States. He has studied urban buildings and districts in dozens of cities, and is currently at work on a book connecting changes in American workplaces, public recreation, and homes.

Love **art**? Maybe one of the History of Art 24 seminars, History 24, Section 3: The Museums of Berkeley, or History 24, Section 4: Michelangelo's World is right for you.

#### Chemical Engineering 24, Section 1 Introduction to Chemical Engineering: Traditional Careers and New Directions (P/NP) Professor David Graves Thursday 4:00-5:00, 65 Evans Hall, CCN: 10403

This course is intended to be an introduction to chemical engineering, with descriptions of both traditional careers and the variety of new directions being taken in the profession. Traditional areas of employment include process, design and control engineering in the chemical, petroleum, food and pharmaceutical industries. Newer areas include biotechnology and life-science applications, environmental applications, and semiconductor manufacturing. The goal is to provide some context for students who have chosen chemical engineering as a major or who are simply interested in a better understanding of chemical engineering and its evolution as a profession. Basic chemical engineering concepts in physical and mathematical models will be illustrated in a series of case studies.

David B. Graves is a Professor in the Chemical Engineering Department. His research area is plasma processing for microelectronics manufacturing: the use of ionized gases for surface modification of thin solid films. He serves as a consultant to several semiconductor equipment and chip manufacturing companies.

#### Chemistry 24, Section 1 Irreversibility, Chaos and Fractals (P/NP) Professor Alex Pines Friday 11:00-12:00, 122 Latimer Hall, CCN: 11390

The seminar will discuss the notion of chaos and deterministic randomness in the time evolution of systems in physics, chemistry, and biology. The chaotic dynamics will be related to fractal geometry and the source of irreversibility in otherwise seemingly deterministic equations of motion. The course will be informal, and of a popular non-quantitative nature, so as to allow non-experts to appreciate the ubiquitous role of chaos and fractals, and the general relationship between dynamics and geometry.

Professor Pines, Ph.D. MIT, is a world-renowned teacher of physics and chemistry. He has taught courses across the spectrum from advanced graduate quantum mechanics to his UC Distinguished Teaching Award-winning Freshman Chemistry 1A. He is a world leader in the development and application of nuclear magnetic resonance (NMR) spectroscopy and magnetic resonance imaging (MRI). His work and his group, the "Pinenuts," have been recognized by many prizes including the Wolf Prize for Chemistry. He is a

member of the U.S. National Academy of Sciences and a Foreign Member of the Royal Society of London.

#### Chemistry 24, Section 2 Advantages and Challenges of Nuclear Energy (P/NP) Professor Heino Nitsche Friday 3:00-4:00, 122 Latimer Hall, CCN: 11393

This seminar will explore and discuss the use of nuclear energy worldwide; the nuclear fuel cycle and the many reasons to have a closed fuel cycle; and the nuclear fear factor or nuclear phobia, noting that the only measure against fear is information, education, and knowledge. It will also compare the risks and dangers of nuclear energy with other energy systems including the issue of nuclear proliferation for non-peaceful use, the accidents of Harrisburg in 1979 and Chernobyl in 1986, coal mining and oil related accidents, emissions of radioactivity through conventional combustion, and the greenhouse effect and global warming. This seminar will consist of literature and web searches, short student presentations on selected topics, and balanced discussions of the pros and cons of different energy systems.

Office the energy systems. Professor Nitsche is a member of the senior faculty of the Department of Chemistry at UC Berkeley and a Senior Faculty Scientist at Lawrence Berkeley National Laboratory (LBNL). He is the founding director of the Glenn T. Seaborg Center and served in this position until recently. He was director-at-large of international programs of the Glenn T. Seaborg Institute for Transactinium Science at Lawrence Livermore National Laboratory (LLNL) from 1993 to 2001. Professor Nitsche's research interests include nuclear chemistry and physics of the heaviest elements, fundamental molecular-level understanding of actinides at metal-oxide and biological interfaces, the thermodynamics and kinetics of actinides in solution and their relation to nuclear-waste disposal and environmental contamination. He is also a member of an international team that studied the chemistry of the heaviest elements, bohrium (107) and hassium (108).

# Chinese 24, Section 1 Early Chinese Thought (P/NP) Professor Jeffrey Riegel Wednesday 2:00-4:00, East Asian Library Annex In 11 California Hall, CCN: 20669

This seminar will explore the early history of Chinese philosophy during its classic period: the late Spring and Autumn and Warring States eras (7th century to 3rd century B.C.E.). We will concentrate on the classic books that represent the major schools of thought. These will include the Analects of Confucius, the utilitarian and pragmatic Mozi, the Daoist Zhuangzi, the Legalist Hanfeizi, and the syncretic Lüshi chunqiu. Each of our two-hour meetings will be devoted to one of these seminal works. We will draw from this and other material in our discussions of the early Chinese conceptions of ethics, sexuality, politics, self-cultivation, desire, and aesthetics. All readings will be English translations. This seminar will meet for the first eight weeks of the semester, beginning January 21, 2004 and ending March 10, 2004.

Professor Jeffrey Riegel specializes in ancient Chinese literature and thought. He teaches Asian Studies 10A "Traditional Asian Culture," upper-division courses on ancient Chinese prose and poetry, and, along with Professor Leslie Kurke of the Classics Department, he also offers the interdepartmental course, "Ancient China and Ancient Greece." Professor Riegel's most recent book is a translation of the Lüshi chunqiu and he is currently completing a translation of the

#### Classics 24, Section 1 How Were They Built? Creative Technology in Ancient Greece (P/NP) Professor Crawford Greenewalt Wednesday 4:00-5:00, 263 Dwinelle Hall, CCN: 14727

Ancient Greek artists and artisans were masters of line, balance, and rhythm. The success of their creations also depended on mastery of complex procedures and techniques. The seminar will consider procedures and techniques used in working stone, metal, clay, and other materials for the creation of architecture and art, from colossal buildings to postage-stamp-size carvings and paintings.

Professor Greenewalt is field director of the Sardis Expedition (jointly sponsored by Harvard and Cornell universities); has excavated in

Turkey for thirty-five seasons; and for seven years was involved with the claim and eventual recovery by the Turkish government of gold and silver treasure looted in western Turkey between 1965 and 1968 and partly acquired by the Metropolitan Museum of Art in New York.

Classics 24, Section 2 Psyche: Ancient Greek Ideas of the Soul, the Mind, and the Afterlife (P/NP) Professor Mark Griffith Monday 1:00-2:00, 211 Dwinelle Hall, CCN: 14730

In this seminar, we will read some Greek literary, philosophical, medical, and religious texts spanning the period c. 750 BCE to the early Christian era, with a view to exploring the changing—and often conflicting—ideas that they reveal as to how people feel and think, and what makes them alive. What goes on inside us, or outside us, as perceptions, decisions, emotions, etc. take place? What happens to those thinking/feeling parts of us, and those processes, when we die? And above all, how can we make those processes, and those parts, better and less mortal? All readings will be in English and will include short excerpts from Homer's *lliad* and *Odyssey*, selected bits from Presocratic philosophers and Hippocratic medical texts, funerary epitaphs, Plato's *Phaedo*, parts of Aristotle's *On the Soul (De Anima*), a few short passages from tragedy and comedy, Lucretius' (Latin) version of the Democritean/Epicurean theory of the soul (*De Rerum Natura* Book 3), and a few passages from Hellenistic (and in some cases Jewish and/or Christian) religious texts concerning the afterlife or kingdom of heaven or everlasting life. Students will be required to present two short response papers, one to two pages each, to a couple of the ancient Greek views that we examine

Mark Griffith is a Professor of Classics and of Theater, Dance, and Performance Studies. His publications have focused primarily on Greek tragedy.

Classics 24, Section 3 Julius Caesar: General, Politician, Historian, and Lover (P/NP) Professor Ronald S. Stroud Wednesday 3:00-4:00, 263 Dwinelle Hall, CCN: 14733

Focus in the seminar will be on Caesar's biography, historical importance, his writings, and his legacy in later literature. We will read selections from his *Civil War*, from Cicero's *Letters*, Plutarch's *Life of Caesar*, Shakespeare's *Julius Caesar*, and other works. All members of the seminar will be expected to participate in and lead class discussions. **Enrollment is limited to fifteen freshmen**.

Ronald S. Stroud is a Professor of Classics who teaches ancient Greek, Greek historical authors and orators, and seminars in Greek inscriptions. He is a frequent visitor to Greece, where he conducts research on Greek history, archaeology, inscriptions, and topography. He regularly teaches Undergraduate and Interdisciplinary Studies 44A: Topics in Western Civilization: Ancient Greece, Rome, and Israel.

Classics 24, Section 4 Papyri, Greek Literature, and Ancient Life (P/NP) Professor Donald Mastronarde Wednesday 11:00-12:00, 360 Bancroft Library in the Stone Seminar Room, CCN: 14736

The papyrus plant was the major source of writing material for many centuries during the flowering of the classical civilizations of Greece and Rome. The freshman seminar Papyri, Greek Literature, and Ancient Life will combine hands-on experience with papyri in the collection of The Bancroft Library with study of a number of particular examples of the recovery of lost works of Greek literature as well as of some public and private documents that inform us in unique ways about aspects of life in ancient Egypt. Students will see and touch fragments of papyri in the Bancroft Library; and in one session, if a suitable crop of fresh papyrus stalks is available, they will make their own sheets of papyrus writing material. There will be some guest presentations by other UC Berkeley experts or visiting scholars, including Dr. Todd Hickey, Assistant Research Papyrologist at the Center for the Tebtunis Papyri/The Bancroft Library.

Professor Mastronarde was educated at Amherst College, Oxford University, and the University of Toronto. He has taught at UC Berkeley since 1973 and served as Chair of the Department of Classics from 1993 to 2000. He is Director of the Center for the Tebtunis Papyri, a new campus research project. He is the author of a widely used textbook for elementary ancient Greek and an associated web site, and has published extensively on the ancient Athenian tragedian Euripides and various aspects of ancient drama. For more information visit http://socrates.berkeley.edu/~pinax.

Classics 24, Section 5 The Worlds of Odysseus (P/NP) Professor Anthony Bulloch Wednesday 2:00-3:00, 242 Dwinelle Hall, CCN: 14738

In this seminar, we will study some of the principal themes of Homer's *Odyssey* and their symbolic significance in both the ancient and the modern world. For example, we will examine concepts of male and female identity and relations between men and women; the quest–achievement and desire; knowledge and deception; memory, recollection and reality; defining the self. No previous knowledge of the text, or familiarity with the ancient Greek world, will be assumed.

Anthony Bulloch is a Professor of Classics at UC Berkeley. He was a Fellow, Dean and Classics tutor at King's College in Cambridge and has authored books and articles on various authors and texts in the ancient Greek world.

Interested in **computer science**? Discuss how information technology has affected the American culture with your peers in American Studies 24, Section 1: The Internet and Society.

Demography 24, Section 1 Human Reproductive Technologies: Science, Ethics, and Society (P/NP)

#### Professor John R. Wilmoth Wednesday 4:00-5:00, Unit Three Classroom A10 at 2400 Durant Avenue, CCN: 18203

Human reproductive technologies and practices have changed rapidly over the past fifty years, and further changes are anticipated in the twenty-first century. This seminar will examine such developments from both historical and futuristic perspectives. Topics will include birth control, in vitro fertilization, sperm banks, surrogate parenting, and cloning. The science of such techniques will be reviewed at a level appropriate for a general audience. The social and ethical implications of changing reproductive technologies will also be discussed. This seminar is part of the new Freshman Seminar Program Dinner Series and Professor Wilmoth looks forward to dining with his students in the Unit Three Dinning Commons from 5:00 to 6:00 pm each week to continue the discussion in a more informal setting.

John R. Wilmoth is an Associate Professor of Demography. Most of his research concerns the revolution in human longevity during the past two hundred and fifty years. He recently launched a project to assess the impact of assisted reproductive technologies on fertility levels in the United States. Professor Wilmoth has also written and lectured about the efforts to control human population growth using modern methods of birth control.

Earth and Planetary Science 24, Section 1 and 2 From Geologic Maps to Earth History (P/NP) Professor Walter Alvarez Section 1: Monday 3:00-4:00 pm, 55A McCone Hall, CCN: 19048 Section 2: Monday 4:30-5:30 pm, 55A McCone Hall, CCN: 19051

In 1815, William "Strata" Smith published the first map that showed where different kinds of rocks occur on the surface of the Earth. His accurate and beautiful geologic map of England was the key to understanding the history of the Earth, which is recorded in the layers of sedimentary rocks. Geologic maps continue to be the primary tool of field geologists, valued for the scientific data they contain, as well as for their romance and mystique. We will examine many fascinating geologic maps, and learn how they are made and how to interpret them as documents of Earth history. This Freshman Seminar is open to students who have taken or are currently enrolled in at least one of the following courses: Earth and Planetary Science 50, Math 1A, Physics 7A or Chemistry 1A. Enrollment is limited to thirteen students.

Walter Alvarez is a Professor in the Department of Earth and Planetary Science. He was the geologist on the Berkeley research team that discovered the first evidence that impact caused the extinction of the dinosaurs, and was involved later in the proof that the Chicxulub Crater in Mexico was the site of that impact. He is a member of the National Academy of Sciences, and is one of the major advisors for the Department of Earth and Planetary Science.

Education 24. Section 1 Hot Topics in Higher Education (LG) Ellen Switkes Wednesday 3:00-5:00, 2325 Tolman Hall, CCN: 23503

This seminar will focus on current topics of interest in higher

education such as admissions, financial aid, athletics, effective teaching and learning, student speech codes and academic freedom, crime on campus, and high-school-to-college transition in a university setting. Student-selected topics will also be included. This seminar will meet the first eight weeks of the semester. The instructor will hold office hours after class.

Ellen Switkes is Assistant Vice President of Academic Advancement in the Office of the President, University of California. Her work covers areas of personnel policies for faculty and teaching assistants, graduate student admissions and outreach, and academic collective bargaining, and she was formerly manager of University of California's school improvement programs. Her graduate degree is in Inorganic Chemistry from MIT, and she formerly taught at the University of California, Santa Cruz.

Electrical Engineering 24, Section 1 Gadgets Electrical Engineers Make (P/NP) Professor Jeffrey Bokor Wednesday 10:00-11:00, 125 Cory Hall, CCN: 25248 This seminar is intended to offer a taste of how the hardware that is powering the information age really works. Electrical engineers must invest considerable effort to learn their science and math fundamentals. Eventually, though, the fun comes in building innovative and practical gadgets. We will side-step the science and math and get right into the hardware. We will take a look at what is inside some of today's most exciting products and technology as well as look ahead at the future products that are just around the corner. Our focus will be on hardware and we will see how much fun engineers can have using their hands other than by typing on a keyboard.

Jeffrey Bokor is a Professor of Electrical Engineering and Computer Sciences. After twelve years at Bell Laboratories, he joined the UC Berkeley faculty in 1992. His research is on the ultimate limits of integrated circuit technology.

English 24, Section 1
Reading the Dictionary (P/NP)
Professor Kristin Hanson
Tuesday 4:00-5:00, 201 Wheeler Hall, CCN: 28487

California poet Harryette Mullen's claim that her recent book of poems, Sleeping with the Dictionary, was partly inspired by the American Heritage Dictionary is a reminder of what a wealth of information and ideas dictionaries afford beyond the spellings and definitions for which they are most commonly consulted. In this course we will actually read the American Heritage Dictionary 's front matter and appendices in addition to individual entries, in order to learn how to use the dictionary to explore changes in words' meanings, cognate words in other languages, contested points of correct usage, principles of new word formation, and even the cultural considerations that have made English dictionary making an enduringly profitable commercial enterprise.

Kristin Hanson is an Associate Professor in the English department. A linguist specializing in the relationship between verse forms and grammatical structures, she is currently writing a book on poetic meter in English. Some years ago, however, she worked as a contributing editor for usage for the *American Heritage Dictionary*, and she still reads the morning paper with a highlighter and scissors.

#### English 24, Section 2 Shakespearean Comedy (P/NP) Professor Alan H. Nelson Wednesday 12:00-1:00, 203 Wheeler Hall, CCN: 28490

This seminar will investigate the nature of Shakespearean comedy by studying one play in fine detail, and looking at others more briefly. The principal text will be *Twelfth Night*, a play that involves disguise, cross-dressing, gender-bending, mistaken identities, and misplaced affections. The class will read the entire play through in the first week or two of the semester, then go through the text again scene by scene, character by character. Each participant will be asked to give one practice and one formal oral presentation to the rest of the seminar. We will also follow the progress of *Much Ado About Nothing*—which will be presented in the spring by English 117T: Shakespeare and Theater—attending at least one performance and bringing the semester to a close with a discussion of that play and its production.

Alan H. Nelson is an Emeritus Professor of English. His specializations are paleography, bibliography, and the reconstruction of the literary life and times of medieval and Renaissance England from documentary sources. For more information regarding Professor Nelson, please visit http://socrates.berkeley.edu/~ahnelson/.

#### English 24, Section 3 Growing Up Chicano (P/NP) Professor Genaro Padilla Wednesday 3:00-5:00, 305 Wheeler Hall, CCN: 28493

We will read a small group of narratives about growing up Chicano. I believe that this is a particularly difficult time for all children as they face sexual pressure, violence, discouraging schools. By focusing on Chicano youth we will glimpse their experience as they come into sexuality and gender identity, the early formations of social identity, as they work through personal aspirations over against familial expectations and peer pressure, and how they see themselves coming into their own lives. We will read some of the best writers on childhood and adolescence: Sandra Cisneros's *House on Mango Street* and stories from *Woman Hollering Creek*, Gary Soto's *Living up the Street*, and Michele Serros's *Chicana Falsa and Other Stories of Death, Identity, and Oxnard*. We will also discuss the films "and the earth did not devour him" based on the story by Tomas Rivera, "Mi Vida Loca" directed by Allison Anders, and possibly "Mi Familia" directed by Gregory Nava. This seminar will meet for eight weeks, beginning January 21, 2003 and ending March 17, 2003.

Professor Genaro Padilla has taught at UC Berkeley since 1987, and has written or edited numerous books, including My History, Not Yours: The Formation of Mexican American Autobiography, The Short Stories of Fray Angelico Chavez, Recovering the U.S. Hispanic Literary Heritage (ed.), Nuevomexicano Cultural Legacy: Forms, Agencies, and Discourse (ed.) and Power, Race, and Gender in Academe: Strangers in the Tower? (ed.). He currently serves as the Vice Chancellor for Undergraduate Affairs.

#### English 24, Section 4 The English Language (P/NP) Professor Julian Boyd Friday 1:00-2:00, 106 Wheeler Hall, CCN: 28496

This seminar is about the English language—its structure and its history. We will consider the sounds, the forms, the syntax and the meanings. We will be using *The American Heritage Dictionary* (only the editions that contain the Indo-European Appendix) and a class reader will be available at Copy Central on Bancroft.

Julian Boyd is a Professor Emeritus of English and has taught in the English Department for thirty-eight years.

#### English 24, Section 5 Future, Past, Present: Edward Bellamy's Looking Backward and Mark Twain's Connecticut Yankee (P/NP) Professor Richard Hutson Wednesday 4:00-5:00, 203 Wheeler Hall, CCN: 28499

This is a new version of a freshman and sophomore seminar Professor Richard Hutson has taught before. Bellamy's utopia and Twain's dystopia are both references to the United States at the time of writing, the late 1880s. Just what is the nature of their critiques of the United States and the modern world? Edward Bellamy's Looking Backward, published in 1887, became a major political phenomenon at

the time. Mark Twain's Connecticut Yankee in King Arthur's Court, published in 1889, was popular but was thought to be a satire of England and the premodern world. Why would these authors feel the need to disguise their references to contemporary America with their displacements into the future and into the past? We are in a position to make our own judgments on these matters.

Professor Hutson teaches American literature and American Studies. He is primarily interested in the history of American culture after the Civil War

#### English 24, Section 6 Reading Poems (P/NP) Professor Mitchell Breitwieser Monday 4:00-5:00, 228 Dwinelle Hall, CCN: 28502

We will read poems in the literal sense-read them out loudand in the metaphorical sense, speculating about their sound and sense: why did these poets make the choices they made? For the first half of the semester, I will bring copies of two or three poems to each session for discussion. After that, members of the class will find, copy, and bring in poems. At the end of the semester, each student will write a five-page essay analyzing a single poem. Attendance and participation are required.

Mitchell Breitwieser has taught American and British literature at UC Berkeley for twenty-four years.

#### Environmental Science, Policy and Management 24, Section 1 Literature of the Conservation and Environmental Movements (P/NP)

Professor J. Keith Gilless

Thursday 4:00-5:00, 139 Mulford Hall, CCN: 30442

In this seminar we will read and discuss classic works of conservation literature by Muir, Thoreau, Leopold, and Pinchot, along with modern environmental works by Carson, Chase, McKibben, and others.

Professor Gilless earned his Ph.D. in Forestry and Agricultural Economics from the University of Wisconsin-Madison and has been a member of the UC Berkeley faculty since 1983. His research interests include forestry development, fire-protection planning, regional economic analysis, and forest-products markets. He also teaches ESPM 102C: Resource Economics and Management. He converses regularly with Elvis.

#### Environmental Science, Policy and Management 24, Section 2 Science Goes to the Movies (P/NP) Professor Vincent Resh Monday 4:00-6:00, 203 Wheeler Hall, CCN: 30445

Since cinema began, the characterization of scientists in film has ranged from depictions of inspirational visionaries intrigued with the drama of discovery to power seekers who either deliberately or unwittingly lead society toward death and destruction. In this seminar, we will examine how scientists in different fields and at different times are depicted, how societal fears about technology affect moviegoers' perceptions, and how scientists actually practice their craft compared to how their activities are presented in film.

Professor Resh is an aquatic ecologist in the Department of Environmental Science, Policy and Management. His research interests range from the assessment of water pollution to the migration of animals between marine and freshwater environments.

## Environmental Science, Policy and Management 24, Section 3

Issues in Natural Resource Conservation (P/NP) Professor David L. Wood

Friday 9:00-10:00, 106 Mulford Hall, CCN: 30448

Some of the issues to be dealt with include management and preservation of timberlands; reducing fire risk through logging; management in wilderness areas; endangered species; importation and exportation of logs; the lives of John Muir and Gifford Pinchot; trees and religion; can rain forests be saved?; killer bees; coral reefs-human threat; jobs versus spotted owls; vegetarianism; Muir Woods, past and present; garbage in the United States; biofuels; solar power; airport expansion in the San Francisco Bay Area; the competition for water; and many more topics to be selected by the students. There is one optional field trip to a Bay Area

location on a Saturday from 8:00 am to 3:00 p.m. to be arranged.

Professor Wood's research interests include host-selection behavior of forest insects, chemical ecology, the biology and ecology of bark beetles, forest pest management, the biodeterioration of wood by insects, and insect/pathogen/tree interactions.

Environmental Science, Policy and Management 24, Section 4

Globalization, Sweatshops, Toxics, and You (P/NP) Professor Dara O'Rourke Wednesday 10:00-11:00, 139 Mulford Hall, CCN: 30451

This seminar will examine where and how the things you consume and use every day-jeans, shoes, computers, coffee, food, paper, etc.-are produced, the environmental impacts of producing and consuming this stuff, and efforts to reduce pollution, sweatshops, and other adverse impacts of global production. Students will analyze both the structure and control of global supply chains and their personal

Dara O'Rourke is an assistant professor in the Department of Environmental Science, Policy, and Management. His research focuses in part on the environmental, social, and labor impacts of, and democratic mechanisms of governance over, global production systems.

connections to these systems.

Enjoy films? Why not take Environmental, Science, Policy and Management 24, Section 2: Science Fiction Goes to the Movies or History of Art 24, Section 1: Looking at Classic Movies? You can also learn more about science fiction by enrolling in Slavic Languages and Literatures 39E: Science Fiction: Problems in Space-Time.

History 24, Section 1
The Berkeley Free Speech Movement of 1964:
An Historical Investigation (P/NP)
Reginald E. Zelnik
Tuesday 2:00-4:00, 3104 Dwinelle Hall, CCN: 39106

Students will take an intense look at various aspects of the Berkeley Free Speech Movement (FSM): its background, proximate causes, how it unfolded, key moments when it might have taken a different turn, explanations and interpretations of what happened, both contemporary and later as well as friendly and hostile; autobiographical writings by participants, both major and minor figures; and the subsequent impact on the university and perhaps the city. The general pattern will be to analyze one aspect of the situation at each meeting, with each student prepared to give a brief report and one or two students giving a more elaborate report as a basis for the discussion. Although acquiring a substantive knowledge and understanding of the FSM will be one of our goals, much attention will be devoted to learning how to use and evaluate primary sources, some of them available on line, and compose historical narratives. One five-page paper is required. This seminar will meet for ten weeks during the first thirteen weeks of the semester; the first seminar meeting will be during the first week of instruction.

Professor Zelnik has been on the UC Berkeley faculty since fall semester 1964, the semester of the FSM. He was involved in the controversy and has co-edited with Robert Cohen a collection of essays, *The Free Speech Movement: Reflections on Berkeley in the 1960s*, which will provide a good part of the reading for his class. His specialty, however, is European History, particularly the history of Late Imperial Russia, with emphasis on the history of labor movements and working-class politics.

History 24, Section 2 Mau Mau: Liberation War in Colonial Kenya, 1952-55 (P/NP) Professor Tabitha Kanogo Tuesday 10:00-12:00, 2303 Dwinelle Hall, CCN: 39109

Before the Zimbabwean guerilla war, Mau Mau was the only armed liberation struggle in British colonial Africa. Mau Mau jolted the public consciousness of diverse communities in Britain, Kenya, the United States, and colonized people in the Third World. Debates regarding the causes, course, and interpretations of the movement continue. This seminar will analyze the social, economic, and political origins of Mau Mau. We shall focus on agrarian, urban, and gender dimensions of the struggle. We will also discuss the social composition of the freedom fighters, the nature of the revolt, and the various interpretations of the guerilla war. This will include an analysis of the portrayal of the movement in the American press in the 1950s. Two short papers will be required. This seminar will meet the first eight weeks of the semester.

Tabitha Kanogo received her Ph.D. at the University of Nairobi, Kenya. She is the author of Squatters and the Roots of Mau Mau, 1905-1963 and is completing a manuscript, Crossing Boundaries: Negotiating African Womanhood in Colonial Kenya, 1900-1960.

History 24, Section 3 The Museums of Berkeley (P/NP) Professor Thomas W. Laqueur Tuesday 2:00-4:00, Location TBA, CCN: 39112

This seminar is about museums in general and the rich museums of Berkeley in particular. Students will be introduced to the history of museums, to social policy questions relating to them, and to some current political debates about collections (the status of Native American artifacts, for example). The core of this seminar however is a series of museum visits that will be led by the instructor and by curators in each venue. We will go to the Berkeley Art Museum, the Berkeley Botanical Garden, the Lawrence Hall of Science, the Hearst Museum, the Bancroft, the paleontology collections, and the Judas Magnes museum (in Berkeley but off campus). One-hour seminars will alternate with two-hour museum tours. We will not meet every week but students need to keep the time slot open. For the location, please visit the Freshman Seminar Program website at http://fsp.berkeley.edu.

Thomas Laqueur is a cultural historian who has written widely on the history of the body, of sexuality, and on questions of death and memory. He is a fan of museums.

#### History 24, Section 4 Michelangelo's World (P/NP) Professor Thomas James Dandelet Tuesday 3:00-4:00, 2227 Dwinelle Hall, CCN: 39114

This seminar will focus on fifteen images from the work of Michelangelo from the late fifteenth century to the mid sixteenth century. Each week we will be pairing an image and a text from the period in order to reflect on the ideas and society that animated Michelangelo and nurtured his work. This includes both the world of high Renaissance Florence and the world of high Renaissance Rome. We will be considering what life was like in the Florence of Lorenzo de Medici, "The Magnificent" and in the world of papal Rome. Works of Michelangelo that we will be using as food for thought include sculptures like the David, the paintings in the Sistine Chapel, and buildings such as St. Peter's basilica and the Capitoline Hill.

Thomas Dandelet is an associate professor of history. He focuses on the Mediterranean world in the Renaissance and Baroque periods with a particular interest in the culture, politics, and society of Italy and Spain. His publications include the book *Spanish Rome: 1500-1700*, published in 2001.

History 24, Section 5 Civil Rights Movement: History and Consequences (LG) Professor Waldo E. Martin, Jr. Day, Time, and Location TBA, CCN: 39781

This course will examine the origins, development, and consequences of the Civil Rights Movement in the United States. Our discussions will build upon a selection of short readings, documentary films, musical texts, and visual artifacts. Our major intellectual preoccupation will be analyzing historical and cultural representations of this watershed moment. For the day, time, and location of this seminar, please visit the Freshman Seminar Program website at http://fsp.berkeley.edu.

Waldo E. Martin, Jr. teaches courses in African American History, American Cultural History, and the United States in the nineteenth and twentieth centuries. He is author of The Mind of Frederick Douglass and Brown v. Board of Education: A Brief History with Documents. He co-edited, with Dr. Patricia Sullivan, Civil Rights in the United States: An Encyclopedia.

#### History of Art 24, Section 1 Looking at Classic Movies (P/NP) Professor David Wright Wednesday 2:00-6:00, 425 Doe Library, CCN: 05554

This seminar will devote twelve Wednesday afternoons to looking thoughtfully at classic movies, treating them as visual art, analyzing particularly the camera work and editing, also the staging and lighting, always seeking to understand how these aspects contribute to the total expressive effect of the movie. Each week one movie will be analyzed closely and students will write a one-page report on a specific aspect of it; then another movie or shorts will be shown to expand students' knowledge of the medium. The movies analyzed will range from *The Last Man* (Germany 1924) to *Bicycle Thieves* (Italy 1949), all of them general release movies widely seen in their time. The movies will normally be shown on DVD, allowing us easily to go back to specific episodes for detailed analysis. No reading is required; there will be no other written work. This seminar is for ordinary moviegoers, not for advanced theorists of film. **This seminar will meet the first twelve weeks of the semester**.

David H. Wright has been a dedicated photographer since childhood; his scholarly research and teaching on art in Rome and Late Antiquity still depend on his photography. He remembers fondly the movies he saw in the 1940s, including what were already recognized as classics, and feels that the era before television deserves special attention.

History of Art 24, Section 2 Imagined Orphans: Missing Parents in Children's Fiction (P/NP) Professor Elizabeth Honig Monday 9:00-10:00, 308B Doe Library, CCN: 05557

From the days of Huck Finn, Pollyanna, and Mary Lennox up to Harry Potter, the central figures in children's literature have an improbably high chance of being orphans. Some are true orphans at the book's beginning, while in other cases the absence of one or both parents is a mystery whose resolution drives the book's plot. This seminar will explore parentlessness as a fantasy and a device in the writing of fiction for children from the late nineteenth century through the twentieth century. It will consider how the orphan represents an adult ideal of essential childhood in some novels, how it allows for a narrative of self-fashioning in others, and how it generally gives its reader a model for imagining eventual independence from the family. Rather than assuming that we have moved from the fantasies of Pollyanna to a more gritty realism of some orphan tales today, this course posits that all children's novels reflect their era's notions about normative childhood and about the psychology of children. We will remain aware of the tenuous relationship between these fictional constructs and actual narratives and conditions of children without parents. Seminar requirements include reading a children's novel each week, class participation, and a short comparative essay.

Elizabeth Honig is an Associate Professor in History of Art, specializing in the arts of Northern Europe from 1500-1700. Her most recent project concerns Jan Brueghel's artistic relationship to his famous but dead father Pieter Bruegel. She started reading fiction at the twelve-year-old level when she was seven and is still doing so today. Recently she has become involved with issues concerning the international transracial adoption of older children.

Integrative Biology 24, Section 1 Disease, Ecology, and Man (P/NP) Professor Cherie Briggs and John Latto Tuesday 4:00-6:00, 4110 Valley Life Sciences Building, CCN: 43003

Recently we have seen the appearance of apparently new diseases such as AIDS, SARS, and BSE (Mad Cow Disease) and a resurgence of some older diseases such as tuberculosis and malaria. In most cases understanding the reasons behind an increase in the prevalence of such diseases requires an understanding of ecology. In this class we will use a variety of case studies to look at how changing disease ecology influences disease prevalence. We will look at how such changing patterns of disease have influenced history (measles, smallpox, bubonic plague, etc.) and at how and why modern diseases are emerging in both man and wildlife. The class will largely use a seminar format with short required readings each week. This seminar will meet the first eight weeks of the semester.

Cherie Briggs received her Ph.D. in 1993 from the University of California at Santa Barbara, and joined the Integrative Biology Faculty in 1997. She is a theoretical ecologist, interested in understanding the dynamics of animal populations. Her research involves both mathematical models of population dynamics and field experiments.

John Latto received his Ph.D. from Imperial College, UK in 1989 and lectures in a number of biology and environmental science classes at UC Berkelev.

Integrative Biology 24, Section 3
The Darwinian Revolution (LG)
Professor Brent Mishler
Thursday 10:00-11:00, 4110 Valley Life Sciences
Building, CCN: 43009

The Darwinian Revolution was one of the greatest upheavals in human thought, involving the very basis of our self-awareness: Where did we come from? What is or should be the basis for our ethics and social behavior? Where are we going? Topics to be considered include historical antecedents of Darwin's theories; the scientific evidence for evolution and natural selection; the impact of Darwinism on religion, social theory, and ethics; later scientific developments and recent challenges by latter-day creationists. The goal is to use these interdisciplinary topics as an exemplar of scientific methods and change, and of the unsteady relationship between science and the public. In addition to attending and participating in each week's lecture/discussion, students will be required to write a short paper, five pages maximum, due at the end of the semester.

Brent Mishler is a Professor in the Department of Integrative Biology and Director of the University and Jepson Herbaria. His research interests are in the systematics and evolution of plants, especially mosses. His lab applies methods ranging from microscopy and computer-assisted morphometrics, through tissue culture and DNA sequencing. He is also interested in the theory of systematic biology, as well as the philosophy and history of science.

Integrative Biology 24, Section 4 The Drunken Monkey: Evolutionary Origins of Alcohol Preference and Addiction (P/NP) Professor Robert Dudley Monday 2:00-3:00, 5053 Valley Life Sciences Building,

CCN: 43012

From fruitflies to barflies, animals of all varieties experience profound behavioral effects from the alcohol produced within fermenting fruit. This seminar presents a new evolutionary perspective on an ancient question: why are many animals, including humans, attracted to alcohol? Recent research has shown that behavioral responses and molecular pathways of drunkenness are shared among many species, and that the preferences of modern humans for alcohol may derive from the diets of our fruit eating ancestors. As in fruitflies, lowlevel but regular consumption of alcohol by humans reduces sickness and increases longevity. Fruitbats in the Mediterranean follow the scent of alcohol to find fermenting fruits. Once at the fruits, feeding rates are stimulated by the presence of alcohol. This seminar encompasses a diversity of topics ranging from alcoholic fermentation by fungi to fruiteating by monkeys to the hereditary nature of alcoholism in modern humans. These perspectives on the natural biology of alcohol will potentially yield insight into contemporary patterns of drinking and addiction.

Dr. Dudley is a Professor in the Department of Integrative Biology, with research interests in evolutionary biology and comparative physiology. He obtained his Ph.D. from the University of Cambridge, and then lived in the rainforest of Panama for five years. His current fieldwork includes sites in Yunnan, the Negev, and Uganda.

#### Integrative Biology 24, Section 5 Dinosaur Biology: An Introduction to Research (LG) Professor Kevin Padian Wednesday 12:00-1:00, 5192 Valley Life Sciences Building, CCN: 43014

If dinosaurs are all extinct, how can we know anything about their biology? The answer to this question gives you the key to how we learn about the past: how we gather information, form and test hypotheses, and propose new questions to ask. This seminar focuses on the methods we use (field, lab, and most importantly intellectual methods), the kinds of information available and not available from fossils, and how we integrate information from living forms to try to reconstruct a view of long-extinct ones. The course sessions reconstruct a view of long-extinct ones. The course sessions require reading preparation, contributions to discussion, and some hands-on experience. By the end, you will probably know more about dinosaurs, but especially about how paleontologists, geologists, and evolutionary biologists know about the processes of life that have produced the biodiversity of the past as well as the present.

Professor Kevin Padian's research focuses on various aspects of macroevolution and paleobiology, particularly of vertebrates. He is mainly interested in the origins of major adaptations, or how "great ideas" in evolution get started. He worked mostly on the origins of flight, on the Triassic Jurassic time boundary, when dinosaurs and other animals took over the terrestrial faunas, on fossil footprints, on the history of evolution and paleontology, and on the influence of Darwin and his work on the Victorian novel.

### Journalism 24, Section 1 Storytelling for Television News (P/NP) Joan Bieder Wednesday 10:00-12:00, 101 North Gate Hall, CCN: 48003

This seminar examines the storytelling process in television news including hard news, news features, television news magazine segments and documentaries. It focuses on reporting and producing, structure of stories and script writing, as well as analysis of storytelling techniques. It concentrates on the major components of visual storytellingsound, video sequences, writing, reporting and interviewing. In previous classes students have produced their own short television story. Only students with a good grasp of current events-on TV and in newspapers-need enroll. Enrollment is limited to twelve students. The seminar meets for eight weeks, beginning February 11, 2004 and ending April 7, 2004.

Joan Bieder is a Senior Lecturer at the Graduate School of Journalism where she teaches courses in television news reporting, writing and producing. She was an ABC-TV network news producer for nine years in the evening news and documentary units. Before coming to UC Berkeley, she taught print and broadcast journalism at Columbia University's Graduate School of Journalism. Ms. Bieder has continued her own work, producing a series of videotapes on broadcast journalism and a film on female journalists in Asia. She frequently spends the summer in Singapore, doing research on freedom of the press, consulting with news staff at the Television Corporation of Singapore and lecturing undergraduates in communications at the Nanyang Technological University. She has studied the history of the Jewish Community in Singapore and recently published a lengthy article and produced a video tape about the community. She holds a bachelor's degree in history from Goucher College. Joan Bieder is a Senior Lecturer at the Graduate School of

Journalism 24, Section 2 Ethics in Journalism (LG) Professor Lydia Chavez Tuesday 12:00-2:00, 127 North Gate Hall, CCN: 48006

Students in this course will role play as editors and reporters and make decisions on whether or not to publish a photo, use a story, name a source. Then they will see what the real editors decided and how readers responded. Enrollment is limited to twelve students. This seminar will meet the first eight weeks of the semester.

Lydia Chavez is an Associate Professor in the Graduate School of Journalism. She received her M.A. in Journalism from Columbia University and has worked at the Los Angeles Times and The New York Times. She recently completed a book, The Color Bind: California's Battle against Affirmative Action.

Journalism 24, Section 3 Old Time Radio (LG) Professor William J. Drummond Friday 12:30-1:30, 104 North Gate Hall, CCN: 48009

This course will examine pioneering radio programming, which dominated American life and culture before television. It will examine news broadcasters, such as Edward R. Murrow, H.V. Kaltenborn and Eric Severeid, as well as entertainment, variety and drama programs. The seminar will examine the many contributions of Orson Welles, from The Shadow mystery series, to the Mercury Radio Theater, to the famous "War of the Worlds" broadcast. The class will rely on the many old time radio web sites to listen. Students will be required to do one major project to get a grade in the course.

William J. Drummond joined the faculty in 1983 after a career in public radio and newspapers. He continues to produce occasional public radio reports and documentaries. From 1979 to 1983 he public radio reports and documentaries. From 1979 to 1983 he worked in Washington for National Public Radio, where he was the first editor of Morning Edition before moving on to become National Security Correspondent. He has produced documentary-length radio programs on a wide range of subjects: Native Americans and welfare reform; jazz diva Betty Carter; Allensworth: the pioneering Negro colony in the California Central Valley; a profile of a psychiatrist whose specialty is interviewing serial killers; the early Jim Crow days in Las Vegas; an examination of why Americans are turned off by the political system; and a look at the tension between Malcolm X and Martin Luther King, as seen through the eves of youth. His honors Martin Luther King, as seen through the eyes of youth. His honors include a 1989 citation from the National Association of Black Journalists for "Outstanding Coverage of the Black Condition," the 1991 Jack R. Howard Award for Journalism Excellence, and a 1994 Excellence in Journalism Award from the Society of Professional Journalists' Northern California Chapter for an advanced reporting class experiment in civic journalism. He was a member of the planning committee that created the Public Radio International program The World.

Journalism 24, Section 4 The Presidential Campaign Trail in Print (and Occasional Film) (LĞ) Susan Rasky Friday 10:00-12:00, 104 North Gate Hall, CCN: 48012

The 2004 presidential primary campaign will be in high gear, a perfect time for political junkies and just plain spectators to check in on the candidates and the key primaries in the race for the White House. We will read a selection of great campaign writing and reporting from presidential seasons past-drawn from Making of the President, Selling of the President, Fear and Loathing on the Campaign Trail, Miami and the Siege of Chicago, What It Takes, and Primary Colors as well as various newspaper and magazine articles and the occasional film. All the while, we will be sampling the current crop of political writers and candidates to see how they measure up against those who came before and each other. This seminar will meet the first eight weeks of the semester.

Susan Rasky is a Senior Lecturer in the Graduate School of Journalism where she teaches political reporting and opinion. Prior to joining the Journalism School faculty in 1991, Professor Rasky was the chief congressional reporter for *The New York Times*. She began her career in Washington covering tax and economic policy for the Bureau of National Affairs Inc. and later Congress and the White House for Reuters. A native of Los Angeles, Rasky received her B.A. in history from UC Berkeley and her M.Sc. in economic history from the London School of Economics. She is a contributing editor to the *California Journal* and *Sacramento Bee*, and a frequent political commentator for public radio and television news programs.

#### Linguistics 24, Section 1 Language and Politics in Southern Africa (P/NP) Professor Sam Mchombo Wednesday 3:00-4:00, 187 Dwinelle Hall, CCN: 52160

This seminar will focus on political developments in Southern Africa and the use of language in fostering national identity and attaining cultural emancipation. We will look at case studies representative of the dynamics of the region. The topics covered will include a brief history of the peoples of Southern Africa; family structure, kinship systems, and traditional political institutions; cultural practices and religious beliefs; the impact of contact with western culture and civilization on language issues and political organization; language and its role in fostering national identity in post-independence Africa; models of national language policy in multi-ethnic societies; and language use in the politics of democratic transition. Since the course is a seminar, students will be expected to participate actively in the class. There will be a course reader. There will be no examinations. Grades will be based on one 500-word paper and class participation.

and class participation.

Sam Mchombo is an Associate Professor in the Department of Linguistics, which he joined in 1988. He received his B.A. from the University of Malawi and Ph.D. from the University of London. He pioneered and taught courses in Linguistics and African Language Structure in what is now the Department of African Languages and Linguistics in the University of Malawi. From 1985-1988 he was a member of the Linguistics faculty at San Jose State University, teaching courses on general linguistics, syntax, and semantics. His research focuses on grammatical theory and African linguistic structure. Recently, he has also focused on aspects of African politics, delivering talks at the World Affairs Council on emergent democracies, as well as human rights in Africa. His publications include Theoretical Aspects of Bantu Grammar and "Democratization in Malawi: Its Roots and Prospects," published in a volume edited by Jean-Germain Gros called Democratization in Late Twentieth-Century Africa. Other works include papers on "National Identity, Democracy and the Politics of Language in Malawi and Tanzania," as well as "The Role of the Media in Fostering Democracy in Southern Africa," both published in The Journal of African Policy Studies. His book manuscript called The Syntax of Chichewa is to be published by Cambridge University Press. In Spring 2003, he was appointed Distinguished African Scholar by the Institute for African Development at Cornell University.

#### Materials Science and Engineering 24, Section 3 Materials and Weapons of War through History (P/NP) Professor J.W. Morris, Jr.

Friday 3:00-4:00, 348 Hearst Mining Building, CCN: 53403

For most of known history, advances in materials technology have appeared primarily in two areas: objects of art and weapons of war. The former build civilization. The latter have often set its course, as critical military engagements from Kadesh to Kosovo have most often been dominated by the forces with the superior technology. In this seminar, we shall use the development of weapons through history as a vehicle to understand the important properties of different types and classes of materials, and trace their technological development and technical significance across the millennia.

Professor Morris has been a member of the Berkeley faculty since 1971, and was Program Leader for the Advanced Metals Program at the Lawrence Berkeley Laboratory for almost twenty years. He has taught the introductory course Material Science and Engineering 45

for most of that period, and is a recipient of the University's Distinguished Teaching Award.

#### Mathematics 24, Section 1 What is Happening in Math and Science? (P/NP) Professor Jenny Harrison Friday 3:00-4:00, 891 Evans Hall, CCN: 54573

In this seminar, we will discuss the latest developments in science and math. Students will present short oral reports from articles of their choice in the Science Times, Scientific American, Science News, or articles in What is Happening in the Mathematical Sciences. Discussion and debate are encouraged when ethical issues arise from breakthroughs such as human cloning and genetic engineering of food and animals. Students are encouraged to think of applications and possibilities of new research projects. Creative thinking is encouraged! Students considering a major in math or science have found this seminar a useful resource to help clarify their choice.

Jenny Harrison obtained her Ph.D. in mathematics in Warwick, England. She has taught at Oxford, Princeton, and Yale, as well as UC Berkeley. Her research interests include extensions of calculus to fractal domains and soap film modeling. Applications of this theory to sciences may arise during this seminar.

## Mechanical Engineering 24, Section 1 Art and Science on Wheels (P/NP) Professor Benson H. Tongue

Wednesday 1:00-2:00, 6153 Etcheverry Hall, CCN: 56003

This seminar will examine two devices near and dear to many my heart—the automobile and the bicycle. Both of these have undergone a long history of change and innovation; both inspire passion in their users and both embody technical as well as artistic excellence. Some issues we will look at will be efficiency, alternative power sources, environmental impact, dynamics, aerodynamics and handling. Along the way we'll dispel some myths, and ideally people will leave with a deeper appreciation for what bicycles and cars truly represent. Enrollment is limited to thirteen students.

Benson H. Tongue is a Professor in the Department of Mechanical Engineering and has been a member of the faculty since 1988. His interests lie in the fields of vibrations, dynamics and controls, not to mention Scottish dancing, bicycling and bird watching. He is the author of *Principles of Vibrations*.

#### Molecular and Cell Biology 90B, Section 1 Biology in the Post-Genomic Years: Where is the Program for Life? (LG) Professor Richard Strohman Tuesday 12:00-2:00, 332 Giannini Hall, CCN: 58280

In this seminar, we will read published essays and interviews with well known biologists and other scientists who discuss their view of a science of life and how that science might be structured: how might it differ from a purely mechanistic or reductionist science so characteristic of the physical sciences? Out of your reading and our group discussion we will try to define the important questions and various alternatives in a science of life in the post-genomic era. Students with an interest in the philosophical-historical background of science are especially invited to consider this seminar.

Professor Strohman has been chair of UCB Zoology Department (1973-1976) and director of UC Berkeley's Health and Medical Sciences Program (1976-79). While on leave from UC in 1990, he was Research Director for the Muscular Dystrophy Association's international effort to combat genetic neuromuscular diseases. Retired in 1991, he continues to teach courses and provide critical analysis dealing with the interface between biology and medicine, and the growing crisis in theoretical biology stemming from an over dependence on genetic reductionism.

#### Molecular and Cell Biology 90E, Section 1 Consciousness: One of the Last and Deepest Unsolved Biological Problems (P/NP) Professor Gunther S. Stent Monday 2:00-4:00, 321 Haviland Hall, CCN: 58289

Consciousness differs in three essential aspects from other phenomena of the natural world: its qualitative character, its subjectivity, and the unity of its experience. Those aspects do not exclude consciousness from the realm of natural phenomena, however. Since consciousness is the product of processes that occur in our brain, understanding it is obviously a biological problem, albeit an especially difficult, fascinating, and troublesome one. For that very reason, the study of consciousness has become very á la mode among the romantics in science, such as the Faustian types who, fifty years ago, laid the conceptual foundations for molecular biology. Their work has been greatly facilitated by the recent development of powerful, novel imaging methods, such as positron emission tomography (PET), capable of directly observing the living brain of conscious human subjects while they think, perceive, and initiate voluntary movements.

Gunther Stent is a Professor Emeritus of Neurobiology in the Department of Molecular and Cell Biology. He has been a member of the UC Berkeley faculty since 1952. His teaching and research have concerned both molecular genetics and neurobiology, as well as the history and philosophy of science. He is a member of the US National Academy of Science, the American Academy of Arts and Sciences, and the American Philosophical Society.

#### Molecular and Cell Biology 90E, Section 2 Brain Science in Contemporary Fiction (P/NP) Professor Walter J. Freeman Wednesday 12:00-2:00, 2312 Tolman Hall, CCN: 58292

This seminar will offer you the opportunity to learn some brain science and its history. You will also read works of modern fiction that involve interpretations of the nature of mind as it relates to brain, and meet to discuss your findings and views. Fiction writers often tell us more about who we are and where we are going than do philosophers and neuroscientists. Some of the writers are scientists or clinicians who use fiction to by-pass the constraints of scientific journals. Others are people like yourselves, who read what scientists have written and then extrapolate from their own experience. We invite you to envision your own future. Keep a record and you'll be able to compare your thoughts now with your thinking when you graduate. This seminar will meet for eight weeks, beginning January 20, 2004 and ending March 9, 2004.

Walter J. Freeman studied physics and mathematics at M.I.T., philosophy at the University of Chicago, medicine at Yale University (M.D.1954), internal medicine at Johns Hopkins, and neurophysiology at UCLA. He has taught brain science at the University of California, Berkeley since 1959.

#### Music 24, Section 1 Israeli Ethnic Music (P/NP) Professor Benjamin Brinner Tuesday 11:00-12:00, 134 Morrison Hall, CCN: 60421

Over the past twelve years a new musical scene-curiously labeled Israeli ethnic music—has arisen in Israel, centering on music that does not fit the widely accepted categories of art, popular, or folk. The bands that create this scene draw on various kinds of Middle Eastern music as well as other musical traditions to create new mixtures and new ways of making music. Of particular interest are the groups that involve Arab and Jewish musicians because they face an array of sociopolitical obstacles in addition to the artistic and economic challenges faced by all path-breaking musicians. In this class we will listen to a cross-section of this music and read reviews and publicity material in English in an attempt to come to grips with the positioning of this music in Israeli society, and in the American and European world music scenes. Weekly assignments will include short reading and listening selections on reserve in the Music Library and participation in classroom and online discussion of these items. No musical training is required.

Professor Benjamin Brinner has been researching the phenomenon of Israeli ethnic music ever since its inception and is finishing a book on the subject. As an ethnomusicologist his research interests have also included Javanese and Balinese music, and issues of musical competence, interaction, and memory.

Natural Resources 24, Section 1 Dean's Day Out (P/NP) Associate Dean Lynn Huntsinger Friday 4:00-5:00 pm plus field trip, 260 Mulford Hall, CCN: 61303

Follow your food from seed to salad (and steak) on a one-day, all day field trip from lab to farm to dinner. We will learn about the nutritional, environmental, and controversial

aspects of food production in the Bay Area. This seminar meets three times: Friday, January 30, 2004 from 4:00 to 5:00 p.m. for an organizational hour; Friday, April 2, 2004 from 4:00 to 5:00 p.m. for trip planning; and Saturday, April 3, 2004 from 8:00 a.m. to 9:00 pm for the field trip. Field trip attendance and participation is required to pass this class.

Lynn Huntsinger is Associate Professor in the Department of Environmental Science, Policy and Management (ESPM) and the Associate Dean of Instruction and Student Affairs for the College of Natural Resources . Her expertise is in agriculture, ecological history, and rangeland ecology and management. For more information regarding Professor Huntsinger, please visit her website at http://espm.berkeley.edu/ directory/fac/huntsinger\_I.html.

Natural Resources 24, Section 2 Global Environment House Freshman Seminar (P/NP)

Professors Peter Berck and Allen Goldstein Tuesday 5:30-6:30 p.m. plus field trips, Foothill Classroom A, CCN: 61306

The goal of this freshman seminar is to bring students and faculty together to explore issues such as global environmental change, policy and management of natural resources, sustainable rural and urban environments, and environmental leadership. The seminar will provide students and faculty a forum to exchange ideas, challenge one another's thinking, and share experiences in a small group setting. Students will have the opportunity to do research and teach their peers about regional to global environmental issues in preparation for Theme Program field trips and guest speakers. This seminar will be limited to residents of the Global Environment House Theme Program sponsored by the College of Natural Resources and Foothill Student Housing. After the formal sessions, professors and students may continue their discussion informally over dinner in the Dining Commons. This seminar is part of the new Freshman Seminar Program Dinner Series.

Peter Berck is a Professor of Agricultural and Resource Economics and Policy. He was an undergraduate at Cal, received a Ph.D. in Economics from MIT in 1976, and has been teaching at Cal ever since. His research has been on the economics of forestry, fisheries and water, on food security in developing nations, and on the costs of environmental regulation.

Allen Goldstein is an Associate Professor of Biogeochemistry in the Department of Environmental Science, Policy and Management, a core member of the Berkeley Atmospheric Science Center, and a faculty chemist at Lawrence Berkeley National Laboratory. He received a B.S. in Chemistry and a B.A. in Politics from UC Santa Cruz, and a Ph.D. in Chemistry from Harvard University. His research addresses the interface between natural and anthropogenic influences on regional and global atmospheric composition and chemistry. He initiated development of the Global Environment House residential theme program and currently serves as the program chair.

#### Natural Resources 24, Section 3 California Alive: An Overview of Biodiversity in California (P/NP) Dr. Carol Baird and Ian Signer Wednesday 12:00-1:00, 139 Mulford Hall, CCN: 61309

Are you aware that California is one of the most biologically diverse regions on earth? This course will focus on the biomes and ecological habitats of California, their community biology, and the paleogeographical features that have contributed to the immense richness of the state. The group will explore these biomes in class seminars, media presentations, and on short local field trips to representative habitats. Assignments will include exercises on some of the more exciting habitat restoration and conservation projects.

Dr. Carol Baird received her doctoral degree in ecology at UC Berkeley; she has been a lecturer in the Biology 1 series on campus. She maintains a strong interest in state and local conservation and ecological issues, and has developed educational programs on campus and at the UC Botanical Garden that reflect that interest. She is the Director of the California Institute for Biodiversity.

lan Signer has spent the past ten years teaching in formal and informal settings as a naturalist, writer, expedition leader, and curriculum specialist. As such he has helped design educational programs with local and international organizations such as World

Wildlife Fund and the National Geographic Society. For the past five years, he has focused on California natural history as an educator with the California Institute for Biodiversity, and he holds a Master's in Geography, with a focus on the ways California Indian people shaped the landscape through ongoing resource management.

#### Naval Sciences 24, Section 1 Asymmetric Conflict: Ethics of Guerilla Warfare and Terrorism (LG) Professor Lee H. Rosenberg MW 1:00-2:00, 155 Hearst Gym, CCN: 57915

What is the nature of war? What constitutes just or unjust war? Who are legitimate combatants? How do terrorists and freedom fighters differ? In this seminar we will trace the origins and review the practices of asymmetric armed conflict, guerilla warfare and terrorism; examine the political roles of combatants and civilian populations in asymmetric warfare; and analyze the theoretical and practical considerations of asymmetric conflict. This seminar will meet for eight weeks, beginning January 21, 2004 and ending March 17, 2004.

Lee H. Rosenberg is a Captain in the United States Navy. He is chair of the Naval Science Department and Director of the Military Affairs Program at UC Berkeley. Before coming to UC Berkeley, Captain Rosenberg was Commanding Officer of Assault Craft Unit 5 at Camp Pendelton, California. He also commanded USS Elliot (DD-967) and deployed with his command to the Persian Gulf. Captain Rosenberg is a combat veteran of Operation Desert Storm. He has spent several years in the Middle East during various tours with the U. S. Navy.

#### Nuclear Engineering 24, Section 1 Scientific Frauds and Hoaxes (P/NP) Professor D.R. Olander Monday 2:00-3:00, 3117B Etcheverry Hall, CCN: 64003

Students will explore the famous cases of fraud and deception in science over the last few centuries. Included are cases such as the Piltdown Man, polywater, cold fusion, astrology, perpetual motion machines, and the many cases of falsification in the behavioral and biosciences. Students will select a particular case of deception to investigate and report on by a brief presentation to the group and a short written report.

Professor Olander has been involved in many aspects of nuclear technology for the thirty some odd years that he has been teaching at UC Berkeley. He is both an experimentalist and a theorist, whose research topics include reactions of gases on surfaces, methods of uranium enrichment, and the behavior of the fuel and structural materials in nuclear reactors. The courses he teaches in the Nuclear Engineering Department are Nuclear Materials, Corrosion in Nuclear Power Systems, and Radiation Effects on Metals.

#### Nutritional Sciences and Toxicology 24, Section 1 The Spring Semester Freshman Experience (P/NP) Professor George W. Chang Thursday 10:00-11:00, 138 Morgan Hall, CCN: 64596

Fall extension freshmen are especially encouraged to take this seminar. But we'll welcome anyone who may be asking questions such as the following: How should I deal with The Roommate from Hell? Must every student gain the freshman fifteen pounds of weight? Why is everyone so stressed out? What do you do when you have more reading this week than you had in all of high school? Is Chemistry 1A really the most dreaded course in America? Why can't my GSI speak American English? Must a university have assignments and exams? In this seminar we will collect questions like these, choose some of them for further discussion, and then work out possible solutions with the help of your fellow students, readings from the Student Learning Center, and maybe the Internet

Professor Chang received an A.B. in chemistry from Princeton and a Ph.D. in biochemistry from Cal. His research is in food microbiology with an emphasis on detecting fecal contamination in water and food. He has been heavily involved in undergraduate affairs, serving on the Undergraduate Affairs Committee, the Committee on Courses, and the Committee for Undergraduate Scholarships and Honors of the Academic Senate. He has also served on ad hoc committees dealing with disabled students and the need to develop a sense of community across the UC campuses. But his most exciting assignments were to serve on The Chancellor's Commission to Study the University's Responses to a Diversified Student Body and to help start the Global Environment Theme House.

#### Nutritional Sciences and Toxicology 24, Section 2 Fad Diets (P/NP) Professor Nancy Amy Thursday 11:00-12:00, 138 Morgan Hall, CCN: 64599

Fad diets, which claim to have discovered new miracle ways to lose weight, have been around for many years. The same handful of diets seems to keep resurfacing every few years. We will compare the ideas in the current crop of diets with basic nutrition information. We will discuss some of the current ideas about the genes relating to obesity.

Nancy Amy is an Associate Professor of Nutrition. She has been teaching Introductory Nutrition (NS 10) for as long as she can remember, and she loves the energy of that course. Her research interests are in the genetics of how the body uses trace elements. However, since she is a member of our society, which appears to be obsessed with thinness, she has succumbed to some of the hype and is also interested in body size.

#### Physics 24, Section 1 Physics of Sports (P/NP) Professor Joseph Orenstein Tuesday 11:00-12:00, 567 Evans Hall, CCN: 69895

Athletes today can propel baseballs to distances of 500 feet and golf balls to distances of 1200 feet. In the case of golf, a clubhead moving at approximately 120 miles per hour collides with a ball to impart an initial velocity of approximately 185 miles per hour. During the course of this semester we will investigate the physical principles that govern how the ball is launched as a result of these powerful collisions, as well as its subsequent flight. In the process we will learn about conservation of energy and angular momentum, elastic versus inelastic processes, and the aerodynamics of lift and drag. Improvement in athletic performance is not guaranteed.

After ten years in the Material Physics Department of Bell Laboratories in New Jersey, Professor Joseph Orenstein migrated west to UC Berkeley in 1990. Since then he has been a Professor in the Department of Physics and taught a wide variety of courses, both graduate and undergraduate. Professor Orenstein's research is in the field of high-temperature superconductivity. His research group uses optical techniques, based on short-pulse lasers, to try to understand the intricate behavior of conducting electrons in these materials.

#### Plant and Microbial Biology 24, Section 2 Microbes Make the World Go 'Round (P/NP) Professor Loy Volkman Tuesday 4:00-5:00, 107 Mulford Hall, CCN: 70806

Microbes make the world go 'round, and this seminar will show you why. Microorganisms inhabit just about every conceivable niche on this planet and are the dominant life form many times over. Because of their incredible array of metabolic capabilities, microorganisms range in their lifestyles from free-living organisms to essential symbionts of other life forms. They are at once formidable pathogens, producers of fine wines and cheeses, and our best hope for pollution remediation. Microorganisms hold clues to the origin of life and are key components of snow-making machines. In this seminar, you will learn about these topics, be introduced to world-famous microbial biology faculty members and gain insight into whether majoring in microbial biology is for you. In order to pass, students must attend class regularly (only one can be missed), write a paragraph or two on the topic that held the greatest interest for them, and present this to the rest of the class during the last two class periods in the semester.

Loy Volkman is a Professor in the Department of Plant and Microbial Biology and has taught at UC Berkeley for twenty years. She studies baculoviruses, a group of viruses that infect insects. Her studies focus on baculovirus pathogenesis and host resistance mechanisms. For more information regarding Professor Volkman, please visit his web pages at http://mollie.berkeley.edu/~volkman or http://plantbio.berkeley.edu/faculty/faculty\_pages/Volkman.html.

#### Political Science 24, Section 1 Utopian Political Thought (LG) Professor Norman Jacobson Thursday 2:00-4:00, 749 Barrows Hall, CCN: 72186

Utopias come in many forms, and with differing intentions. There are literary utopias, psychological utopias, technological utopias, and so on and on. The focus of the course, however, will be on political utopias, and on utopian thinking, that is, the urge, beginning with Plato, to wipe the

slate of conventional political values, institutions, and practices clean, in the service of a new vision. As well as entertaining various political utopias, we will examine critiques of utopian thinking from a variety of points of view.

Norman Jacobson is a Professor Emeritus of Political Science and has been teaching at UC Berkeley since 1951. He is a consulting professor at Stanford University. His fields include political philosophy and literature, and American political thought. Professor Jacobson was honored as the 1988 California Professor of the Year. His most recent publications are "Escape from Alienation" in *Representations* and "Damn Your Eyes!' Thoreau on (Male) Friendship in America," in *Friends and Citizens*.

Political Science 24, Section 2
Problems in East Asian Politics (P/NP)
Professor Lowell Dittmer
Monday 5:00-7:00, Library in Unit Three at 2400 Durant
Avenue, CCN: 72189

East Asia is the only region to increase its GNP relative to the rest of the world in the past two decades. Yet it has also been a problematic region, involving the United States in two costly land wars since World War II, afflicted by poverty and inequality as well as progress. This seminar will focus on three persistent problem areas in East Asia: 1) East Asia and terrorism since September 11th; 2) the divided nations of Vietnam, China, and Korea; and 3) the Asian financial crisis and the problem of globalization. This seminar is part of the new Freshman Seminar Program Dinner Series and Professor Dittmer looks forward to dining with his students in the Unit Three Dining Commons from 6:00 -7:00 pm each week to continue the discussion in a more informal setting.

Lowell Dittmer is a Professor of Political Science and editor of Asian Studies. He has authored four books, co-authored two books, co-edited three books, and written numerous papers on various aspects of Chinese domestic and foreign policy.

#### Public Health 24, Section 2 Women, Weight and Food (P/NP) Professor Barbara Abrams Tuesday 11:00-12:30, 123 Dwinelle Hall, CCN: 75903

The United States combines the most abundant food supply in the history of the world with a cultural obsession with thinness and perfection that affects women's body images, sexuality, and sense of power. In this seminar, we will study these relationships from medical, public health, cultural, social, historical, economic, psychological and political perspectives. Topics include food, physical activity, psychological health, obesity and eating disorders, the effectiveness and drawbacks of various dieting regimens, views of beauty, eating and weight in different subcultures, cultures and societies, the food industry and social messages underlying media advertising. Through readings, discussion and experiential exercises, we will attempt to arrive at a definition of healthy weight and strategies for healthy eating for women.

Dr. Abrams is a Professor of Public Health. She teaches courses in epidemiology, nutrition, maternal and child health and women's health. Prior to teaching at UC Berkeley, she worked as a nutritionist and taught in the Department of Obstetrics, Gynecology and Reproductive Sciences at UC San Francisco. Her research focuses on the relationship between maternal nutrition and the outcome of human pregnancy, postpartum health, and menopause. She is currently working on a study that addresses the prevention of HIV transmission from mother to child.

#### Rhetoric 24, Section 1 Bad Books and How to Spot Them (LG) Professor Daniel F. Melia Monday 1:00-2:00, 7415 Dwinelle Hall, CCN: 77860

The world is full of Bad Books—not just uninteresting or uninformed or morally repugnant books, but books that set out to present or defend positions that are unsupportable in logic. I speak here not of books like Hitler's *Mein Kampf*, but of books such as von Daniken's *Chariots of the Gods*, which presents "proof" of visits to earth by extra-terrestrials, or Barry Fell's *America B.C.* which "proves" that ancient Celts reached North America before the time of Christ. Often these Bad Books become quite popular. This seminar will examine the proposition that there is a recognizable rhetoric common

to many such Bad Books and investigate possible reasons why they often gain a wider audience than Good Books on the same subjects.

Daniel F. Melia is an Associate Professor in the Department of Rhetoric and the Program in Celtic Studies. His areas of interest include oral literature, Celtic languages (Welsh, Irish), folklore, medieval history and literature. For more information, please see Professor Melia's faculty biography on the web at http://rhetoric.berkeley.edu/faculty\_bios/daniel\_melia.html.

#### Rhetoric 24, Section 2 The Philosophical Discourse on Terrorism (LG) Professor Frederick Dolan

Wednesday 10:00-11:00, 7415 Dwinelle Hall, CCN: 77863

This seminar is a discussion of the contributions made by philosophers to the debates surrounding September 11, 2001. Philosophers to be read include Jacques Derrida, Jürgen Habermas, Jean Baudrillard, Slavo Zizek, Paul Virilio, and Roger Scruton.

Professor Dolan received his Ph.D. from the Program in Political Philosophy at Princeton, and studied and taught for several years in Paris before coming to UC Berkeley in 1988. He is interested in many areas of philosophy, rhetoric, and political theory, most having to do in some way or another with the nature of modernity. He regularly offers an upper-division introduction to modern and contemporary political philosophy, and often teaches advanced undergraduate seminars and courses in special topics. He has taught the upper-division Rhetoric requirement in Approaches and Paradigms in Modern Rhetorical Theory, and the lower-division requirements in Rhetorical Interpretation and Argument and Analysis. Please visit http://socrates.berkeley.edu/~fmdolan for more information.

#### Scandinavian 24, Section 1 The Norse Discovery of America (P/NP) Professor John Lindow Wednesday 1:00-2:00, 6415 Dwinelle Hall, CCN: 78726

One thousand years have now passed since the first documented visit of Europeans to North America, in voyages by Leif Eiriksson and others from the Norse colonies in Greenland. In this seminar we read *Grænlendinga Saga* (The Saga of the Greenlanders) and *Eirik's Saga*, which are the principal sources, as well as other pertinent materials from both the Middle Ages and our own times, including archaeological analyses. Our aim is an assessment of the primary sources in context and a consideration of some of the more interesting of the numerous problems that have arisen in connection with this subject.

John Lindow is Professor of Scandinavian. His research and teaching treat medieval Scandinavian culture and the more recent folklore of northern Europe. His latest book is *Norse Mythology*.

#### South and Southeast Asian Studies 24, Section 1 Gandhi's Non-violence (LG) Professor Vasudha Dalmia

Tuesday 4:00-6:00, 223 Dwinelle Hall, CCN: 83112

Gandhi's non-violence is intimately linked to satya or truth as it is lived in everyday life and in political struggle. Agraha comes from the Sanskrit root, grah, to grasp, to hold on to, in later usage also with the meaning, to insist. The phrase satyagraha was coined after the movement came into being in South Africa in the early twentieth century. Initially, for the want of a more adequate phrase, the term passive resistance was used to designate the movement. But there was an unwelcome association with passivity. Gandhi saw himself compelled to establish the great and fundamental difference, as he called it, between the two. In this seminar, we shall read and discuss Hindi Swaraj, Gandhi's radical critique of modern civilization, and his autobiography, The Story of My Experiments with Truth, in an attempt to grasp the relevance of Gandhi's concepts of truth and non-violence today. This seminar will meet for ten weeks beginning in the second week of instruction and ending in the eleventh week. Enrollment is limited to fifteen students.

Vasudha Dalmia is Professor of Hindi and Chair of the Department of South and Southeast Asian Studies. She has researched and published widely on Hinduism, colonial and post-colonial Hindi literature, medieval Indian religiosity, and modern Indian theatre.

Spanish 24, Section 1
Talking Funny: Language Variation in Spanish and English Literary Texts (LG)
Professor Milton Azevedo

#### Wednesday 10:00-11:00, 220 Wheeler Hall, CCN: 86196

This seminar analyzes language through the literary representation of regional and social varieties of Spanish and English (as in Mark Twain's Adventures of Huckleberry Finn or Guillermo Cabrera Infante's Tres Tristes Tigres) and discusses social and cultural implications of language variation. It is taught in English with readings in both English and Spanish. Grade will be based on required participation in class discussions and a final oral presentation on an individual project. The reader will be available at CopyCentral on 2560 Bancroft Avenue. Ability to read Spanish and understand spoken Spanish is essential.

Professor Milton Azevedo (M.A. 1971, Ph.D. 1973, Cornell University) has been at UC Berkeley since 1976 and works on applications of linguistics to the analysis of literary texts.

Spanish 24, Section 2

La Celestina: Sex, Witchcraft and Violence in the Spanish Middle Ages (P/NP)
Professor Ignacio Navarrete
Tuesday 2:00-3:00, 106 Dwinelle Hall, CCN: 86199

For Calisto it was love at first sight when he wandered into Melibea's Garden. Or was it lust? At the suggestion of his servant Sempronio, he hires the witch Celestina to help him seduce Melibea. She succeeds, but by the end of the book Sempronio murders Celestina and is himself executed, Calisto is dead and Melibea commits suicide. In this seminar we will read *La Celestina*, the first modern Spanish novel, and in our weekly meetings discuss its careful dissection of corruption, hypocrisy, and human motivation. The seminar will offer an open atmosphere to discuss this book and its relevance to young people today, with the option to participate in either Spanish or English. Prerequisite: the equivalent of Spanish 4 (AP score of 5 in Spanish or 5 years of Spanish in junior high/high school).

Professor Ignacio Navarrete was born in Cuba, grew up in New York, and has taught at UC Berkeley since 1987. His area of specialization is fifteenth- and sixteenth-century Spanish literature, and he has taught *La Celestina* in a variety of undergraduate and graduate courses.

#### Theater, Dance and Performance Studies 24, Section 1 Berkeley Little Theater (P/NP) Professor Albert H. Bowker Tuesday 3:00-4:00, 283 Dwinelle Hall, CCN: 88033

The vibrant world of little theater–from the polished elegance of professional repertory theaters to groups performing in rooms behind stores–gives an insight into the nature of theater and our response to it that cannot be derived from the large traveling shows or major theaters in big cities. We will explore this world right here in Berkeley. Students will attend a set of theater performances presented by the Department of Dramatic Art, Berkeley Repertory Theater, Aurora and other groups including the Shotgun Players. We will attend the theater every other week and will have a discussion of the play with a theater representative directly after each performance. Tickets will be provided. The class is limited to fifteen freshmen. Students must be flexible and attend the theater on nights tickets are available, often Thursday or Sunday. Students will be asked each time to verify attendance.

Albert Bowker is Professor of Statistics and Chancellor Emeritus. He is a theater fan and has been a habitual member of the audience.

Theater, Dance and Performance Studies 24, Section 2
Acting from the Outside In: Training

Interculturally (LG)
Professor Sudipto Chatterjee
Thursday 4:00-6:00, 235 Dwinelle Hall, CCN: 88036

American theatre during the twentieth century has overemphasized the Method school of realistic acting, where the actor is taught how to empathize with her/his character and relate the character's experiences with the actor's own personal emotions and experiences. While this has yielded tremendous results, thanks to teachers like Lee Strasberg, Stella Adler, and Sandy Meisner, and has been understandably celebrated for a century, it has also tacitly

become the single most popular approach to acting. But in the intercultural theatre scene of the new century, actors are being exposed to various kinds of acting styles and more plays demanding different kinds of performance skills where training in the Method is more than often proving inadequate. This class, using tools from non-Western systems of actortraining, will be an attempt to teach students how to approach a character from the outside and not necessarily by relating it with the actor's psyche from the inside, but rather by getting the actor connected to the world of the character by more external means. In addition to group exercises, students will work on monologues and scenes in different styles of acting through the semester. No textbooks are required. Some prior acting experience preferred. Enrollment is limited to twelve students. This seminar is part of the new Freshman Seminar Program Dinner Series and Professor Chatterjee looks forward to dining with his students in the Unit Three Dining Commons from 6:00 - 7:00 pm each week to continue the seminar discussion in a more informal setting.

Assistant Professor Sudipto Chatterjee earned his Ph.D. at New York University focusing on Asian and Asian-American performance and film, post-colonial performance, and modern and contemporary performance theory. His dissertation on nineteenth-century Bengali Theatre won the Michael Kirby Memorial Prize in 1998. He is the author of fourteen plays and translations in Bengali and English. In 1999, he was awarded the New York Drama Circle Award of Distinction for translation and direction of Nuraldeen's Lifetime (by Bangladeshi playwright, Syed Shamsul Haq), a bilingual production in Bengali and English. He directed Girish Karnad's Hayavadana and The Playboy of the Western World at Tufts University, as well as Badal Sircar's Bhoma at Massachusetts Institute of Technology. In 2002, he directed Birpurus, his own Bengali adaptation of The Playboy of the Western World, in Kolkata, India. For ten years, he was the Artistic Director of Epic Actors' Workshop and Choir in New York and is also a performer and filmmaker.

#### Undergraduate Business Administration 24, Section 1 Economic Development of Modern China (P/NP) Professor Richard H. Holton Wednesday 10:00-11:00, C250 Cheit Hall, CCN: 08460

This seminar will encourage the participants to explore the principal features of China's economic development over recent decades. An oral presentation addressing a problem area of particular interest to the individual student will be required.

Professor Richard Holton joined the UC Berkeley faculty in 1957. He holds a BSc. from Miami University in Ohio, an M.A. from Ohio State University, and a Ph.D. in economics from Harvard. His research and teaching are focused on marketing and economic development, antitrust publicity and international management. President John F. Kennedy appointed Professor Holton Assistant Secretary for Economic Affairs in the U.S. Department of Commerce in 1962 and he returned to UC Berkeley in 1965. Professor Holton was a member of the founding faculty, and later dean, of the National Center for Management Development at Dalian, PRC. He has returned frequently to China since then. Professor Holton was Dean of the Business School at UC Berkeley from 1967-75.

Vision Science 24, Section 1 The Human Eye (P/NP) Professor Richard C. Van Sluyters Monday 3:00-5:00, 300 Minor Hall, CCN: 66403

This seminar will include a series of instructor-led discussions on the structure and function of the human eye and its appendages. The use of standard clinical instruments to view the exterior and interior of the eye will be demonstrated. Students will then employ these instruments to observe one another's eyes. Digital images of the iris will be captured and provided to each student. Examples of the topics to be discussed include the following: Why is the cornea so clear and the sclera so white? Why is the iris so beautifully colored? What is the fluid in the eye, where does it come from, and where does it go? How do the skull and bony orbit protect the eye without hindering its performance? How do the appendages of the eye—the eyelids and eyebrows—work, and what are their functions? How does the eye adjust its focus from far to near, and why do we lose this ability with age? How do contact lenses work, and what happens to the cornea when laser refractive surgery is performed? This seminar will meet approximately every other week throughout the semester, beginning the first week of the semester.

Professor Richard C. Van Sluyters joined the faculty of the School of Optometry in 1975, and currently serves as the School's Associate Dean for Student Affairs. He received his undergraduate training at Michigan State University, studied optometry at The Illinois College of Optometry and was a graduate student at Indiana University. He holds doctorates in optometry and vision science and was a postdoctoral fellow at Cambridge University in England. He teaches courses on the anatomy and physiology of the visual system.

Vision Science 24, Section 2 Clinical Approaches to the Human Eye (P/NP) Professor Robert B. DiMartino Wednesday 1:00-3:00, B210 Minor Hall, CCN: 66406

This seminar introduces the student to the profession and clinical science of optometry. The student will use various instruments and techniques to gain insight into the anatomy of the eye. Light refraction by the ocular lenses will be presented. This seminar will meet approximately every other week throughout the semester, beginning the first week of the semester. Enrollment is limited to seven students

Robert B. DiMartino is an Assistant Professor of Clinical Optometry. His research and clinical interests include allergic ophthalmic disease, ocular manifestations of diabetes, and ocular pathology.

### Freshman and Sophomore Seminars

Most of the following courses are limited to 20-25 students. First- and second-year students are given priority for enrollment. Most of these courses fulfill Letters and Science breadth requirements; consult *A Guide for Students in the College of Letters and Science: Earning Your Degree.* If a course is designated as requiring the consent of the instructor, or if you would like additional information, please contact the undergraduate assistant in the department offering the seminars.

Want to broaden your knowledge of **China**? Check out enrolling in Undergraduate Business Administration 24, Section 1: Economic Development of Modern China or History 39D: Two Empires: China and Rome.

Comparative Literature 39E Gods and Monsters: Concepts of the Alien Other in the European Middle Ages (4 units, LG) Visiting Professor James Whitta TuTh 2:00-3:30, 156 Dwinelle Hall, CCN: 17278

The medieval world used the categories of the demonic and the monstrous to think about many things. Especially important as a means of defining the self in society, such oppositional categories of deviance or heterodoxy helped to establish norms for self and society—and police their borders. In this seminar, by examining a wide variety of medieval literary and visual evidence, we will attempt to formulate a sense of how non-normative categories of being or experience were defined and contained in the Western European Middle Ages. We will look at specimens of heterodox, marginalized, "dangerous" thought (religious dissent and heresy, witchcraft and demonology, non-Christian belief systems), sexuality (prostitution, sodomy, androgyny, transgendering or cross-dressing), and bodily integrity (plague, syphilis, leprosy, cannibalism, theriomorphism) as primary modes of the demonic or monstrous at work in medieval culture. In the process, students will gain both an appreciation of the difficulty of assessing a remote historical period and locate points of comparison with our own cultural uses of the deviant, dissident or marginal.

James Whitta earned his Ph.D. in comparative literature from Brown University, specializing in Medieval Latin literature. He has taught at UC Berkeley for the past three years as a visiting assistant professor of Classics and Comparative Literature.

#### Comparative Literature 40 Sex and Resistance: Women Reclaiming the Body in World Literature (4 units, LG) Irene Siegel TuTh 9:30-11:00, 182 Dwinelle Hall, CCN: 17281

Women's bodies have long served as sites of social regulation and conflict, often rooted in anxiety over women's sexual expression. Looking at a variety of written and filmic texts from the Arab world, Africa, the Caribbean and the United States, this course will examine women's strategies for reclaiming their bodies from patriarchal systems of power, resituating the body as a site of resistance. First we will build a theoretical framework for understanding the construction of sexuality and gender as historically and geographically specific phenomena. We will consider the mutual relationship of these concepts to gendered and sexualized definitions of national and religious identity, while looking at gender as a rhetorical and physical weapon of national resistance movements. We will also investigate women's resistance to and redefinition of traditional forms of bodily labour including sexwork, childcare and other forms of caregiving labor. This will further involve a consideration of the ways that women's creative negotiation of their sexuality has served to redefine resistance itself. Our discussions will continually lead us to consider third- and first-world challenges to dominant western feminist notions of women's sexuality and the body, considering for example the limits of notions of agency and liberation, false consciousness, and first-world readings of veiling and female genital surgeries, all of which contribute to conceptions of the female body and its proper regulation.

Irene Siegel is a doctoral student in Comparative Literature, specializing in Arabic and Francophone literature. She has taught

several courses in Comparative Literature and Women's Studies. Her theoretical interests revolve around issues of gender, sexuality, migration, and religious, national and transnational identities.

Comparative Literature 41C
The Experimental Novel (4 units, LG)
Louise Hornby
TuTh 11:00-12:30, 205 Dwinelle Hall, CCN: 17284

This course will explore novelistic works that self-consciously lay claim to some sort of experimental or avant-garde status. The experimental novel might be thought of as a slush-heap of remainders from previous novelistic efforts, composed of scraps and fragments gleaned from other media, and resulting in something new, different, and often difficult. We will begin by considering the nineteenth-century realist novel as a precursor to the experiments of the twentieth century. We will then turn to various modernist and post-modernist texts that question a received notion of realism, and that offer new and challenging forms of representation. Writers we may encounter include Gustave Flaubert, Emil Zola, James Joyce, Virginia Woolf, Toni Morrison, Alain Robbe-Grillet and W.G. Sebald. The fiction will be supplemented by critical accounts of the genre that pay attention to the novel's troubled and productive intersection with modernism and postmodernism and that offer aesthetic, ethical and political interpretations of experimentation and the avant-garde.

Louise Hornby is a doctoral candidate in the Department of Comparative Literature. She is working on a dissertation about the relationship between literary modernism and photography. Her research interests include visual studies, literature and philosophy, modernism and theories of the novel.

Comparative Literature 41F Introduction to Theory: Marxism and Literature (4 units, LG) Irene Perciali

TuTh 12:30-2:00, 109 Dwinelle Hall, CCN: 17287

This class serves as a survey of foundational texts and debates in Marxist theory, and a first encounter with some of the most influential and exciting ideas in intellectual history. We will embark on a close theoretical engagement with Marxism as an analytic method and a way of reading literature. Marxism is more than a theory of history or economics; it is a method of understanding culture and representation. To get at key cognitive concepts like dialectics, base and superstructure, ideology, reification, and fetishism, we will work intimately and critically with the method and form of the theoretical texts we read. The course will draw upon two novels, Flaubert's *The Sentimental Education* and Austen's *Emma*, and two films, *My Beautiful Laundrette* and *Gosford Park*. Throughout the semester, they will serve as our workshop in gaining a more intimate and practical facility with Marxist thought, and as reminders of ways it can always be refined.

Irene Perciali has taught numerous courses in comparative literature and theory, including several freshman and sophomore seminars. She is a Ph.D. candidate completing a dissertation on literature and economics, theories of the novel, and French and American literature.

Computer Science 39J
The Art and Science of Photography:
Drawing with Light (2 units, P/NP)
Professor Brian Barsky
Thursday 5:00-7:00, Foothill Classroom A,
CCN: 26251

This seminar explores the art and science of photography. Photographs are created by the control and manipulation of light. We will discuss quality of light for the rendering of tone, texture, shade, shadow, and reflection. The seminar examines the photographic process from light entering the lens through the creation and manipulation of the final

image. Topics include composition and patterns, mathematics of perspective projection, refraction, blur, optics of lenses, exposure control, color science, film structure and response, resolution, digital image processing, human visual system, spatial and color perception, and chemical versus electronic processing. Students must have some experience using a camera that allows the user to manually control exposure, and must have access to such a camera that they can use to do the course assignments. For more information regarding this seminar, please visit the course website at http://inst.EECS.Berkeley.EDU/~cs39j/.

This seminar is part of the new Freshman Seminar Program Dinner Series and Professor Barsky looks forward to dining with his students in the Foothill Dining Commons from 6:00 to 7:00 p.m. each week to continue the discussion in a more informal setting.

Brian Barsky received his Ph.D. from the University of Utah in Computer Science and joined the UC Berkeley faculty in1981. His research interests are CAD/CAM, computer-aided geometric design and modeling, computer graphics, geometric modeling, visualization in scientific computing, and computer-aided cornea modeling and visualization.

Computer Science 39K Information Technology Goes to War (2 units, P/NP) Professors David A. Forsyth and Randy H. Katz Wednesday 8:30-10:30, 405 Soda Hall, CCN: 26254

Necessity drives invention. In this seminar, we will examine the historical development of information technology, broadly defined as computing, communications, and signal processing, in the twentieth century within the context of modern warfare and national defense. Topics may include cryptography/cryptanalysis and the development of the computer; command and control systems and the development of the Internet; the war of attrition and the development of the mathematics of operations research; military communications and the development of the cellular telephone system; precision munitions and the development of the Global Positioning System; counter-terrorism and the development of mass information monitoring. We will endeavor to explain these developments in technical terms at a tutorial level. Our main focus is to engage the students in the historical sweep of technical development and innovation as driven by national military needs, and determine whether this represents a continuing framework for the twenty-first century.

David Forsyth is a Professor in the Computer Science Division specializing in computer vision and computer graphics. He has written the standard textbook on computer vision.

Professor Randy H. Katz has been on the Berkeley faculty since 1983. His honors include the campus' Distinguished Teaching Award, memberships in the National Academy of Engineering and the American Academy of Arts and Sciences, Fellow status in his professional societies, and national awards for his undergraduate textbook authorship and undergraduate teaching.

#### Earth and Planetary Science 39A Geological Influences in California Society Today (2 units, LG) Professor Mark Richards MW 5:00-6:00, 102 Moffitt Library, CCN: 19054

In addition to five or six one-hour class meetings, this course includes one four-day field trip that will examine natural features of California that are of scientific and societal importance, such as volcanoes, mountain ranges, earthquake faults, rivers, coastlines, landslides, strata recording earth history, mines, water and energy sources. Field trips go to different parts of California in spring and in fall. Students must bring a sleeping bag and tent, and pay a transportation and a commissary fee. Attendance at each lecture and one field trip is mandatory. Class will initially meet together, but after a few lectures, students will be assigned to a field trip of thirty students with one instructor per group. This course is restricted to freshmen only. It was formerly listed as Geology 39A.

Mark Richards is a Professor in the Department of Earth and Planetary Science, and currently Dean of Physical Sciences. His research is focused on understanding the dynamics of planetary interiors, especially Earth, Venus, Mars, and the Moon. His research group carries out large-scale computational simulations, performs laboratory fluid dynamics experiments, and synthesizes a wide

variety of information on interior dynamics, including the gravity field, seismology, geochemistry, planetary imaging, and field investigations. Professor Richards also enjoys exploring Earth's surface by climbing, skiing, and white-water rafting whenever possible.

Engineering 39B Introduction to Computational Engineering Science (1.5 units, P/NP) Professor John Verboncoeur Tuesday 3:30-5:00, 521 Cory Hall, CCN: 27939

This seminar introduces the program in Computational Engineering Science, a multidisciplinary field linking together elements of biology, chemistry, applied mathematics, physics, and all areas of engineering. The course includes a series of lectures and guest speakers with topics ranging from multidisciplinary real-world projects to introductions to modeling and simulation. Small projects illustrate the progression from problem definition to modeling to simulation to interpretation and comparison with experiment and observation. There are no prerequisites. Priority is given to Engineering Science students.

John Verboncoeur is an Associate Professor-in-Residence in the Department of Nuclear Engineering. His research interest is in computational physics.

German 39H
The World of Yesterday: Vienna at the Turn of the
Century (3 units, LG)
Professor Elaine C. Tennant
TuTh 9:30-11:00, 125 Dwinelle Hall, CCN: 37478

For a few brief decades at the end of the nineteenth century, Vienna witnessed an extraordinary and unprecedented flowering of the arts, politics, philosophy, and industry. This cultural surge made the capital of Austria-Hungary—an empire that extended then from Russia to Switzerland and from Saxony to Rumania—the "city of dreams" and of not a few pightnesse. Vienna in this period was a city of great few nightmares. Vienna in this period was a city of great variety, contrasts, and contradictions-ethnic, social, political, and economic. It was at once splendid and squalid, progressive and decadent. Like the Roman god Janus, finde-siècle Viennese society looked backward and forward at the same time. In this seminar we will concentrate primarily on literary and journalistic writers of the period, but will also sample the work of some of the great painters, decorative artists, and musicians who contributed to the unique atmosphere of Vienna before World War I. The syllabus will include works by Sigmund Freud, Arthur Schnitzler, Hugo von Hofmannsthal, and Theodor Herzl, a well as films by director Max Ophüls, and, depending on student interest, an opera by Richard Strauss. Students should have sophomore standing and an interest in some aspect of the topic of the course. Previous knowledge of German is not required. Students with a background in German, however, are welcome (indeed encouraged) to do some of the assigned readings in the original language. Regular class attendance and participation are mandatory. Students will write brief sketches related to individual works on the syllabus and a longer paper as part of an individual research project that they devise in consultation with the instructor.

Elaine Tennant took her Ph.D. in Germanic Languages and Literatures at Harvard. Her main areas of research are the Habsburg court society in the 15th and 16th centuries, information management in the first century of printing, the development of the German language at the end of the Middle Ages, and the Middle High German narrative tradition. She conducts most of her primary research in Austria. Her publications include a monograph on the emergence of the German common language, a study of vocalism in sixteenth-century German primers, and essays on such topics as Gottfried's *Tristan*, word and image in early modern Germany, gender dynamics in the *Nibelungenlied*, New Historicism, intellectual property, and European responses to the discovery of the Americas.

History 39D Two Empires: China and Rome (4 units, LG) Professor David G. Johnson Wednesday 2:00-4:00, 3104 Dwinelle Hall,

The goal of this seminar is to increase our understanding of classical Chinese civilization by systematically comparing the early Chinese empire—the great Han and T'ang dynasties—with the Roman Republic and Empire. This approach is expected to throw new light on the civilization of Rome as well, and hence on our understanding of one of the most important formative influences of European culture. We will focus on topics such as law (and to a lesser extent the institutions of central government); rhetoric and the public life of the ruling elite; engineering and public works generally; the writing of history; poetry; and philosophy. The first several weeks will be devoted to general background reading. Most of the following weeks will focus on specific Chinese and Latin texts in translation. No previous acquaintance with Chinese or Roman history is necessary.

David Johnson is Professor of Chinese History and has been at UC Berkeley since 1984. Before that he taught in the Department of East Asian Languages and Cultures at Columbia University for nearly ten years, where he frequently taught Columbia College's core curriculum course on Chinese and Japanese great books. He has published on medieval Chinese history and literature, traditional Chinese popular culture, and early Chinese historical writing, among other subjects. He has twice co-directed NEH Summer Seminars for College Teachers on "Law, State, and Individual in Ancient Greece, Rome, and China," most recently in July 2003.

History 39W Ethno-Racial Mixture and Identity in Modern America (4 units, LG) Professor David Hollinger Wednesday 10:00-12:00, 14 Haviland Hall, CCN: 39127

How much do race and ethnicity have to do with an individual's identity? Who decides, and on what basis? What do race and ethnicity mean, and what justifies the specific racial and ethnic categories in use? These questions have divided Americans during much of the last century. This course explores the history and contemporary discussion of these issues, with attention to the one-drop rule, the concept of the melting pot, data on intermarriage and mixture of descent, the controversy over census classifications, the meaning of whiteness, the uncertainty about what is meant by diversity, and the utility of such terms as cosmopolitanism, pluralism, nationalism, and identity. The course will begin with a book on these topics written by the instructor, *Postethnic America: Beyond Multiculturalism*, and will proceed to a wide range of readings by historians, sociologists, philosophers, novelists, and autobiographers.

David A. Hollinger is Preston Hotchkis Professor of American History. His most recent book is *Science, Jews, and Secular Culture*. Since 1992 he has taught at UC Berkeley, where he had once been a student. He describes himself as "an ethnic Californian."

Industrial Engineering 39B Enterprise Engineering (2 units, LG) Professor J. George Shanthikumar Thursday 4:00-6:00, 385 LeConte Hall, CCN: 41003

Industrial Engineering and Operations Research has grown well beyond its roots in manufacturing and branched into virtually all areas of human enterprise. Strategic breakthroughs have come from applying the risk analysis and resource allocation tools of IEOR to modern industries that include sports, finance, energy, service, health care, agriculture, communications, and law enforcement. IEOR operates on the interface between information and decisions and is widely considered to be ideal technical training for engineers who want future careers in designing and managing the complex, information-driven enterprises of the twenty-first century. Students will be given the opportunity to apply some IEOR techniques to decisions that directly affect their future. Students who are not declared IEOR majors but who are considering it as their possible field of expertise are encouraged to take this seminar.

George Shanthikumar is a Professor of Industrial Engineering and Operations Research at UC Berkeley. His research interests are in integrated inter-disciplinary decision making, production systems modeling and analysis, queueing theory, reliability, scheduling, stochastic processes, simulation and supply chain management. He has written or written jointly over 250 technical papers on these topics. Professor Shanthikumar coauthored Stochastic Models of Manufacturing Systems with John A. Buzacott and Stochastic Orders and Their Applications with Moshe Shaked. He has extensively consulted for various companies like IBM, NTT (Japan), Bellcore, Safeway, Intel, AMD, Toshiba, KLA-Tencor and UMC.

Nuclear Engineering 39A Issues in Nuclear Science and Engineering (2 units, LG) Professor William E. Kastenberg MW 11:00-12:00, 9 Lewis Hall, CCN: 64006

This seminar is an introduction to technical, social, institutional, and ethical issues in nuclear engineering: nuclear reactions and radiation, radiation protection, nuclear energy production and utilization, the nuclear fuel cycle, reactor safety and risk, controlled fusion, nuclear waste, medical and other applications of radiation, nuclear nonproliferation and arms control, and engineering ethics.

William E. Kastenberg is currently the Daniel M. Tellep Distinguished Professor of Engineering. He has taught courses in risk assessment, risk management, nuclear reactor analysis, nuclear reactor safety, toxic waste control, energy and the environment, and applied mathematics. More recently, he has focused on ethical issues concerning the development of new technologies, multi-stakeholder decision-making, and the quantification of uncertainty. Professor Kastenberg has won a distinguished teaching award from the American Society for Engineering Education.

Optometry 39B
The Developing World: Profound Challenges,
Needs, and Opportunities—An Example Applied to

## Eye Care in India (2 units, P/NP) Professor Jay M. Enoch TuTh 2:30-4:00, 394 Minor Hall, CCN: 65506

The developing world and its profound problems will remain with us throughout our lifetime. Continued population growth, rapid aging of these populations and provision of care for the aged, questionable adequacy of harvests, greatly unmet health needs (as one example, the HIV-AIDS epidemic), inadequate resources, often inadequate schooling, caste systems, religion and the family as foci of society, the roles and needs of men and women, and many other problems all and needs of men and women, and many other problems all contribute to the complex of issues that need to be faced in these environments. While these problems are enormous, individuals (singly or working together) can make a difference. There are opportunities, and these people are both cooperative and willing to share in their development. One must limit oneself to a defined problem set. In this symposium, we will explore this complex of issues, and the teacher will define those things he was/is able to achieve (and problems and difficulties encountered) in the field of eye and vision care during more than a decade of active participation in India. With India's population passing the one billion mark, the importance of addressing the very great needs of India and other developing countries is emphasized. Individuals will be encouraged to participate actively in discussions, and to examine situations in other countries to better understand both existing problems and opportunities. Students will be asked to prepare oral presentations and written materials on related issues of personal interest. This seminar will meet for five weeks, beginning February 10, 2004. This course is also listed as South and Southeast Asian Studies 39C (CCN:

Dean Emeritus and Professor of the Graduate School Jay M. Enoch maintained a research laboratory in Madurai in Tamil Nadu State for many years. He has helped start a college in Madras (Chennai) in Tamil Nadu, is currently involved in developing graduate programs at the latter institution to help train additional teachers/researchers, and is organizing a new college in the Punjab. He serves on a World Health Organization Committee that addresses refractive and low vision needs of the Developing World.

Psychology 39H Hypnosis as a Problem for Psychology (2 units, LG) Professor John F. Kihlstrom Monday 1:00-3:00, 3140 Tolman Hall, CCN: 74790

The phenomenon of hypnosis will be used as a vehicle for Ihe phenomenon of hypnosis will be used as a vehicle for exploring how psychologists engage in both basic and applied research on phenomena of interest. Topics will include the history of hypnosis; hypnotic effects on perception and memory; individual differences in hypnotizability; correlates of hypnotizability; social influence in hypnosis; hypnosis and pain; psychosomatic effects of hypnosis; hypnosis in psychotherapy; hypnosis in the courtroom; and hypnosis and the brain.

John F. Kihlstrom is Professor in the Department of Psychology and member of the Institute for Cognitive and Brain Sciences and the Institute for Personality and Social Research. He has been doing hypnosis research since he was a college undergraduate, especially with respect to the effects of hypnosis on memory.

**Public Health 39E** The Medical Detective (P/NP) Professor Arthur Reingold Wednesday 11:00-12:00, Location TBA, CCN: 75908

Have you read newspaper stories about SARS or the chicken flu in Hong Kong or Ebola virus in Africa or the fast food restaurant hamburgers that gave hundreds of people E. coli 0157 food poisoning in the Pacific Northwest? Have you wondered who investigated these public health problems and how they did it? In this course, you will learn who these medical detectives are and the ine and outs of how these medical detectives are and the ins and outs of how they solve these real-life mysteries. Enrollment is limited to twenty students. For the location of this seminar, please visit the Freshman Seminar Program website at http://fsp.berkeley.edu.

Professor Arthur Reingold is a licensed physician who has devoted the past twenty years to studying infectious diseases and how to prevent them. He worked at the Federal Centers for Disease Control

and Prevention in Atlanta for eight years before joining the faculty at UC Berkeley and UCSF in 1987. He has been involved in investigations of Legionnaires' Disease, toxic shock syndrome, epidemic meningitis in Africa and Nepal, and numerous other infectious diseases in the United States and in various countries in Latin America, Africa, and Asia.

Slavic Languages and Literatures 39E Science Fiction: Problems in Space-Time (3 units, LG) Professor Anne Nesbet TuTh 9:30-11:00, 2062 Valley Life Sciences Building, CCN: 79842

This lower-division seminar examines some of the many ways problems of space and time have captured the imaginations of writers and filmmakers over the past hundred years. There is a long and honorable tradition of using tales of travel in space and time as a cover for the writer's criticisms (sometimes veiled, sometimes quite direct) of his/her local social environment. In the first half of the course, we will pay particular attention to the way the revolutionary aspirations of Soviet (and pre-Soviet) Russia emerged in the form of science fiction. During the seminar's second half, we will move beyond the geographical confines of Russia to sample a variety of twentieth-century meditations on the joys and perils of time travel. This course can be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Anne Nesbet is an Associate Professor in the Department of Slavic Languages and Literatures and in the Film Program. Her book on the Soviet film director Sergei Eisenstein is called Savage Junctures: Sergei Eisenstein and the Shape of Thinking.

## Slavic Languages and Literatures 46 Twentieth-Century Russian Literature (3 units, LG) Professor Olga Matich TuTh 12:30-2:00, 121 Wheeler Hall, CCN: 79845

The beginning of the twentieth century was marked by artistic and cultural experiment in all of Europe. In Russia it coincided with major social and political changes brought about by the Revolution in 1917 and its aftermath. Literature played a central role in the process of transfiguring Russian society, providing models for the utopian future. In the first half of the course, we will examine the artistic and social experimentation inspired by Russian utopian ideology and its intent to construct a "new man" and "new woman." We will also examine the later abandonment of the utopian dream and read key texts criticizing Soviet totalitarian society. The readings will include selections from the experimental teens, revolutionary twenties, Stalinist thirties, dissident sixties and seventies, and post-Soviet eighties. This course can be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Olga Matich is a Professor of Russian literature and culture in the Department of Slavic Languages and Literatures. Her teaching and research cover both the nineteenth and twentieth centuries. In 1996 she published a book on Soviet culture that she co-edited, called Laboratory of Dreams: The Russian Avant-Garde and Culture Experiment. She has just completed a book entitled Creating Love's Body: Experimental Life in the Russian Fin De Siecle.

South and Southeast Asian Studies 39C The Developing World: Profound Challenges, Needs, and Opportunities-An Example Applied to Eye Care in India (2 units, P/NP) Professor Jay M. Enoch TuTh 2:30-4:00, 394 Minor Hall, CCN: 83115

This course is also listed as Optometry 39B (CCN: 65506). For the course description, please see the listing under Optometry 39B.

South and Southeast Asian Studies 39G "Think Gender" in Indian Short Stories (2 units, LG) Kausalya Hárt Friday 8:00-10:00, 156 Dwinelle Hall, CCN: 83118

In this seminar, students will read fifteen short stories from various languages of India translated into English. The stories will describe the relationships between men and women and how the society looks at the roles of men and women in Indian culture. The students will be expected to read the stories and to discuss and critique them in class. They will also be expected to write two five-page research papers. This course can be used to satisfy the Arts and Literature or Social and Behavioral Sciences breadth requirement in Letters and Science.

Kausalya Hart (M.A., Annamalai University, 1962) is the author of *Tamil for Beginners, Tamil Madu*, and *Tamil Tiraippadam* (advanced Tamil textbooks). She has prepared numerous Tamil language teaching aids (including a collection of Tamil movie videos), and a dictionary for modern Tamil. Her current research involves the preparation of a dictionary of Tamil inscriptions. Her interests include Tamil literature, grammar, and inscriptions.

Undergraduate Business Administration 39AC Philanthropy: A Cross-Cultural Perspective (3 units, LG) Professor Frances Van Loo TuTh 2:00-3:30, C250 Cheit Hall, CCN: 08463

This class will compare and contrast the variety of gift-giving and sharing traditions that make up American philanthropy. Both the cultural antecedents and their expression in this country will be explored from five ethnic and racial groups: Native American, European American, African American, Hispanic American, and Asian American. The goal is to gain a greater understanding of the many dimensions of philanthropy as it is practiced in the United States today. This course fulfills the American Cultures requirement.

Frances Van Loo is an Associate Professor in the Haas School of Business where she specializes in the management of nonprofit organizations and philanthropy. She is currently working on a book that incorporates the research from students in this class on their racial/ethnic philanthropic heritage.

Want more opportunities to discuss issues relevant to **women?** You may want to take Public Health 24, Section 2: Women, Weight, and Food or Comparative Literature 40: Sex and Resistance: Women Reclaiming the Body.

## Other Small Courses and Courses of Special Interest to Freshmen

Not all of the following classes are small, but each is designated to add something special to the undergraduate experience.

Bioengineering 24, Section 1 Aspects of Bioengineering (1 unit, P/NP) Professor Dorian Liepmann Wednesday 4:00-5:00, Sibley Auditorium, Bechtel Engineering Center, CCN: 07303

This introductory seminar is designed to give freshmen and sophomores a glimpse of a broad selection of bioengineering research that is currently underway at Berkeley and UCSF. The goal is to help students gain a feeling for the breadth of interesting problems in bioengineering and also the variety of ways that engineering principles can be applied to biological and medical problems. A series of one-hour seminars will be presented by researchers, professors, and doctors on their particular research areas.

Bioengineering 24, Section 2 Careers in Bioengineering (1 unit, P/NP) Professor Dorian Liepmann Monday 4:00-5:00, 2 Le Conte Hall, CCN: 07306

This introductory seminar is designed to give freshmen and sophomores an opportunity to explore specialties related to engineering in the pharmaceutical/biotech field. A series of one-hour seminars will be presented by industry professionals, professors and researchers. Topics may include biotechnology and pharmaceutical manufacturing; process and controls engineering; drug inspection process; research and development; compliance and validation; construction process for a GMP facility; project management; and engineered solution to environmental challenges. This course is of interest to students in all areas of engineering and biology, including IEOR, Manufacturing, Chemical Engineering and Bioengineering.

Civil Engineering 92 Introduction to Civil and Environmental Engineering (1 unit, P/NP) Professor Robert A. Harley Wednesday 12:00-1:00, Location TBA, CCN: 13930

This seminar will consider several challenges facing the world: increasing population; shortages of natural resources; inadequate capacity for the flow of people, goods and information; natural disasters from droughts, floods and severe weather to earthquakes; and shifting patterns of urbanization and land use. Solutions to these challenges require advances in physical, biological, health and social sciences, and policy analysis. However, it is civil and environmental engineers who will apply these scientific developments to solve current and future problems. This seminar will explore the breadth of opportunities within this field using an analysis of historical events and speculation on the future. The course will use examples drawn exclusively from California, the Bay Area and at times the UC Berkeley campus. It is open to all students and does not assume prior knowledge of engineering. For the location of this course, please visit the Freshman Seminar Program website at http://fsp.berkeley.edu.

Comparative Literature 50 Creative Writing in Comparative Literature: Script (3 units, LG) David Larsen TuTh 12:30-2:00, 289 Dwinelle Hall, CCN: 17290

This will be a class on several of the activities named "writing." The class will be part creative writing workshop and part forum for critical readings of primary and secondary texts. We will refuse to take for granted the common assumption about writing: namely, that artistic writing is undifferentiated from word-processed type, and that above all the other possible styles and systems of writing, modern typography is best suited for the poet or author's transmission of verbal art to a reader. In so doing, we will try

to figure out just what constitutes this "writing" named by "creative writing," and what separates it from the many genres and forms of "non-creative" writing. Unavoidably, we will be forced to consider whether a pure "verbal" art can ever be unhitched from graphic representation, in theory or in practice. No medium or genre of writing will be barred to the student for the "creative writing" component of the class, not even word-processed type. A student who wishes to present work formatted exclusively in type is welcome to do so, but she or he must be prepared to defend that choice of medium as will students who work in any of the various forms of print-making, handwriting, audio/video, etc.

David Larsen is a Ph.D. candidate in Comparative Literature writing on archaic Greek and Arabic poetry. His art, writing, and art writing have appeared in several literary journals and numerous self-published booklets.

Environmental Science, Policy and Management 4 Environmental Chemistry (2 or 3 units, LG) Professor Oenes C. Huisman MW 10:00-11:00 plus discussion section if taking course for 3 units, 128 Giannini Hall, CCN: 30403

This course focuses on the physical and chemical properties of the environment, and how they relate to pollution and environmental degradation. Students will receive two units of credit for ESPM 4 after taking Chemistry 1A or the equivalent. There are two hours of lecture per week. Students enrolled in the course for three units must also attend a discussion section for two hours per week. Students with weak backgrounds in chemistry should enroll for 3 units.

Environmental Science, Policy and Management 10 Environmental Issues (4 units, LG) Professor Stephen C. Welter TuTh 9:30-11:00 plus discussion sections, 101 Moffitt Library, CCN: 30409

This seminar will focus on the relationship between human society and the natural environment, and case studies of ecosystem maintenance and disruption. Issues of economic development, population, energy, resources, technology, and alternative systems will also be discussed.

Environmental Science, Policy, and Management 11 Forest and Wildland Resource Conservation (4 units, LG) Professor Sally Fairfax MWF 10:00-11:00 plus discussion sections, 159 Mulford Hall, CCN: 30433

This course will cover the ecological basis of forestry, and the effects of societal influence and legislation and past exploitation on forest structure and health. Current problems and their impacts on forests and other wildland ecosystems and the wood, water, and wildlife resources they contain will be examined as well.

Environmental Science, Policy and Management 42 Natural History of Insects (2 units, LG) Professors Rosemary Gillespie and George Roderick MW 10:00-11:00, 102 Moffitt Library, CCN: 30454

This course is an outline of the main facts and principles of biology as illustrated by insects, with special emphasis on their relations to plants and animals, including humans.

German R5B, Section 1, 2, 3, 4 and 5
Reading and Composition: German (4 units, LG)
Section 1: TuTh 8:00-9:30, 79 Dwinelle Hall,
CCN: 37451
Section 2: TuTh 9:30-11:00, 104 Barrows Hall,
CCN: 37454
Section 3: TuTh 12:30-2:00, 262 Dwinelle Hall,
CCN: 37457
Section 4: MWF 9:00-10:00, 175 Dwinelle Hall,
CCN: 37460
Section 5: TuTh 3:30-5:00, 2030 Valley Life Sciences
Building, CCN: 37463

German R5B satisfies the second half of the Reading and Composition requirement. The prerequisite for this course is any A-level Reading and Composition course. All readings and discussions will be in English. For information regarding the specific German R5B section topics, please check with the German Department office located in 5319 Dwinelle Hall (telephone 510-642-7445) or visit the German Department course web page at http://german.berkeley.edu/courses/index.html.

History R1
The Practice of History (4 units, LG)
Professors Mary Elizabeth Berry and Kerwin Klein
TuTh 12:30-2:00 plus discussion section, 2060 Valley
Life Sciences Building, CCN: 38803

For a description of this course, please visit the Department of History's course web page at http://history.berkeley.edu/academ/courses.html or consult the Online Schedule of Classes at http://schedule.berkeley.edu/.

History of Art 11 Introduction to Western Art: Renaissance to the Present (4 units, LG) Professor Darcy Grigsby TuTh 2:00-3:30 plus discussion sections, 2050 Valley Life Sciences Building, CCN: 05521

This course is an introduction to the historical circumstances and visual character of Western art from the Renaissance to the present. This is not a chronological survey, but an exploration of topics and themes central to this period. For example: what tasks did painting and sculpture perform in the past? For whom, and at whose expense? How do the rise of landscape painting, the cult of the artist, and the new emphasis on the nude relate to the emergence of modern society? Do stylistic labels like Renaissance, Baroque, Impressionism, and Modernism help us answer such questions? For information regarding the discussion sections, please consult the *Schedule of Classes*.

History of Art 51 Introduction to Medieval Art (4 units, LG) Professor Jacqueline Jung

## MWF 3:00-4:00 plus discussion sections, 101 Moffitt Library, CCN: 05560

This lecture course introduces the student to the study of medieval art and architecture, beginning with the catacomb paintings of ancient Rome, and ending with late Gothic architecture in the Americas. The emergence of new artistic media, types of art, and strategies of making and viewing will be discussed against the often wrenching historical changes at the time. Emphasis will be placed on the methods of interpreting the works, especially in relation to new social practices and cultural values. While providing a comprehensive survey of the visual arts from the first century A.D. to the eve of the Protestant Reformation, this course particularly highlights the development of western medieval art between ca. 800 and 1500, focusing especially on architecture, architectural sculpture, stained glass, wall painting and mosaics.

Optometry C10
The Eye and Vision in a Changing Environment (2 units, LG)
Dean Anthony J. Adams
Thursday 4:00-6:00, 160 Kroeber Hall, CCN: 65503

This course introduces common sight-reducing visual disorders that have major public health implications, for example myopia, cataracts, diabetic hypertensive eye disorders, developmental disorders, and environmentally induced diseases and disorders. Major approaches to the prevention, diagnosis and treatment of common disorders will be addressed in terms of the biological and optical sciences underlying the treatment or prevention. Impact of eye care on society and health, and care delivery will be reviewed. This course is also listed as UGIS C10 (CCN: 89003).

Anthony J. Adams has been a Professor of Optometry and Vision Science (Physiological Optics) since 1968 and Dean from 1992 to 2001 at the University of California, Berkeley School of Optometry (UCBSO). Concurrent with his appointment as Dean, he has been and remains a member of the University of California system-wide Health Sciences Committee.

Physics 10
Physics for Future Presidents (3 units, LG)
Professor Richard Muller
TuTh 11:00-12:30 plus discussion sections, 4 LeConte
Hall, CCN: 69874

Interested in taking a physics course that gets quickly to the most interesting and important material, while deemphasizing the math? Professor Richard Muller invites you to take Physics 10. In addition to future presidents, future CEOs, architects, judges, journalists, talk-show hosts, entrepreneurs, venture capitalists, writers, congressmen, musicians, football coaches, and everybody else should find this course interesting. For more information about this seminar, please visit the Physics 10 website at http://muller.lbl.gov/teaching/Physics10/PffP.html.

Richard Muller is a Professor in the Department of Physics. For more information, please visit Professor Muller's web page at http://muller.lbl.gov/.

Plant and Microbial Biology 40 The Secret Life of Plants (3 units, LG) Professor Patricia Zambryski TuTh 1:00-2:00 plus discussion sections, 109 Morgan Hall, CCN: 70809

This course addresses contemporary topics in plant biology. It examines plants as energy and medicinal sources, how plants grow and reproduce, how plants cope with the environment and disease. It includes an introduction to genetic engineering and modern biotechnology, to enable students to evaluate these hot topics in the popular press. Knowledge of the physical sciences is neither required nor assumed.

Patricia Zambryski is a Professor in the Department of Plant and Microbial Biology, and has taught at UC Berkeley for the last fifteen years. Her research interests include *Agrobacterium*-plant cell interaction, *Arabidopsis* flower development and *Plasmodesmata* structure and function.

Plant and Microbial Biology C41X Heredity and Society (4 units, LG)

#### Professor Michael Freeling MW 11:00-12:00 plus discussion sections, 22 Warren Hall, CCN: 70818

Basic genetic principles and mechanisms, evolution, philosophical implications and relation of genetics to global problems of human and environmental health will be discussed in this course, which meets for two hours of lecture and two hours of discussion per week.

Michael Freeling is a Professor in the Department of Plant and Microbial Biology. Professor Freeling earned his Ph.D. in Genetics from Indiana University in 1973. He is a Professor of Genetics working with plants, and has interests in genetics and its applications to the human situation.

#### Political Science 1 Introduction to American Politics (4 units, LG) Professor Taeku Lee TuTh 9:30-11:00 plus discussion sections, 155 Dwinelle Hall, CCN: 72003

Politics is the art and noise of collective governance under conditions of scarce resources, conflicting interests, diverse beliefs, uncertain outcomes, and unequal power. This course provides students with a broad overview of the institutions, processes, and content that constitute politics in the United States. Students will learn the basic architecture of American government: the Constitution, federalism, and the core institutions of Congress, the Presidency, the Judiciary, and the bureaucracy. Substantively, students will also learn the inputs into democratic decision-public opinion, voting, political participation, mass mobilization, and the intermediating influences of political parties, interest groups, and the mass media-and the outputs of government-civil rights and liberties and economic, social, and foreign policies. In thinking about these topics, students are expected to grapple with fundamental democratic concepts: freedom, equality, justice, legitimacy, accountability, diversity, citizenship, and community. Reading assignments will be drawn from a textbook as well as from a collection of photocopied materials. Students are required to write several short essays and to take a midterm and a final exam. Political Science 1 is a large lecture course of 450 students with required discussion sections of 25 students each. It is required for the major and must be completed before declaring the major. (Students who have scored a 4 or 5 on the American Government Advanced Placement exam may substitute an upper-division American Politics course for PS 1 before or after declaring the major.) This course satisfies the American Institutions requirement and Social & Behavioral Sciences breadth requirement in Letters and Science.

#### Political Science 2 Introduction to Comparative Politics (4 units, LG) Professor Pradeep Chhibber TuTh 11:00-12:30 plus discussion sections, Wheeler Auditorium, CCN: 72060

This course will introduce students to some key concepts used in contemporary comparative political analysis. It will do so through an examination of the reasons why some modern nation states provide better living conditions for their citizens. Are these differences due to factors such as political institutions, legislative arrangements, parties and party systems, or social forces such as culture and ethnicity? Class lectures will focus on developing an understanding of how political scientists use these terms and whether they provide adequate explanations for why states vary so substantially in their performance. There will be two lectures per week and one required discussion section. Class requirements include an in-class mid-term, a final, and a tenpage paper. A reader of collected articles and excerpts will be made available. Political Science 2 (or an equivalent) is required for the Political Science major and must be completed before declaring the major. This course can be used to satisfy either the Social & Behavioral Sciences or International Studies breadth requirement in the College of Letters & Science.

Theater, Dance and Performance Studies 26 Issues in World Theatre (4 units, LG)

#### Professor Shannon Steen and Katie Gough TuTh 2:00-3:30, 109 Dwinelle Hall, CCN: 88054

In each semester an issue of broad relevance to world theater will be addressed through the study of four to six diverse theatrical traditions/practices, including Western, non-Western, musical, and dance-based forms of theater. Texts may include play scripts, video and/or audio recordings, and historical and critical documents.

Theater, Dance and Performance Studies 40B, Section 1
Beginning Modern Dance Technique (1 unit, LG)
Professor Marni Thomas Wood
MTWTF 9:30-11:00, 2401 Bancroft Way,
CCN: 88057

This course includes basic explorations in movement emphasizing increased flexibility, strength, alignment, coordination, and muscular endurance.

#### Theater, Dance and Performance Studies 60, Section 2 Stagecraft (3 units, LG) Chris Killion MW 12:00-1:00, Zellerbach Playhouse, CCN: 88063

This course focuses on various technical aspects of theatrical production. The course ranges from theatrical conception to actual performance and includes attention to all aspects of theatrical production with special emphasis on stage machinery and rigging, scenery building, scenery painting, and props and upholstery. The course involves a laboratory dimension: students will work on departmental productions in Zellerbach Playhouse, 7 Zellerbach, or Durham Studio Theatre.

Undergraduate and Interdisciplinary Studies C10 The Eye and Vision in a Changing Environment (2 units, LG) Dean Anthony Adams Thursday 4:00-6:00, 160 Kroeber Hall, CCN: 89003

This course is also listed as Optometry C10 (CCN: 65503). For the course description, please see the listing under Optometry C10.

Undergraduate and Interdisciplinary Studies 20AC Alternative Sexual Identities and Communities in Contemporary American Society (4 units, LG) Ute Rupp TuTh 3:30-5:00 plus discussion sections, 2060 Valley Life Sciences Building, CCN: 89006

This course is an introduction to varied dimensions of alternative sexual identities in the contemporary United States, with a focus ranging from individuals to communities. It will use historical, sociological, ethnographic, political-scientific, psychological, psychoanalytical, legal, medical, literary, and filmic materials to chart trends and movements from the turn of the century to the present. This course satisfies the American Cultures requirement and is a core Lesbian Gay Bisexual Transgender (LGBT) minor course.

Undergraduate and Interdisciplinary Studies C145 Interpreting the Queer Past: Methods and Problems in the History of Sexuality (4 units, LG) Gayle Salamon TuTh. 145 Dwinelle Hall. CCN: 89024

This course examines interpretive issues in studying the history of sexuality and the formation of sexual identities and communities. We will use literature to compare gender, feminism, and sexuality, to investigate specific historiographical concerns and raise questions about historical methodology and practice. UGIS C145 is a core Lesbian Gay Bisexual Transgender (LGBT) minor course.



### **Letters and Science College Courses**

Do you want to study fields beyond your intended major, to become more intellectually well rounded?

Are you looking for a course designed for non-majors, since this is not your specialty, but you don't want to be fed a watered-down version of the material?

Do you find that the Letters and Science breadth list is a start, but it doesn't give you much direction?

How can you tell which breadth courses will meet you at your level and then challenge and motivate you to go deeper?

The Letters and Science College Courses have been designed to foster the ideals of a liberal arts education at the highest level of excellence. They are taught by some of the most outstanding teachers on the faculty, for students who are eager to take an intellectual risk. If you are interested in exploring a new area of interest at a deeper level than is required or offered by the usual introductory course, sign up for one of the courses listed below.

Letters and Science 27 Renaissance Literature, Philosophy and Art (3 units, LG) Professors Timothy Hampton and Victoria Kahn MWF 11:00-12:00 plus discussion sections, 101 Morgan Hall, CCN: 51203

This College Course will introduce students to the Renaissance period, which saw an explosion of creativity in the arts, literature and philosophy that had an incomparable impact on the emergence of the modern world. This course will feature works by major literary figures, philosophers and artists of the period, including Michelangelo, Galileo, Machiavelli, Montaigne, Rabelais, Descartes, Rembrandt and Milton. By emphasizing the interdependence of various forms of inquiry and disciplines, the course will provide a perspective on the Renaissance that is unavailable in either traditional national literature, comparative literature, art history or history courses. This course can be used to satisfy a Letters and Science Breadth requirement: Arts and Literature or Philosophy and Values.

Don't miss this wonderful opportunity to take these two new Letters and Science College Courses. Here are just a few responses from students who have enjoyed taking College Courses during past semesters:

"Incredible! Extremely worthwhile! Professors were engaging; content was stimulating. Invaluable!"—Praise for an earlier L&S College Course taught by Professors Conkey and Tringham

"One of the most enjoyable courses I have taken at Berkelev!"

"Better than any! One of my all time favorite classes in four years at Cal!"

" Great! This class is superb!"

Letters and Science 127
Heritage Futures in a Digital Age (4 units, LG)
Professors Meg Conkey and Ruth Tringham
TuTh 3:30-5:00 plus discussion sections,
F295 Haas, CCN: 51245

This course is a cross-disciplinary exploration of cultural heritage on a global and local scale through discussion, debate, in-class activities and team-based research projects that involve communication with heritage centers in different parts of the world. The themes of the course will include the global and local management of heritage sites; the creation of heritage sites; the ethics of archaeologists as stewards of heritage; listening to multiple voices of interest groups; preservation and conservation of heritage; the destruction and looting of heritage; the public presentation of heritage places through digital media, museums and education. The course discusses the research on cultural heritage in public archaeology, anthropology, historical ecology preservation, cultural resource management, landscape studies and many other disciplines. The class will work as six teams, led by the instructors and GSIs, to build a mosaic of six Heritage Futures tied together with a cohesive, data driven website. These six site areas will be chosen from around the world for their cultural and archaeological significance, including a focus on the San Francisco Bay Area to give us an opportunity to engage with real, local heritage issues. Students will be guided to enter into dialogue with students and managers at the heritage sites through instant messaging, email and other digital media. This course can be used to satisfy a Letters and Science Breadth requirement: Social and Behavioral Sciences.