FRESHMAN SEMINARS

- Anthropology 24, Section 1: Ritual, Tourism and Identity in the Modern World (LG)
- Architecture 24, Section 1: Exploring American Cities (P/NP)
- Chemical Engineering 24, Section 1: Introduction to Chemical Engineering: Traditional Careers and New Directions (P/NP)
- Civil and Environmental Engineering 24, Section 3: Skyscrapers and the World Trade Center (P/NP)
- Civil and Environmental Engineering 24, Section 4: California Water: Past, Present, and Future (P/NP)
- Comparative Literature 24, Section 1: Reading and Reciting Great Poems in English (P/NP)
- Economics 90: Economics and Computation (P/NP)
- Education 24, Section 2: Civil Rights Law in Higher Education (LG)
- Electrical Engineering 24, Section 1: Gadgets Electrical Engineers Make (P/NP)
- English 24, Section 1: Growing Up Chicano (P/NP)
- English 24, Section 2: William Blake's *Songs of Innocence and of Experience* (P/NP)
- English 24, Section 3: British and American Poetry of the Nineteenth Century (P/NP)
- English 24, Section 4: Joyce's Dubliners in Joyce's *Dubliners* (P/NP)
- Environmental Science, Policy and Management 24, Section 1: Discussions on Evolutionary Biology (P/NP)
- Environmental Science, Policy and Management 24, Section 2: Issues in Natural Resource Conservation (P/NP)
- Environmental Science, Policy and Management 24, Section 3: Living with Fire (P/NP)
- Environmental Sciences 24, Section 1: Sustainability: The Future is Now (P/NP)
- French 24, Section 1: Language and Technology (P/NP)
- German 24, Section 1: Friedrich Nietzsche's *Beyond Good and Evil* (P/NP)
- History 24, Section 1: The Creation, Operation, and Dismantling of Apartheid in South Africa (P/NP)
- History of Art 24, Section 1: Looking at Berkeley Buildings (P/NP)
- Industrial Engineering 24, Section 1: Overview of IEOR (P/NP)
- Integrative Biology 24, Section 1: Animal Navigation: Which Way Is Home? (LG)
- Integrative Biology 24, Section 2: Geology and Marine Biology of the Central California Coast (LG)
- Integrative Biology 24, Section 3: The Stone Age (LG)
- Integrative Biology 24, Section 4: Dinosaur Biology: An Introduction to Research (LG)
- Journalism 24, Section 1: Storytelling for Television News (P/NP)
- Journalism 24, Section 2: Race and Politics (LG)
- Journalism 24, Section 3: The Disappearance of Information (LG)
- Journalism 24, Section 4: Human Rights in China (P/NP)
- Journalism 24, Section 5: The Presidential Campaign Trail in Print (and Occasional Film) (LG)
- Linguistics 24, Section 1: Language and Politics in Southern Africa (P/NP)
• Mass Communications 24, Section 1: The Disappearance of Information (LG)
• Mathematics 24, Section 1: What is Happening in Math and Science? (P/NP)
• Mechanical Engineering 24, Section 1: Art and Science on Wheels (P/NP)
• Mechanical Engineering 24, Section 2: Computer Graphics Tools (P/NP)
• Molecular and Cell Biology 90B, Section 1: Biology in the Post-Genomic Years: Where is the Program for Life? (P/NP)
• Molecular and Cell Biology 90B, Section 2: Insulin as a Window on Discovery in Biology (P/NP)
• Molecular and Cell Biology 90E, Section 1: Consciousness: One of the Last and Deepest Unsolved Biological Problems (P/NP)
• Natural Resources 24, Section 1: Dean's Night Out: People and the Environment (P/NP)
• Natural Resources 24, Section 2: Global Environment House Freshman Seminar (P/NP)
• Near Eastern Studies 24, Section 1: Exploring the Archaeology of Ancient Egypt in the Hearst Museum (LG)
• Near Eastern Studies 24, Section 2: Excavating Iraq: Archaeology and Uses of the Past (P/NP)
• Nuclear Engineering 24, Section 1: Ethics and the Impact of Technology on Society (P/NP)
• Nutritional Sciences and Toxicology 24, Section 2: Toxics in Daily Life (P/NP)
• Nutritional Sciences and Toxicology 24, Section 3: Nutrition in the News (P/NP)
• Philosophy 24, Section 1: The Odyssey of Homer (P/NP)
• Physics 24, Section 1: Controversial Issues in Physical Science (P/NP)
• Psychology 24, Section 1: Cultural Assumptions of American Thoughts (P/NP)
• Psychology 24, Section 2: Getting to Know the UCB Faculty (P/NP)
• Psychology 24, Section 3: Memory Confusions, Recovered Memories, and False Memories (P/NP)
• Psychology 24, Section 4: The Control of Behavior (P/NP)
• Psychology 45, Section 1: Freshman Seminar (P/NP)
• Scandinavian 24, Section 1: Photography and War (P/NP)
• Social Welfare 24, Section 2: Introduction to Community Organization and the Nonprofit Sector (P/NP)
• Sociology 24, Section 1: Life Course and the Transition to College (P/NP)
• Spanish 24, Section 1: Talking Funny: Language Variation in Spanish and English Literary Texts (LG)
• Spanish 24, Section 2: Spanish Medieval Tales of Magic, Saints, and Miracles (P/NP)
• Theater, Dance and Performance Studies 24, Section 2: Documentary Playmaking: School Integration, Little Rock, 1957-58 (P/NP)
• Vision Science 24, Section 3: The Human Eye (P/NP)
• Vision Science 24, Section 5: Oh Say Can You See (P/NP)
**FRESHMAN SEMINARS**

**Anthropology 24, Section 1**  
**Ritual, Tourism and Identity in the Modern World (LG)**  
**Professor Nelson Graburn**  
**Monday 11:00-12:00, 115 Kroeber Hall, CCN: 02575**

This seminar focuses on anthropological approaches to two main topics, ritual and tourism, and conceives of them as both constituting and expressing sociocultural identity. Rituals are events and processes found in all the world’s societies. They emphasize heightened sensory awareness and special social, temporal and spiritual contexts. Commonly they function to mark the passage of personal and social time and to make explicit social structures and identity. Tourism is a form of secular ritual involving travel, commonly associated with modernity; there is a close relationship between tourism and pilgrimage. The class will focus on the students’ own experiences in rites of passage, family heritage and social rituals, and travel experiences, in relation to ideas discussed in class and in the readings. Students will be expected to attend and participate in the class every week. This seminar is intended for freshmen from as diverse social and academic backgrounds as possible, who have interest in the connections between their studies and the outside world. For some students this course may be a preparation for short- and long-term studies abroad.  

Professor Nelson Graburn was educated in Natural Sciences and Anthropology at Cambridge, McGill and University of Chicago. He has taught at UC Berkeley since 1964. His research and teaching interests include the history of anthropology and ethnographic methods; Japan, Ainu, tourism and cultural conservation; Inuit and Circumpolar Peoples; visual anthropology, art and social change; heritage, museums, material culture, symbols and nationalism.

**Architecture 24, Section 1**  
**Exploring American Cities (P/NP)**  
**Professor Paul Groth**  
**Tuesday 3:30-6:00, 172 Wurster Hall, CCN: 03702**

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. We will travel by foot and BART to explore parts of Berkeley, Oakland, and San Francisco with six field trips, usually with two hours of discussion and lecture on site, and a half hour for travel back to campus. Course requirements include brief readings and participating in on-site discussions (or classroom discussions in the event of heavy rain). This seminar will meet the first eight weeks of the semester, beginning August 31, 2004, and ending October 19, 2004.

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.

**Chemical Engineering 24, Section 1**  
**Introduction to Chemical Engineering: Traditional Careers and New Directions (P/NP)**  
**Professor David Graves**  
**Tuesday 3:00-4:00, 72 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.

Civil and Environmental Engineering 24, Section 3
Skyscrapers and the World Trade Center (P/NP)
Professor Abolhassan Astaneh
Wednesday 11:00-12:00, Location TBA, CCN: 13902
This seminar discusses skyscrapers first: how they are designed and constructed; what motivates us to build them; and who designs and constructs them. Then for the remainder of the semester we will focus on the World Trade Center. Topics will include the initial design and construction of the World Trade Center, the 1993 unsuccessful terrorist attacks on it, and the attacks in 2001 that resulted in the tragic collapse of the towers and the loss of lives of more than 3000 innocent people. Finally, the plans for rebuilding the World Trade Center will be presented. Although the focus of the course is on design and construction aspects of skyscrapers and the World Trade Center, other aspects such as economical, political, social and historical issues will not be excluded from the discussion. The students are expected to participate in classroom discussions and select a topic related to the course title and prepare and submit a three-to-five-page term report on the subject. For the location of this seminar, please revisit this web page in the future.

Professor Astaneh is a member of the faculty in the Department of Civil and Environmental Engineering. His area of specialty is behavior and design of structures to withstand gravity, seismic and blast loads. He has conducted several major research and design projects on long span bridges and tall buildings. He teaches graduate and undergraduate courses in structural engineering. A few days after the September 11th tragedies, armed with a grant from the federal National Science Foundation, he traveled to New York and for several weeks conducted field investigation of the collapsed towers of the World Trade Center. He is currently continuing his studies of the World Trade Center collapse to learn from this tragedy as much as possible. It is hoped that the lessons learned can be applied in the design of other skyscrapers to prevent their catastrophic collapse in the event of future attack and to save lives.

Civil and Environmental Engineering 24, Section 4
California Water: Past, Present, and Future (P/NP)
Professors John A. Dracup and David L. Sedlak
Day, Time and Location TBA, CCN: 13903
This seminar will focus on California's water quantity and quality issues and problems in the past, present, and future. The first part of the course will provide a historical perspective on the development of water systems, including UC Berkeley's water supply from Strawberry Creek as well as the major water systems in California. Next, the current major water controversies that affect the state will be discussed, such as the division of water between agriculture, municipal, and industry; the reuse of treated wastewater; chlorination of drinking water and disinfection byproducts; privatization of water services; water as a regulation on growth; and whether California will eventually run out of water. Throughout the course, there will be a focus on new paradigms for water supply and ecosystem management in an era of environment enhancement and growing population. For the day, time and location of this seminar, please revisit this web page in the future.

Professor Dracup teaches and conducts research in water resources and hydrology. His undergraduate courses include fluid mechanics and the Design of Water and Environmental Systems. He currently teaches a graduate course on Global River Basins in Conflict. His research is in the area of the impact of climate variability and climate change on hydrologic processes.

Professor Sedlak teaches and conducts research in environmental chemistry and ecological engineering. He teaches undergraduate and graduate environmental chemistry classes and a graduate class in watershed management. His research addresses chemical contaminants and their impact on water recycling programs.

Comparative Literature 24, Section 1
Reading and Reciting Great Poems in English (P/NP)
Stephen Tollefson  
**Tuesday 3:00-4:00, 204 Dwinelle Hall, CCN: 17271**

People today do not have enough poetry in their heads, and everyone should be able to recite one or two of their favorite poems. In addition to its purely personal benefits, knowing some poetry by heart has practical applications: in a tough job interview, you can impress the prospective boss by reciting just the right line, say, from Dylan Thomas: “do not go gentle into that good night/rage rage against the dying of the light.” Or at a party some time, you’ll be able to show off with a bit of T.S. Eliot: “in the room the women come and go, talking of Michelangelo.” In this seminar, we will read a number of classic poems as well as a number of other (perhaps lesser, but still memorable) poems, and discuss them. The poems cut across centuries and types. Students will be encouraged to find other poems for the group to read. Participants will be required to memorize and recite 50-75 lines of their choice, and to prepare a short annotated anthology of their favorite poems.

Steve Tollefson, a lecturer in the College Writing Programs, is the author of four books on writing and grammar as well as articles on a variety of subjects and several short stories. He is a recipient of the campus Distinguished Teaching Award.

**Economics 90**  
Economics and Computation (P/NP)  
**Professor Paul A. Ruud**  
**Thursday 4:00-5:00, 35 Evans Hall, CCN: 22389**

Using widely available spreadsheet software, the seminar will explore ways in which computation can overcome analytical difficulties and can aid learning and understanding economic models. Students planning to major in economics, business, or political science are encouraged to enroll.

Paul Ruud is a professor in the Department of Economics. His research focuses on econometrics, the intersection between economics and statistics.

**Education 24, Section 2**  
Civil Rights Law in Higher Education (LG)  
**Sheila O’Rourke**  
**Wednesday 2:00-4:00, 3507A Tolman Hall, CCN: 23532**

This seminar will provide an introduction to civil rights issues in higher education such as affirmative action, race discrimination, sexual harassment, sex discrimination, regulation of hate speech, and civil rights protections for lesbian/gay/bisexual students. Reading materials will include actual court cases involving colleges and universities, as well as articles and commentaries. Students will be expected to complete weekly reading assignments and participate in classroom discussions. **This seminar will meet the first ten weeks of the semester. The instructor will hold office hours from 3:30-4:00 after class.**

Sheila O’Rourke is Executive Director and Special Assistant to the Provost in the Academic Advancement Department of the University of California Office of the President. She was formerly the Assistant Provost for Academic Compliance at the Berkeley campus. She received her J.D. from Boalt Hall and is a member of the California Bar. She previously served as a civil rights attorney for the U.S. Department of Education, Office for Civil Rights, where she was responsible for the enforcement of federal civil rights laws in education. She has taught constitutional law at the University of San Francisco Law School and legal writing at Stanford Law School.

**Electrical Engineering 24, Section 1**  
Gadgets Electrical Engineers Make (P/NP)  
**Professor Jeffrey Bokor**  
**Wednesday 1:00-2:00, 125 Cory Hall, CCN: 25260**

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**  
**Growing Up Chicano (P/NP)**  
**Professor Genaro Padilla**  
**Tuesday 3:30-5:30, 305 Wheeler Hall, CCN: 28481**  
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 August 31, 2004 and ending October 19, 2004.**

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 2**  
**William Blake’s Songs of Innocence and of Experience (P/NP)**  
**Professor Morton Paley**  
**Wednesday 2:00-4:00, 360 Bancroft Library, CCN: 28484**  
In recent years the study of William Blake has come to concentrate more and more upon what has been called his composite art—the union of text and image that characterized Blake's work in illuminated printing. In this seminar we'll study the interactions of words and images in Blake's most accessible book: the *Songs of Innocence and of Experience*. The seminar will meet in the Stone Room of the Bancroft Library so that we can make use of the library's extensive collection of Blake facsimiles and also look at some original Blake engravings. We'll also be able to use an invaluable research tool on the World Wide Web: the William Blake Archive. In order to fulfill the seminar requirements you need to do the following: 1) Register in advance as a Bancroft Library reader. (This takes only a few moments, but if everybody waits until just before our first meeting, we'll lose a lot of time.) 2) Obtain the text written by William Blake and edited by Geoffrey Keynes—it will be at the customary bookstores, or you can get it at amazon.com—and bring it to each seminar meeting so we can study it together closely and compare it with facsimiles of other copies. 3) Come regularly to seminar meetings and participate in discussion. 4) Write an essay on some aspect of our subject, due at our next-to-the-last meeting. Our subject for the first meeting is plates 1-4, 12, 19, 28, 29, 33, and 37. Please study these with the editorial notes, and read the editor's introduction as well.

Professor Emeritus Morton Paley has been a Guggenheim Fellow twice, a Fellow of The National Endowment for the Humanities, and Senior Fulbright Lecturer at the University of Heidelberg. He was a visiting professor at the Institute of Technology in Zurich. He has published several books, including three on William Blake: *Energy and the Imagination* (Oxford), *William Blake* (Phaidon) and *The Continuing City* (Oxford).

**English 24, Section 3**  
**British and American Poetry of the Nineteenth Century (P/NP)**  
**Professor Samuel Otter**  
**Wednesday 4:00-5:00, 206 Wheeler Hall, CCN: 28486**  
In this seminar, we will consider what nineteenth-century British and American poets have to say (issues of self, desire, pleasure, memory, freedom, faith, beauty, nature, and nation, among others) and how they say
these things (features of line, syntax, diction, trope, meter, rhyme, and form). We will read a range of poets, including Blake, Wordsworth, Coleridge, Shelley, Keats, Poe, Dickinson, Whitman, Browning, Arnold, Melville, Rossetti, and Hopkins. Students who are interested in the analysis of poems, in nineteenth-century British and American literature, in the specific poets listed, or in writing poetry are encouraged to enroll in this seminar.

Samuel Otter is an Associate Professor in the English Department. His interests include seventeenth-, eighteenth-, and especially nineteenth-century American literature, in particular the relationships between literature and history. He has published a book on Herman Melville and currently is writing a book on narrative, race, citizenship, manners, and violence in Philadelphia between the Constitution and the Civil War.

English 24, Section 4
Joyce's Dubliners in Joyce's Dubliners (P/NP)
Professor Robert Tracy
Monday 3:00-5:00, The Library in Unit Three at 2400 Durant Avenue, CCN: 29180
James Joyce's Dubliners (1914) is a collection of short stories about his native city. Joyce helps invent the modern short story as he tries to evoke the mood or spirit of Dublin as it manifests itself in the behavior of Dublin men and women. When Joyce wrote, Ireland was still ruled from London both politically and culturally. Joyce's book is a declaration of cultural independence, as he makes his subject matter the muted lives of middle-class Dubliners. In these stories he studies the social tapestry of Dublin, portraying his characters as protagonists of their own dramas, but at the same time shaped by their environment and so part of the larger Dublin story. This seminar will meet for eight weeks, beginning September 13, 2004 and ending November 1, 2004.

Robert Tracy is Emeritus Professor of English and of Celtic Studies. He has served as Visiting Professor of Anglo-Irish literature at Trinity College, Dublin; of American literature at Leeds University; and of Slavic Studies at Wellesley; and has been Associate Director of the University of California Dickens Project. His publications include a study of Trollope's novels, editions of works by Synge, Trollope, Le Fanu, and Flann O'Brien, and Stone, a translation from the Russian of poems by Osip Mandelstam. His Unappeasable Host: Studies in Irish Identities was published in Dublin in July 1998.

Environmental Science, Policy and Management 24, Section 1
Discussions on Evolutionary Biology (P/NP)
Professor Philip Spieth
Wednesday 3:00-4:00, 2030 Valley Life Sciences Building, CCN: 30451
Discussions on Evolutionary Biology is a seminar for freshmen that explores the intellectual excitement of evolutionary biology and examines its significance for understanding the world we live in. Weekly readings and roundtable discussions introduce basic facts and principles of evolutionary biology, including both historical perspectives and contemporary issues. Attention is given to popular misconceptions of biological evolution. For more information, please visit the seminar’s website at http://cnr.berkeley.edu/~pts.

Philip T. Spieth is an Emeritus Professor in the Department of Environmental Science, Policy, and Management who worked with computer models of evolution and studied genetic variation in natural populations of fungi. He joined the faculty of the former Department of Genetics in 1971 and taught population genetics for thirty years at UC Berkeley in both introductory genetics courses and in courses for advanced undergraduates and graduate students and has been a co-author of a general genetics textbook. He created and has taught Discussions on Evolutionary Biology since the inception of the freshman seminar program in the early 1990’s. Currently he works with the National Center for Science Education, a nonprofit organization devoted to the teaching of evolutionary biology in public schools.

Environmental Science, Policy and Management 24, Section 2
Issues in Natural Resource Conservation (P/NP)
Professor David L. Wood
Friday 9:00-10:00, 139 Mulford Hall, CCN: 30454
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
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.
There is no better introduction to the mature philosophy of Friedrich Nietzsche than *Beyond Good and Evil*, which appeared in 1886. Consisting of nine sections, this work provides insight into all the major theses in his late philosophy. It begins with reflection on epistemology and a skeptical look at the role of the philosopher, moves to a consideration of what the “free spirit” will offer as an alternative, and then turns to detailed considerations about religion, psychology, morality, and art. We will be reading and discussing this seminal work of Nietzschean philosophy in one-hour sessions at approximately the pace of one section per session. Students will be expected to contribute to discussions and to make on occasion short presentations on individual aphorisms. One three-page written assignment is expected at the close of the course: an analysis of an aphorism or group or aphorisms, or an imitation of Nietzsche's aphoristic style on a topic of your choice.

Professor Holub specializes in German cultural, intellectual, and literary history of the nineteenth and twentieth century. He is currently working on a book about Nietzsche and the nineteenth century.

**History 24, Section 1**  
*The Creation, Operation, and Dismantling of Apartheid in South Africa (P/NP)*  
Professor Tabitha Kanogo  
**Tuesday 10:00-12:00, 2303 Dwinelle Hall, CCN: 39043**  
Apartheid, the social, political and economic policy of racial segregation and discrimination in South Africa, formally ended in 1994. This course will examine the origins, development, effects, and the dismantling of the Apartheid regime. Class discussions will be based on a variety of historical documents, films and documentaries including the powerful *Soweto to Berkeley* documentary, which captures UC Berkeley students’ contribution to the anti-Apartheid movement in the mid-1980s. **This seminar will meet the first eight weeks of the semester.**  

**History of Art 24, Section 1**  
*Looking at Berkeley Buildings (P/NP)*  
Professor David Wright  
**Wednesday 2:00-4:00, 308B Doe Library, CCN: 05515**  
This seminar is based on close study of the best buildings on campus and includes comparison with some of the worst. The goal is to learn to analyze buildings objectively, to understand the rationale behind buildings in different styles, and to develop criteria for a balanced judgment of them. We will also study the 1899 ideal plan for the campus, the official 1914 plan, and the present state of the arrangement of buildings, plazas, and planting on campus. There will be weekly study assignments to look closely at specific buildings, to make very simple drawings of them (no experience or talent expected) and to write short descriptive comments. Two-hour classes will normally begin with a discussion of the current assignment, will include a short slide lecture for background for the next assignment, and will end with a collective visit to a building involved in the assignments. No reading; lots of walking, looking, and discussing; some drawing and writing. The final very short paper will be a critical report on a building chosen by the student. **Attendance at the first seminar meeting is necessary. This seminar will end on Wednesday, November 17, 2004 to leave students free for their work in other courses.**  
Professor David H. Wright completed the requirements in Physics at Harvard in three years, just after the war; however, for his general education requirement, he took a course with the Dean of the School of Design. That course and two other courses in history of art persuaded him to switch and graduate in Fine Arts, and to take the Bauhaus Basic Design course with Joseph Albers. He has taught at Berkeley since 1963. All his scholarly publications concern Late Antiquity and the Dark Ages, but he cares passionately about the architecture and civic design we live with every day.

**Industrial Engineering 24, Section 1**  
*Overview of IEOR (P/NP)*  
Professor Rhonda Righter
Thursday 3:00-4:00, 433 Latimer Hall, CCN: 41003
This seminar offers a bird's eye view of IEOR. Each week a faculty member or visitor from the IEOR Department will discuss some aspect of his or her research interests. Students considering a major in Industrial Engineering and Operations Research or in the potential new L&S major in Operations Research and Management Science are encouraged to enroll in this seminar. Rhonda Righter is a Professor and alumna of the Department of Industrial Engineering and Operations Research. She does research in the general area of stochastic modeling and optimization, especially as applied to manufacturing, service, and telecommunication systems.

Integrative Biology 24, Section 1
Professor Roy L. Caldwell
Monday 3:00-4:00, 5192 Valley Life Sciences Building, CCN: 43006
A homing pigeon can return to its loft after being shipped one thousand km to a place it has never been. A whale spends its summers in the Bering Sea and its winters near Maui. A female sea turtle returns for the first time to a beach where she hatched thirty years earlier to lay her own eggs. A Monarch butterfly flies south two thousand km to spend the winter in a secluded grove in central Mexico. A limpet returns forty cm to a favorite depression in a rock. The abilities of animals to navigate have intrigued biologists for decades. We will read a series of papers describing how animals navigate and how they use such methods as landmarks, celestial cues, and geomagnetic fields to determine where to go and what route to follow. We will also attempt to replicate experiments that suggest that humans are able to navigate using geomagnetic fields. At the end of the semester, each student will be required to write a short review paper discussing navigation and orientation by an animal of his or her choice. Registration for this seminar is by instructor approval only. Obtain required instructor approval by going to the first class meeting and securing a class entry code from the instructor.

Professor Caldwell received his Ph.D. in Zoology from the University of Iowa and has been a member of the Berkeley faculty, teaching animal behavior, since 1970. His research interests are in the areas of insect migration and the functions of communication and aggression in marine crustaceans and octopus.

Integrative Biology 24, Section 2
Geology and Marine Biology of the Central California Coast (LG)
Professor Jere Lipps
Day, Time, and Location TBA, CCN: 43009
This seminar will include three one-hour meetings to discuss the field trips, one afternoon field trip along the Hayward Fault in Berkeley and Oakland, and a three-day field trip across the coast ranges to Tomales Bay and the UC Bodega Marine Laboratory where we will spend two days examining the marine and coastal biology and the geology of the San Andreas Fault. Field guides will be provided for discussion and use on the trips. The class will stay at the Bodega Marine Laboratory Friday, September 17 through Sunday, September 19, 2004. Food and housing costs at the Bodega Marine Lab will be collected for the field portion of the course; the costs will be announced at the first class meeting or sooner on this web page if available. The remaining days, times, locations, and dates of this seminar will be added to this web page when available. A paper describing and interpreting some aspect of the field work will be required before the Thanksgiving holiday, November 25, 2004. There are no prerequisites, although an intense interest in marine biology and geology will be beneficial. Enrollment is limited to twelve students. Registration for this course is by instructor approval only. If you are interested in taking this course, email Professor Jere Lipps at jlipps@uclink4.berkeley.edu and tell him what your major or intended major is, what your interest in geology and biology is, and why you think this class will help you at the university and in your career. For additional information on the Bodega Marine Laboratory, see http://www-bml.ucdavis.edu/, and for the Hayward Fault, see http://www.seismo.berkeley.edu/seismo/hayward/hayward.overview.html.

Jere Lipps is a geologist and marine biologist and Professor of Integrative Biology and Curator of the Museum of Paleontology at UC Berkeley. For more information about Professor Lipps, please visit his website at http://www.ucmp.berkeley.edu/people/jlipps/jlipps.html.

Integrative Biology 24, Section 3
The Stone Age (LG)
Professor Tim White
Wednesday 3:00-5:00, 18 Hearst Gym, CCN: 43011
This seminar is an overview of human evolution and prehistoric archaeology. The seminar considers the methods and findings of human evolutionary studies, and introduces laboratory and field investigations into this topic. It will cover the biological and technological evidence of human evolution across the last six million years, and will focus on current debates about human origins. Hands-on experience with fossils and artifacts from around the world will be an integral part of the seminar. Students will be introduced to primary research papers and will be encouraged to critically evaluate published claims about human evolution and related subjects. This seminar will meet for eight weeks, beginning August 30, 2004 and ending October 20, 2004.

Professor Tim White has taught at all levels on the Berkeley campus for twenty-seven years, first in the Anthropology Department, and now in Integrative Biology. He conducts fieldwork in Africa and Eurasia and has made many discoveries relating to the topic of the seminar. He co-directs Cal's Laboratory for Human Evolutionary Studies and is the Curator of Biological Anthropology in the Hearst Museum of Anthropology.

Integrative Biology 24, Section 4
Dinosaur Biology: An Introduction to Research (LG)
Professor Kevin Padian
Wednesday 12:00-1:00, 5192 Valley Life Sciences Building, CCN: 44236
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 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 works 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 storytelling—sound, 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 September 15, 2004 and ending November 3, 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 produced a series of videotapes on broadcast journalism and a film on female journalists in Asia and written several articles. She frequently spends the summer in Singapore, where she has done research on freedom of the press, consulted with television news reporters there and lectured 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 videotape about the community. She holds a bachelor's degree in history from Goucher College.

Journalism 24, Section 2
Race and Politics (LG)
Professor Lydia Chavez
Tuesday 12:00-1:30, 127 North Gate Hall, CCN: 48006
Using Thomas and Mary Edsall's book, The Impact of Race Rights and Taxes on American Politics, and Lydia Chavez's book, The Color Bind: California's Battle for Affirmative Action, we will look at race politics in California and in the presidential election. This seminar will meet the first ten 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
The Disappearance of Information (LG)
Professor Thomas C. Leonard
Monday 3:30-5:00, 245 Doe Library, CCN: 48009
Each week this semester we will review a different cry of alarm about the loss of some part of our cultural heritage or modern research findings because a library failed to preserve this information. We will ask: Is this true? Does this matter? What, if anything, should be done? We will spend other sessions looking at records of the past that have been saved, thanks to extraordinary efforts in a Berkeley library, and we will again ask, So what? Berkeley librarians and archivists will participate in this seminar and in some cases they will lead tours of their collections. Reading will include Fahrenheit 451 by Ray Bradbury and Eadweard Muybridge and the River of Shadows: Technological Wild West by Rebecca Solnit. This seminar is also listed as Mass Communications 24, Section 1 (CCN: 53235). Professor Leonard has published three books on the development of American media and leads one of the largest research libraries in the United States. He has taught in the Graduate School of Journalism since 1976 and is a past director of the Mass Communications Group Major.

Journalism 24, Section 4
Human Rights in China (P/NP)
Visiting Instructor Xiao Qiang and Dean Orville Schell
Day, Time, and Location TBA, CCN: 48011
Since 1978, China has undergone a very rapid pace of economic reform. However, the pace of political reform has been much slower. This means that even though the government has put more emphasis on "the rule of law," the protection of basic political and human rights in China has lagged far behind the protection of economic rights. This seminar will examine the conception of human rights in traditional China under Confucian orthodoxy, during the Chinese Communist Revolution under Maoist ideology, and finally during the period of reform begun by Deng Xiaoping as China began to seek to find both a new political sense of itself and a new cultural identity for its people in an increasingly globalized world. In addition to reading and class discussion, students are also required to participate in a collaborative blogging project: China Digital News. This seminar will meet for eight weeks, beginning and ending dates to be arranged. Enrollment is limited to twelve students. For the day, time, location and dates of this seminar, please revisit this web page in the future. Xiao Qiang, a recipient of a MacArthur fellowship, is the Founding Executive Director of Human Rights in China, an international non-governmental organization founded by Chinese scientists and scholars in 1989. Orville Schell, dean of the Graduate School of Journalism, is a long-time observer of China and the author of numerous books, including Virtual Tibet, Mandate of Heaven, and Discos and Democracy. He has also written widely about Asia for Wired, The New York Review of Books, the New Yorker, Harper's, Newsweek and other national magazines.

Journalism 24, Section 5
The Presidential Campaign Trail in Print (and Occasional Film) (LG)
Susan Rasky
Day, Time, and Location TBA, CCN: 48198
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 final leg of 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. Students will have their own political weblog to write about the campaign and about campaign coverage. **This seminar will meet for eight weeks, beginning and ending dates to be arranged. For the day, time, location and dates of this seminar, please revisit this web page in the future.**

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, 263 Dwinelle Hall, CCN: 52168**
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.

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.

Mass Communications 24, Section 1
**The Disappearance of Information (LG)**
Professor Thomas C. Leonard
**Monday 3:30-5:00, 245 Doe Library, CCN: 53235**
This seminar is also listed as Journalism 24, Section 3 (CCN: 48009). For the seminar description and faculty information, please see the listing under Journalism 24, Section 3.
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: 54633
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, 3102 Etcheverry Hall, CCN: 56003
This seminar will examine two devices near and dear to 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 eleven 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.

Mechanical Engineering 24, Section 2
Computer Graphics Tools (P/NP)
Professor Dennis K. Lieu
Monday 5:00-6:00, 3107 Etcheverry Hall, CCN: 56006
Bitmap or vector? JPG or TIF? AutoCAD or ProE? This seminar will provide an overview of many of the computer graphics formats available today on PC's. Find out about two-dimensional drawing, three-dimensional solids modeling, animation and special effects. Students will be introduced to sophisticated technical drawing and modeling tools such as AutoCAD, Solidworks, Pro/E and 3D Studio.
Dennis K. Lieu is a Professor in the Department of Mechanical Engineering. He teaches beginning and advanced engineering design graphics classes in the College of Engineering.

Molecular and Cell Biology 90B, Section 1
Biology in the Post-Genomic Years: Where is the Program for Life? (P/NP)
Professor Richard Strohman
Tuesday 12:00-2:00, 321 Haviland Hall, CCN: 57823
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
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 90B, Section 2**  
**Insulin as a Window on Discovery in Biology (P/NP)**  
**Professor Randy W. Schekman**  
**Tuesday 3:00-4:00, 2301 Tolman Hall, CCN: 57826**

The discovery and therapeutic application of insulin was one of the most dramatic developments in twentieth-century biomedical science. We will consider the impact of insulin in protein biochemistry, and molecular and cell biology. We will also explore the role of the individual scientist in the process of discovery and the importance of animal research in biomedical science. A book entitled *The Discovery of Insulin* by Michael Bliss will be available in the student bookstore. *Glory Enough For All*, a Canadian film and dramatic portrayal of the insulin story, will be available for viewing. Students considering a major in Molecular and Cell Biology as well as all other interested students are welcome to enroll.

Randy Schekman is a Professor of Molecular and Cell Biology and an Investigator of the Howard Hughes Medical Institute. For further information, please visit the following websites:

http://mcb.berkeley.edu/faculty/CDB/schekmanr.html,  
http://mcb.berkeley.edu/labs/schekman/, and  

**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, 2032 Valley Life Sciences Building, CCN: 57835**

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 à 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.

**Natural Resources 24, Section 1**  
**Dean's Night Out: People and the Environment (P/NP)**  
**Professor Barbara Allen-Diaz**  
**Thursday 4:30-6:30, 139 Mulford Hall, CCN: 61303**

You will be introduced to the different ways of examining the environment and finding solutions to major environmental and natural resource problems. You will meet with the College of Natural Resources faculty and alums who will speak informally about their work, their preparation for it, and the problems it addresses. The seminar will meet six times during the semester: September 2, September 16, September 30, October 21, November 4, and November 18, 2004. The last session will include a dinner at Professor Allen-Diaz' house for students and faculty and alum participants. Attendance is mandatory.

Barbara Allen-Diaz is a Professor in the Department of Environmental Science, Policy and Management. She is Executive Associate Dean of the College of Natural Resources. Her research interests are in plant community dynamics and the effects of livestock grazing on watersheds.

**Natural Resources 24, Section 2**  
**Global Environment House Freshman Seminar (P/NP)**
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 Food for Thought Seminar Series. For the day, time, and location of this seminar, please revisit this web page in the future.

John Battles is an Associate Professor of Ecosystems Sciences in the Department of Environmental Science, Policy and Management. He received his PhD in Forest Community Ecology from Cornell University. His research addresses how and why forests change, specifically, the non-equilibrium determinants of forest composition, structure and function. Professor Battles will organize the Global Environmental Theme House field trips for the fall semester.

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 on each of the UC campuses. But his most exciting assignment was to serve on The Chancellor's Commission to Study the University's Responses to a Diversified Student Body.

Near Eastern Studies 24, Section 1
Exploring the Archaeology of Ancient Egypt in the Hearst Museum (LG)
Professor Carol Redmount
Monday 1:00-2:00, Exhibit Gallery in Hearst Museum, CCN: 61439
The Hearst Museum has one of the most important collections of ancient Egyptian artifacts in the United States and the best west of Chicago. Most of the almost 19,000 ancient Egyptian objects in the museum came from excavations undertaken in the early 1900s by George Reisner, with funding provided by Phoebe Apperson Hearst. Only a very tiny fraction of this collection is ever displayed in the museum, due to space constraints. In this seminar, we will examine the background and history of the collection, its housing and treatment in the museum, and various individual objects from the collection. Classes will be held in the museum, and students will both learn to use various resources of the museum and have the opportunity to work with ancient objects.

Carol Redmount is an Associate Professor in the Near Eastern Studies Department. She specializes in the archaeology of Egypt and the southern Levant, and directs the new UC Berkeley excavations at El-Hibeh, a three-thousand-year-old site in Middle Egypt. She began her archaeological fieldwork the summer of her freshman year in college and hasn't stopped excavating since. She first worked in Egypt in 1978 and lived in Cairo for three years in the mid-1980s. She also has taken part in archaeological research in Cyprus, Israel, Jordan, Tunisia, and the United States.

Near Eastern Studies 24, Section 2
Excavating Iraq: Archaeology and Uses of the Past (P/NP)
Professor Marian Feldman
Monday 1:00-2:00, 186 Barrows Hall, CCN: 61442
This seminar explores the way the ancient past has actively configured the present through a historical examination of the practice of archaeology in Iraq. It will concentrate primarily on the period from the mid-nineteenth century up to the present day. Before the nineteenth century, the ancient Mesopotamian civilizations were mostly known in the western world through Biblical and Greek sources. With the advent of archaeology, the languages, literatures and arts of these long-gone peoples reemerged in dramatic form, for example the lavishly outfitted tombs of Ur that contained the bodies of tens of attendants who went to their
deaths along with their deceased masters and mistresses around 2600 BCE. Larger-than-life figures, such as Sir Austen Henry Layard who excavated at the Assyrian capital of Nimrud in the 1840s, will be discussed, as well as the more recent use of archaeology by the now-deposed Iraqi president Saddam Hussein in his political propaganda. Questions of colonialism and nationalism, and how they influence the writing of history, will also be addressed. The seminar will consist mainly of a variety of readings to stimulate weekly discussions. **In addition, field trips to local collections of Mesopotamian artifacts will be arranged.** Marian Feldman is an assistant professor in the Near Eastern Studies Department. She specializes in the art of the ancient Near East, including Mesopotamia, and has excavated in Syria and Turkey. Her particular research interest is the role of art in intercultural relations between the Near East, Egypt, and Greece.

**Nuclear Engineering 24, Section 1**  
**Ethics and the Impact of Technology on Society (P/NP)**  
Professor William E. Kastenberg  
**Tuesday 3:00-4:00, 55 Evans Hall, CCN: 64003**  
Because of the rapidly changing nature of technology, new and complex ethical issues are emerging that bring into question the ability of society to address and, ideally, resolve them. New issues are arising in such areas as biotechnology, information technology, nanotechnology and nuclear technology, and range from protecting the health and welfare of the public and the environment, to patenting living organisms and labeling products containing genetically modified organisms, to concerns regarding the alteration of the ecology of life. This seminar focuses on the nature of these emerging technical issues, their ethical, legal, and social ramifications, and what individuals and our society value in relation to these issues. We will examine what philosophy, religion and art, and natural and social science have to say about these issues. 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, 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 on the quantification of uncertainty. Professor Kastenberg has won a distinguished teaching award from the American Society for Engineering Education.

**Nutritional Sciences and Toxicology 24, Section 2**  
**Toxics in Daily Life (P/NP)**  
Professor John Casida  
**Wednesday 3:00-4:00, 138 Morgan Hall, CCN: 64599**  
This seminar will consider aspects of our interaction with toxic chemicals on a daily basis by intent or accident. Specialists in toxicology will describe survival in a sometimes hostile or toxic environment. Students will be expected to participate in discussions of these topics including the scientific, social and legal aspects. Each student will also give a short seminar on a topic of personal interest. **This seminar is open to freshmen and sophomores.**  
Professor Casida's research interest is in the mode of action and metabolism of organic toxicants with emphasis on pesticide chemistry and toxicology. He obtained his degrees in biochemistry, entomology and plant physiology from the University of Wisconsin, where he taught until joining the UC Berkeley faculty in the Department of Environmental Science, Policy, and Management (Division of Insect Biology) and the Department of Nutritional Sciences and Toxicology.

**Nutritional Sciences and Toxicology 24, Section 3**  
**Nutrition in the News (P/NP)**  
Lecturer and Director of Dietetics Program  
Nancy Hudson  
**Wednesday 12:00-1:00, 138 Morgan Hall, CCN: 64602**  
This seminar is designed to help students interpret the food and nutrition news that they encounter in the media. Discussion topics will come from the Wednesday food section of various newspapers around the country.  
Nancy Hudson's career as a nutrition educator spans more than twenty years, during which she has taught medical, nursing, allied health and other students at both the undergraduate and graduate levels. She finds teaching to be especially rewarding when working with individuals planning to become Registered Dietitians.
In addition to teaching, she has directed the undergraduate program in dietetics at the University of California at Berkeley since 1992. This program is ranked eighth in the country (The Gourman Report, 1998). In related practice, Ms. Hudson has worked in dietetics management and clinical nutrition, and volunteered as the resident dietitian for a summer camp for children with diabetes. She received the College of Natural Resources Distinguished Teaching Award in 1998. Her book, Management Practice in Dietetics, was published in August of 1999.

Philosophy 24, Section 1
_The Odyssey_ of Homer (P/NP)
Professor Wallace Matson
**Thursday 4:00-5:00, 234 Moses Hall, CCN: 67171**
Reading and discussion of the first European novel, in the translation by Robert Fagles (Penguin Books). Professor Emeritus Wallace Matson has been a teacher of philosophy at UC Berkeley since 1955. Before that, he was an undergraduate (1938-42) and graduate (1946-49) student.

Physics 24, Section 1
_Controversial Issues in Physical Science_ (P/NP)
Dr. Paul Berdahl
**Wednesday 2:00-3:00, 395 Le Conte Hall, CCN: 69876**
How is experimental data used to answer controversial questions in the physical sciences? We will discuss how major issues such as global warming, cold fusion, high-temperature superconductivity, polywater, wave-particle duality, etc., have been resolved. Both phenomena that turned out to be real and those that turned out to be spurious are included. Students are welcome to suggest additional controversial issues for discussion, and are expected to report briefly to the class on one topic.

Dr. Paul Berdahl is an applied physicist at Lawrence Berkeley National Laboratory. His research interests include optical properties of materials, high-temperature superconducting wires, and radiative transfer in the atmosphere.

Psychology 24, Section 1
_Cultural Assumptions of American Thoughts_ (P/NP)
Professor Kaiping Peng
**Thursday 10:00-11:00, 3108 Tolman Hall, CCN: 74683**
This course is about cultural assumptions of American thought systems. Psychologists have studied American minds more than those of any other cultural group on earth and often assumed the American psyche to be representative of universal human minds. However, such assumptions need to be critically reviewed. The limitations and shortcomings of the American psyche need to be explored in cross-cultural contexts. This seminar will offer the students a particular kind of insight into the cultural assumptions of American minds—their characteristic biases, modes of thinking and perceiving, values, and beliefs—that they are unlikely to find elsewhere. It will do this by contrasting their cultural assumptions with those from other cultures, primarily but not exclusively those of Asians and ethnic minority groups in the United States. Its theoretical foundations lie in the burgeoning field of cultural psychology, which looks at how culture influences the basic functioning of our minds. This seminar will be useful for all students seeking to understand themselves better, whether to help find their way in other cultures, to navigate a growing multicultural society, to negotiate the vagaries of an international market, or for just plain psychological insight. And it will be useful for those who want to make sense of the way Americans think and act, something increasingly important in a global economy as the US establishes itself in foreign markets and tensions increase among different cultures and civilizations.

Kaiping Peng is Associate Professor of Psychology at UC Berkeley. He received his B.S. from Beijing University, People's Republic of China, in 1994 and his M.S. and Ph.D. from the University of Michigan, Ann Arbor. His research interests are social and cultural psychology, including human reasoning, inference, and cross-cultural understanding.

Psychology 24, Section 2
_Getting to Know the UCB Faculty_ (P/NP)
Professor Christina Maslach  
**Monday 4:00-5:30, 2235 Tolman Hall, CCN: 75863**

Research has shown that faculty-student contact plays a key role in the quality of the undergraduate experience. So naturally, students should jump at the chance to meet the faculty and visit them regularly during office hours, right? Unfortunately, that doesn't happen as much as it should, and the question is “why?” In this seminar, we'll tackle this challenge in a number of ways, including doing some of our own research on the topic. Students will not only develop their own skills in meeting faculty, but will develop some new recommendations on how to enhance student-faculty engagement on the Berkeley campus. **This seminar will meet the first ten weeks of the semester.**

Vice Provost Christina Maslach received her undergraduate degree from Harvard-Radcliffe College, and her Ph.D. from Stanford University. She has conducted research in a number of areas within social and health psychology, and is best known for her pioneering research on job burnout. She has won the Distinguished Teaching Award at UC Berkeley, and in 1997 she was given national recognition as “Professor of the Year.”

**Psychology 24, Section 3**  
**Memory Confusions, Recovered Memories, and False Memories (P/NP)**  
**Professor Donald A. Riley**  
**Wednesday 1:00-3:00, G75 Tolman Hall, CCN: 75866**

How good are we at knowing the source of our memories? For example, how do we tell whether we actually experienced an incident or whether we dreamed it, were told about it, or read about it? In recent years, psychologists have conducted many studies and amassed a large amount of evidence bearing on this issue. As a group, the seminar will read some recent papers and book chapters, and will consider problems of method, theory, fact, and to some extent the societal implications of this research. A short paper will be expected at the end of this semester.

Professor Emeritus Donald A. Riley is a student of human and animal learning and memory. He is currently conducting research on errors in human memory.

**Psychology 24, Section 4**  
**The Control of Behavior (P/NP)**  
**Professor Karen K. De Valois**  
**Monday 3:00-4:00, G75 Tolman Hall, CCN: 75869**

Psychologists study behavior. Behavior that is well understood can also be controlled. In this seminar we will discuss both ethical concerns and scientific questions that occur when the lessons of psychology are applied to everyday life. We will consider such topics as attempts to hone the political message of candidates for high office (in order to control the voting behavior of the public) and whether or when society should compel behavior that is against the expressed will of an individual. Students will be expected to do the required reading, participate in class discussions or debates, and write one-to-two-page position papers on topics of interest.

Professor De Valois received her Ph.D. from Indiana University. She has a joint appointment at UC Berkeley in Psychology and Vision Science. Her research has focused on vision, psycho-physics and physiology.

**Psychology 45, Section 1**  
**Freshman Seminar (P/NP)**  
**Instructor TBA**  
**Day, Time and Location TBA, CCN: 74684**

This seminar includes weekly discussions of the nature, methods and aims of contemporary psychology. Students are expected to read an article each week and actively participate in the discussion with the speaker. **Prerequisites: This seminar is open to students in the Psychology Freshman Cluster Program. For the instructor, day, time and location of this seminar, please revisit this web page in the future.**
Scandinavian 24, Section 1
Representing the Child in Scandinavian Film (P/NP)
Professor Linda Rugg
Friday Time TBA, 6415 Dwinelle Hall, CCN: 78729
Scandinavia has been at the forefront of both domestic and international movements to promote children's rights. Children's literature has always occupied an important place in Scandinavian culture, and Scandinavian film often reflects a concern with the perspective of children, their view of the world, their victimization by adults, and so on. This course will take a look at films from Scandinavia that focus on children. These will include the story of an artistic boy and his confrontation with the world of spirits (Fanny and Alexander, Bergman), a boy who loses his mother but finds a community of love (My Life as a Dog, Hallstrom), a son of Holocaust survivors in Norway (Mendel, Roesler), a brother and sister surrounded by immature adults (Together, Moodysson), and a young girl sold into prostitution (Lilya 4-ever, Moodysson). The class will watch the films together and discuss them afterwards. For the meeting dates and time of this seminar, please revisit this web page in the future.

Social Welfare 24, Section 2
Introduction to Community Organization and the Nonprofit Sector (P/NP)
Professor Ralph Kramer
Wednesday 2:00-4:00, 10 Haviland Hall, CCN: 80706
This course is designed to provide freshman students with an innovative learning experience in both class and voluntary community service. Students will acquire new knowledge and a better understanding of the structure and role of nonprofit social-service agencies through eight weekly lecture discussions, selected readings distributed in class, and a weekly service-learning experience of participant-observation in a community social agency. The latter will also serve as the source of data for student preparation of an organizational profile due a week after the last seminar class meeting as the major assignment for a Pass grade. There will also be two panel discussions during the fourth and seventh week featuring executives of several nonprofit organizations and philanthropic foundations in the San Francisco Bay Area. This seminar will meet the first eight weeks of the semester.

Sociology 24, Section 1
Life Course and the Transition to College (P/NP)
Professor Thomas B. Gold
Friday 11:00-12:00, Unit Three Library, CCN: 81695
Life course is an approach in Sociology that systematically links the biography of the individual with the larger social, political, cultural and economic context in which the individual lives. This seminar first looks at the concept of life-course and how we link biography and history. We will reflect on the life course trajectories of class members to see what we share and where we differ, and why. The bulk of the term will address specific issues in adjusting to the environment at Cal. We will learn about the changes the campus itself has experienced through viewing the documentary Berkeley in the Sixties, and reading selected materials. We will have visitors from different campus units charged with assisting new students who will reflect on how student cohorts have changed. Students will keep journals of their own experiences set against the changing contexts of their life course. This seminar is intended for first-semester freshmen. It is part of the Food for Thought Series and Professor Gold looks forward to having lunch with his students in the Unit Three Dining Commons from 12:00 to 1:00 pm each week to continue the seminar discussion in a more informal setting.

Professor Thomas Gold specializes in studying the societies of the Pacific Rim, primarily mainland China, Taiwan and Hong Kong. He has lived in Asia for many years and travels there regularly for research and
conferences. He studies the life course, private business and democratic change in those societies. At Cal he teaches Introductory Sociology as well as courses on development, culture, and China.

Spanish 24, Section 1
Talking Funny: Language Variation in Spanish and English Literary Texts (LG)
Professor Milton Azevedo
Thursday 1:00-2:00, 205 Wheeler Hall, CCN: 86190
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. Grades 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
Spanish Medieval Tales of Magic, Saints, and Miracles (P/NP)
Professor Jesús D. Rodríguez-Velasco
Tuesday 10:00-11:00, 210 Dwinelle Hall, CCN: 86192
In this class we are going to read a selection of medieval Spanish tales dealing with the supernatural. Our interpretation will try to explore the ways in which we have built supernatural explanations of what seems to be unexplainable from a natural point of view. What is the role such interpretations play in our life? Why do they adopt the form of a literary tale? How do we insert them into our everyday conversations, if we do, as medieval people normally did? How do these narratives become part of a set of beliefs? These are only some of the questions we will address in this seminar. Full participation of the students is required. Students will have the option to participate in either Spanish or English. Readings will be in Spanish. **Prerequisite: the equivalent of Spanish 4 (AP score of 5 in Spanish or 5 years of Spanish in junior high/high school).**

Jesús D. Rodríguez-Velasco is an Associate Professor of Spanish. His main research interests include medieval literature and theory. He is also interested in photography and music. He was a professor at the École Normale Supérieure, Paris; University of Salamanca, Spain; University of Montpellier, France; University of Paris III, France; and University of Szeged, Hungary. Professor Rodríguez-Velasco has published seven books and almost one hundred articles on his research interests and has published some pictures in magazines and books.

Theater, Dance and Performance Studies 24, Section 2
Documentary Playmaking: School Integration, Little Rock, 1957-58 (P/NP)
Professor Dunbar Ogden
Monday 2:00-4:00, 279 Dwinelle Hall, CCN: 88033
To Celebrate Brown v. Board of Education - Fifty Years - 1954-2004
On the fateful morning of September 4, 1957, a small group of African-American students walked up to the doors of Central High, Little Rock, to enroll in school and were turned away by the National Guard. Arkansas State Governor Faubus had called out the Guard to surround the building. "Blood will run in the streets," said Faubus, "if Negro pupils should attempt to enter Central High School." A racist mob seethed out front. Eventually the courageous group of children did enter. The first of them graduated in the spring of 1958. They came to be known as The Little Rock Nine, and Central High made history for being the first major integrated public high school in the South. Nowadays many people regard their mentor, Daisy Bates, on a level with Martin Luther King, Jr. Each student in our seminar will select a person who participated in the integration of Central High, study historical documents linked with that individual, and develop a monologue in the role of the person, perhaps as one of the Little Rock Nine or as the Governor or as the principal of Central High. We will experiment with role playing in order to come to know key people in photographs, newspaper reports, and eyewitness accounts of a powerful moment in the American story. Each student will be encouraged to experiment with a role different from his or her own gender and cultural background, though this experimentation is not necessary. Daisy Bates’ *The Long Shadow of Little Rock* and Melba
Pattillo Beals' *Warriors Don't Cry* will be the required books. **This seminar will meet for eight weeks, beginning August 30, 2004 and ending October 25, 2004. This seminar was formerly taught as Dramatic Art 24.**

Professor Dunbar H. Ogden is writing a book about the integration crisis at Central High School, Little Rock. During his previous research work—he is the author of books on actors, set design, and theatrical space—he has recorded live interviews in order to focus on the individual in an historic event.

**Vision Science 24, Section 3**
The Human Eye (P/NP)
Professor Richard C. Van Sluyters
Friday 2:00-4:00, 394 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 5**
Oh Say Can You See (P/NP)
Professor Dennis Levi
Tuesday 4:00-6:00, 395 Minor Hall, CCN: 66406

Visual illusions are tricks that the eye plays on the brain. Illusions can tell us a great deal about the heuristics (rules of thumb) and algorithms (structural rules) that might operate in the visual cortex. This seminar focuses on visual illusions and the eye and brain mechanisms that underlie them. The class will include demonstrations, a field trip to view “natural” illusions on the Berkeley campus, and another to view illusions at the Exploratorium. **This seminar will meet approximately every other week throughout the semester, beginning the first week of the semester.**

Dennis M. Levi is the Dean of the School of Optometry at the University of California, Berkeley. He received his initial training in Optometry in South Africa, and did advanced training in London and New York. He received the O.D. and Ph.D in Physiological Optics from the University of Houston, where he became a Professor of Optometry and Physiological Optics, and Associate Dean for Research and Graduate Studies in the College of Optometry. In 1996, he became the Cullen Distinguished Professor of Optometry, a lifetime University Chair. Dr. Levi achieved international prominence as a vision scientist for his research in amblyopia, a major cause of vision loss in children. He has been a recipient of the American Academy of Optometry's Garland Clay and Glenn Fry awards as well as an honorary doctorate of science from the State University of New York. He has served as Chair of the National Institutes of Health Visual Sciences B Study Section and a member of the institute's special review committee as well as on the editorial boards of a number of scientific journals.
FRESHMAN AND SOPHOMORE SEMINARS

- American Studies 39A: Introduction to American Popular Culture (3 units, LG)
- Computer Science 39J: The Art and Science of Photography: Drawing with Light (2 units, P/NP)
- Environmental Economics and Policy 39A: Critical Choices in the Use of Natural Resources (2 units, P/NP)
- History 39F: Classics in American History (4 units, LG)
- History 39R: Technology and Civilization in China and the West: Explorations in Comparative Cultural History (4 units, LG)
- History of Art 39A: Photography as a Fine Art (4 units, LG)
- Integrative Biology 39C: The Field of Veterinary Medicine (2 units, P/NP)
- Journalism 39G: Queer Eye for Straight Journalism Guys (1.5 units, P/NP)
- Native American Studies 90: Myth, Memory, and History: Understanding Native America (4 units, LG)
- Optometry 39B: The Developing World: Profound Challenges, Needs, and Opportunities—An Example Applied to Eye Care in India (2 units, P/NP)
- Plant and Microbial Biology 39A: Environmental Microbiology (3 units, LG)
- Political Science 39A: Truth, Lies, and Politics (2 units, LG)
- Political Science 41: Choosing a President (4 units, LG)
- Public Health 39F: Eating and Health Disorders (2 units, LG)
- Rhetoric 39E: Reading Descartes' Meditations (1.5 units, LG)
- Rhetoric 39F: Getting Inside the Text: Close Reading and the Art of Rhetoric (2 units, LG)
- Slavic Languages and Literatures 39J: Love among the Russians (2 units, LG)
- 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)
- South and Southeast Asian Studies 39G: "Think Gender" in Indian Short Stories (2 units, LG)
- Spanish 39E: Spanish American Short Story in Translation (3 units, LG)
- Women Studies 39F: Seminar Title (Unit Count, LG)
FRESHMAN AND SOPHOMORE SEMINARS

American Studies 39A
Introduction to American Popular Culture (3 units, LG)
Dr. Kathleen Moran
MW 4:00-6:00, 4 Evans Hall, CCN: 02018
This course will introduce students to the interdisciplinary study of contemporary popular culture in the United States. We will use a range of methods and approaches, and we will discuss a number of media forms, including television, film, magazines, music, advertising, material culture (toys) and fashion. Kathleen Moran is the Associate Director of the American Studies Program. She has written about nineteenth- and twentieth-century American political thought, and her research during the last decade has been focused on consumerism and American popular culture. Her recent course topics include film in the 1980s, advertising, theme parks, and food studies.

Computer Science 39J
The Art and Science of Photography: Drawing with Light (2 units, P/NP)
Professor Brian Barsky
Friday 12:00-2:00, 405 Soda Hall, 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. While this seminar is offered through the Computer Science Division, the focus of this seminar is not computer science. The focus of this seminar is photography. The seminar is open to all freshmen and sophomores who have experience using a camera that allows manual control of exposure and focus, and that either has interchangeable lenses of different focal lengths or has a zoom lens. Students need to have their own cameras to complete the course assignments. A passing grade requires student participation and attendance at all classes, except for prior arrangement with the instructor or emergencies. For more information regarding this seminar, please visit the course website at http://inst.EECS.Berkeley.EDU/~cs39j/. This seminar is part of the Food for Thought Seminar Series and Professor Barsky looks forward to having lunch with his students. The details regarding the lunch arrangements will be discussed in class.
Brian Barsky received his Ph.D. from the University of Utah in Computer Science and joined the UC Berkeley faculty in 1981. 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.

Earth and Planetary Science 39A
Geological Influences in California Society Today (2 units, LG)
Professors Donald Depaolo and Harold Helgeson
MW 5:00-6:00, 3108 Etchevery Hall, CCN: 19012
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.
Donald Depaolo is a Professor of Geochemistry with the Department of Earth and Planetary Science. He is the Director of the Center for Isotope Geochemistry at UC Berkeley and the Lawrence Berkeley National Laboratory, and is the Department Head of the Geochemistry Department in the Earth Sciences Division at the Lawrence Berkeley National Laboratory.
Harold C. Helgeson is a Professor of Geochemistry. For decades, he has taught and conducted research in theoretical geochemistry, thermodynamics, chemical petrology, solution chemistry, phase equilibria, kinetics, organic and biogeochemistry, and mass transfer in geochemical processes.

**Environmental Economics and Policy 39A**  
**Critical Choices in the Use of Natural Resources (2 units, P/NP)**  
**Professor David Zilberman**  
**Wednesday 12:00-2:00, 116 Haviland Hall, CCN: 01215**  
Natural resources in California are vast but finite, and demands on them are often in conflict. This seminar will examine the major decisions, private and public, that determine how our natural resources are managed and allocated. Drawing illustrations from their own work, members of the department will show the interplay of economic analysis with political and institutional factors in shaping public policies. Policy decisions on such subjects as pesticide use, forest preservation, water rights, dairy waste disposal, air pollution control, the Bay Delta ecosystem, and endangered species protection will be discussed.

Professor David Zilberman received his Ph.D. from UC Berkeley in 1979. His research interests include the effects of agricultural policies on the structure of agriculture, the economics of technological change, and the design of regional environmental policies. His current work targets water and pesticide problems. He was recently elected a Fellow of the American Agricultural Economics Association, and he has been published in many of the economics journals.

**History 39F**  
**Classics in American History (4 units, LG)**  
**Professor Richard Abrams**  
**Tuesday 2:00-5:00, 210 Dwinelle Hall, CCN: 39076**  
This seminar is designed especially to introduce college freshmen and sophomores to American history by acquainting them with some of the major works in the literature. Some are old classics, e.g., Ben Franklin's autobiography and Tocqueville's *Democracy in America*, which have become renowned almost as much as historical documents as for their historical content. Others, e.g., Kenneth Stampp's *Peculiar Institution*, Winthrop Jordan's *White Over Black*, and Matthew Josephson's *Robber Barons*, have taken on the character of classics in that almost from the moment they were published they became, and remained, indispensable reference points for every scholar who thereafter worked on their subjects. Finally, some of the books we will read (e.g., Kessner's *Golden Door*) may not deserve the title "classic" in either of the above senses, but rather serve exceptionally well to get into important modern subjects, or use special historiographical techniques that as yet enjoy no classic treatment. All the books have been chosen because they make good reading as well as provoke thought about American history. Faithful attendance and active class participation are required.

Richard M. Abrams earned his undergraduate and graduate degrees from Columbia University and has been a Professor of History at UC Berkeley since 1961. He is Associate Dean of International and Area Studies. His special interests include United States political, legal, business, and foreign affairs history.

**History 39R**  
**Technology and Civilization in China and the West: Explorations in Comparative Cultural History (4 units, LG)**  
**Professor David G. Johnson**  
**Wednesday 2:00-4:00, 180 Barrows Hall, CCN: 39070**  
It is the premise of this seminar that the very different paths of technological development followed by China and the West can best be understood as the result of very different ways of thinking about man and the world. The goal of the seminar is to trace out something of those different paths and to learn more about what those different world-views actually were. Toward this end we will compare specific examples of Chinese and Western achievements in three areas: naval architecture and navigation, which relate directly to the ability of European nations to impose their will on distant places, including China, in the age of imperialism; modern power technology, symbolized by the steam engine; and precision measurement, symbolized by the clock. It will be seen that Chinese attitudes about both power and precision were very different from those of Europeans. After a brief look at medieval European technology and some Chinese analogues, we will consider several recent studies of science and technology in China and Europe. Then we
will turn to Greek and early Chinese philosophy in an attempt to understand the deepest roots of the differences in the two technological traditions. In the final summing-up we will consider both the advantages and disadvantages of China's ritual-centered civilization and our own science-centered one. 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 of Art 39A
Photography as a Fine Art (4 units, LG)
Professor David H. Wright
Friday 1:30-4:30, 308B Doe Library, CCN: not available
This seminar is based on the critical study and discussion of the work of selected master photographers from about 1860 to 1940, from Carleton Watkins to Walker Evans, with nine assignments to try making photographs in their styles. The course is designed for students experienced in practical photography, including darkroom work in black and white. There will be a term paper on a topic developed by each student with the instructor's help. No examination. Registration for this course is by instructor approval only. Enrollment is limited to eight students. An interview is required between August 27, 2004 and September 1, 2004. Further information and an interview sign-up sheet will be posted at that time by the instructor's office, 465 Doe Library Annex. To qualify, students must have darkroom experience and bring samples of their black-and-white photography to the interview.
Professor David H. Wright invented this course some twenty years ago when he realized what he would have liked to take when he was a freshman just after the war; he continues to delight in offering it. Although he completed the requirements in Physics before switching to History of Art, he feels his real college education came as a photographer for the Harvard Crimson.

Integrative Biology 39C
The Field of Veterinary Medicine (2 units, P/NP)
Dr. Helen E. Diggs
Thursday 2:00-4:00, 4110 Valley Life Sciences Building, CCN: 43012
The field of veterinary medicine encompasses a diverse group of careers all connected to professional animal health care. As examples, veterinarians work in the areas of public health, governmental regulatory medicine, teaching and research, private clinical practice, uniformed services, private industry, anthropology, food production, aquaculture, environmental medicine and science, and zoological medicine. Are you interested in a career in veterinary medicine? You should have an inquiring mind, keen powers of observation, and an aptitude and strong interest in the biological sciences. Veterinarians not only enjoy working with a wide variety of animals but must also have excellent interpersonal skills. The goal of this course is to provide the student with a brief history and overview of the field of veterinary medicine and to provide the facts and realities regarding a veterinary career. Students will be expected to actively participate in class discussions, complete reading assignments, take a weekly review quiz, and attend scheduled field trips.
Dr. Helen E. Diggs is the Director of the Office of Laboratory Animal Care. She received her veterinary degrees from Oregon State University and Washington State University and is licensed to practice veterinary medicine in the states of Washington, Oregon and California. She is a Board Certified Specialist in the American College of Laboratory Animal Medicine. Her research interests are in the area of zoonotic diseases and occupational health.

Journalism 39G
Queer Eye for Straight Journalism Guys (1.5 units, P/NP)
Professor William Drummond
Friday 12:30-2:00, 104 North Gate Hall, CCN: 48014
This seminar will examine news media treatment of gays and lesbians from the 1960s to the present day. It will begin with the emergence from the shadows up to the present-day controversy over same-sex marriage. Only students with a keen interest in media and social issues should take this course. The students will be called upon to learn about the historical evolution of gay rights as a topic in the news, and also to analyze thoughtfully contemporary coverage of the topic. This will require a commitment to doing background readings, as well as keeping up with day-to-day coverage in broadcast and print.

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 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 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.

Native American Studies 90
Myth, Memory, and History: Understanding Native America (4 units, LG)
Dr. Diane Pearson
TuTh 11:00-12:30, 210 Wheeler Hall, CCN: 61015
This course provides an overview of the history of the indigenous peoples of the Western Hemisphere, and proceeds from the premise that knowledge of Native America is essential to the study of the Western Hemisphere. It will survey a number of societies, cultures, lifestyles, and contemporary and historical issues. Dr. Pearson holds a Ph.D. in American Indian Studies and specializes in American Indian law and policy, societies and culture, and 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 3:30-5:00 plus presentations, 395 Minor Hall, CCN: 65503
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 (this year in India the harvest was good, but the government states it cannot sustain this level of output, NY Times, April 1, 2004), greatly unmet health needs (for example, the HIV-AIDS epidemic); often inadequate schooling; the caste system, and religion and the family as foci of society; the roles 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. Students will meet at additional agreed upon times to complete presentations during the last two weeks of class. This seminar will meet for five weeks, beginning August 31, 2004. This course is also listed as South and Southeast Asian Studies 39C (CCN: 83112).
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.

Plant and Microbial Biology 39A  
Environmental Microbiology (3 units, LG)  
Professor Steven Lindow  
MWF 1:00-2:00, 110 Barker Hall, CCN: 70809  
Microorganisms surround us and play major roles in everyday life. This course will provide a broad overview of those microorganisms that humans encounter knowingly or unknowingly every day. Emphasis will be on the importance of microbes to daily life. The usefulness of microbes in food and alcoholic beverage production, cleanup of toxic wastes, recovery of oil from below the ground, in making agriculture possible, and many other beneficial applications will be explored. The importance of microbes in processes important to the survival of the world ecosystem, such as their role in global warming, will also be addressed. Harmful microbes such as those that cause food poisoning and human and plant diseases will also be discussed. The role of microbes in biotechnology and careers in the biotechnology industry will also be explored. Lectures will be interspersed with video presentations, short field trips, laboratory demonstrations, and class readings and student discussions.

Steven E. Lindow is a Professor in the Plant and Microbial Biology Department. He earned his B.S. in Botany from Oregon State University in 1973 and his Ph.D. in Plant Pathology from the University of Wisconsin, Madison in 1977. His area of study is in molecular and ecological studies of plant-associated bacteria.

Political Science 39A  
Truth, Lies, and Politics (2 units, LG)  
Professor Norman Jacobson  
Wednesday 2:00-4:00, 749 Barrows Hall, CCN: 72200  
To help us get started thinking about what, philosophically, ethically, and politically, will be at stake for us in the seminar, we will consider the following quotations: "By a lie a man throws away and as it were, annihilates his dignity as a man." - Immanuel Kant; "Circumstances and life are such that we must all sometimes tell a lie: just as we wear trousers because we don't choose that everybody shall see our nakedness." - D. H. Lawrence; "...there is no absurdity, however strange it may sound, in that saying of the ancient Father 'I would not tell a willful lie to save the souls of the whole world.'" - John Wesley; "What harm would it do, if a man told a good strong lie for the sake of the good and for the Christian church...a lie out of necessity, a useful lie, a helpful lie, such lies would not be against God, he would accept them." - Martin Luther; "While the people retain their virtue, and vigilance, no administration, by any extreme of wickedness or folly, can very seriously injure [them]." - Abraham Lincoln; "The great masses of the people...will more easily fall victims to a big lie than to a small one." - Adolf Hitler. Our theme will be the compatibility of truth and politics in three historical periods: the ancient world, the Renaissance; and contemporary life. This course satisfies the Social & Behavioral Sciences breadth requirement in Letters & Science.  
Professor Emeritus Norman Jacobson received his Ph.D. from the University of Wisconsin in 1951 and joined the Political Science Department at UC Berkeley in the same year. He has been a Consulting Professor at Stanford from 1995 to the present. He was named California Professor of the Year in 1988. His areas of interest include political theory, history of ideas (European and American), and literature and politics. Courses he has taught recently include American Political Theory, Modern European Theory, Innocence and Politics, Truth and Politics. He has published books on European and American thought, Renaissance to the present, including Machiavelli, Hobbes, Rousseau, Dostoyevsky, Orwell, Camus, Paine, Thoreau, and Lincoln. He is a co-producer of film and theatre. His most recent publications are "Escape from Alienation," Representations, Fall, 2003; and "'Damn Your Eyes!', Thoreau on (Male) Friendship in America," in D. Batthory and M. Schwartz, Eds., Friends and Citizens (2001).

Political Science 41  
Choosing a President (4 units, LG)  
Professor David Karol
TuTh 9:30-11:00, 749 Barrows Hall, CCN: 72201
This freshman seminar will offer a broad perspective on the nomination and election of U.S. Presidents from the Founding down to the current campaign. It will emphasize changes and continuities in the form and behavior of political parties and in the modes of campaigning. Enrollment is limited to freshmen. This course can satisfy either the Historical Studies or the Social & Behavioral Sciences breadth requirement in Letters and Science.

Academic Assistant Professor David Karol is one of the newest members of the Political Science department. He is a specialist in American Politics with interests in political institutions, parties, interest groups/social movements and American political development. A product of UCLA's Political Science Department, he was a Visiting Scholar at the Center for the Study of Democratic Politics at the Woodrow Wilson School of Public and International Affairs at Princeton University in 2002-2003. David Karol's work has appeared in *International Organization* and *Brookings Review*. He is a co-author (with Marty Cohen, Hans Noel and John Zaller) of *Beating Reform* (forthcoming, University of Chicago Press), a study of the revived role of party establishments in determining presidential nominations in the post-reform era. His current research focuses on how and why political parties and institutions change policy positions. In related work he addresses the question of how the House, Senate and Presidency came to have predictable relative positions on trade policy.

Public Health 39F
Eating and Health Disorders (2 units, LG)
Professor Zak Sabry
Wednesday 2:00-4:00, Location TBA, CCN: 77085
The relationships between eating and health reflect biological, environmental and behavioral issues. This course addresses the many factors associated with eating disorders such as anorexia, bulimia and gluttony, and their impact on health. For the location of this seminar, please revisit this web page in the future. Professor Sabry is concerned with public health issues of food and nutrition. His focus on the assessment of nutritional status and the development of nutrition and health programs covers both national and international perspectives.

Rhetoric 39E
Reading Descartes' *Meditations* (1.5 units, LG)
Professor Marianne Constable
Tuesday 5:00-6:30, 7415 Dwinelle Hall, CCN: 77866
Have you ever wondered about "I think therefore I am"? What does it mean? How does it make sense? What kind of "I" claims this? What kind of argument is it? How does "am" follow from "think"? Would the claim be true of someone other than "I"? In this seminar, we will go back to the horse's mouth, so to speak, and read Descartes' famous claim in context. During the first half of the semester, we will spend roughly one week on each of Descartes' six *Meditations*, and then we will decide as a seminar whether to continue with Descartes as such or whether to reread the *Meditations* in light of the six books of Nietzsche's *Gay Science*. The reading, though light in number of pages, is challenging. Most weeks, students will be asked to write some notes or discussion questions as homework to prepare for discussion about the readings. Students who share both aims of the seminar--to learn something about Descartes and to learn reading skills that can carry over elsewhere--are encouraged to enroll. Attendance the first week is required: if you are enrolled and do not attend during week one, you will probably be dropped; if you are not enrolled and would like to add, please come the first week. Enrollment is limited to eighteen students.

Professor Marianne Constable was an undergraduate at Berkeley in philosophy and political science. Her own scholarship focuses on legal rhetoric. She was recently awarded a prize for Distinguished Undergraduate Research Mentoring.

Rhetoric 39F
Getting Inside the Text: Close Reading and the Art of Rhetoric (2 units, LG)
Professor Daniel F. Melia
Monday 1:00-3:00, 7415 Dwinelle Hall, CCN: 77868
The ultimate textual analysis would involve offering explanation(s) for every word used. While it is usually not an effective use of time to do an analysis that close, understanding complex, thickly constructed and layered
texts often requires very close attention to verbal texture. This is an anti-speed-reading course that will concentrate on some of the essential practical tools of rhetorical interpretation. We will look extremely closely at some interesting literary works, as well as analyzing some non-literary pieces. Readings will include Thomas Pynchon’s *The Crying of Lot 49*, William Faulkner’s *As I Lay Dying*, and Jonathan Swift’s *A Modest Proposal*.

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.

**Slavic Languages and Literatures 39J**  
*Love among the Russians* (2 units, LG)  
Professor Hugh McLean  
MW 3:00-4:00, 209 Dwinelle Hall, CCN: 79845  
This seminar will be devoted to study and discussion of treatments of the love theme by a series of great Russian writers: Pushkin, Gogol, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Readings will be mostly short stories, not long novels. There will be one term paper and no exam. All readings and discussion will be in English, although students who know Russian are encouraged to read in the original.

Hugh McLean is a Professor Emeritus in the Department of Slavic Languages and Literature. He taught a wide range of courses on Russian literature at UC Berkeley from 1968-94. He is author of *Nikolai Leskov: The Man and His Art* and articles on Pushkin, Gogol, Tolstoy, Chekhov, and Mayakovsky.

**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 3:30-5:00 plus presentations, 395 Minor Hall, CCN: 83112  
This course is also listed as Optometry 39B (CCN: 65503). For the course description and presentation information, please see the listing under Optometry 39B.

**South and Southeast Asian Studies 39G**  
"Think Gender" in Indian Short Stories (2 units, LG)  
Kausalya Hart  
Friday 8:00-10:00, 123 Wheeler Hall, CCN: 83115  
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.

**Spanish 39E**  
Spanish-American Short Story in Translation (3 units, LG)  
Professor Estelle Tarica  
TuTh 11:00-12:30, 109 Dwinelle Hall, CCN: 86208  
This lower-division course is designed to introduce students to the rich tradition of Latin American short stories. We will focus on the twentieth century, working our way chronologically through now-classic story collections by authors such as Borges, Cortázar, Rulfo, Lispector, García Márquez and others. We will also read individual stories by authors who have been little translated into English, and delve into work by more recent writers. Texts include Jorge Luis Borges’ *Ficciones*, Celia Correas Zapata’s *Short Stories by Latin American Women*, and others.
American Women: The Magic and the Real, Julio Cortázar's Blow Up and Other Stories, and Rosario Ferré's The Youngest Doll. All readings and discussions will be in English.
Estelle Tarica has been an Assistant Professor in Latin American Literature and Culture at UC, Berkeley since 2000. She received her Ph.D. in Comparative Literature from Cornell University in August 2000 and her B.A. in Spanish from Amherst College in 1990. She teaches a range of classes in modern Latin American literature. Her areas of research currently are modern Spanish-American narrative, with a focus on the Andes and Mexico; Quechua literature and culture; and contemporary writing in the French Caribbean. She is especially interested in discourses of cultural mixing (mestizaje, creolity, heterogeneity) as they are linked to nation-state consolidation, and in the development of mestizo and indigenous textualities.

Women Studies 39F
Seminar Title (Unit Count, LG)
Professor Norma Alarcon
TuTh 12:30-2:00, 170 Barrows Hall, CCN: 89827
For the seminar title, unit count, seminar description and faculty information, please revisit this web page in the future.
Other Small Courses and Courses of Special Interest to Freshmen

- Bioengineering 24, Section 1: Aspects of Bioengineering (1 unit, P/NP)
- Civil Engineering 92: Introduction to Civil and Environmental Engineering (1 unit, P/NP)
- Engineering 92: Engineering Science Seminar: Perspectives in Engineering (1 unit, P/NP)
- English C77: Introduction to Environmental Studies (4 units, LG)
- Environmental Science, Policy, and Management 2: The Biosphere (3 units, LG)
- Environmental Science, Policy, and Management 6: Environmental Biology (3 units, LG)
- Environmental Science, Policy, and Management 11: Forest and Wildland Resource Conservation (4 units, LG)
- Environmental Science, Policy, and Management C12: Introduction to Environmental Studies (4 units, LG)
- Environmental Science, Policy, and Management 50AC: Introduction to Culture and Natural Resource Management (4 units, LG)
- Environmental Science, Policy and Management 60: Environmental Policy, Administration, and Law (4 units, LG)
- German R5A, Section 2 & 3: Reading and Composition (4 units, LG)
- History of Art 35: Art and Architecture in Japan (4 units, LG)
- History of Art 41: Introduction to Greek and Roman Art (4 units, LG)
- Physics 10: Physics for Future Presidents (3 units, LG)
- Plant and Microbial Biology 10: Plants, Agriculture and Society (2 units, LG)
- Political Science 1: Introduction to American Politics (4 units, LG)
- Political Science 2: Introduction to Comparative Politics (4 units, LG)
- Theater, Dance, and Performance Studies 10: Introduction to Acting (3 units, LG)
- Theater, Dance and Performance Studies 26: Issues in World Theatre (4 units, LG)
- Theater, Dance, and Performance Studies 40A, Section 1: Beginning Modern Dance Technique (1 unit, LG)
- Theater, Dance and Performance Studies 60, Section 1: Stagecraft (3 units, LG)
- Undergraduate and Interdisciplinary Studies 20AC: Alternative Sexual Identities and Communities in Contemporary American Society (4 units, LG)
- Women’s Studies 10: Introduction to Women’s Studies (4 units, LG)
- Women’s Studies 20: Introduction to Feminist Theory (4 units, LG)
Bioengineering 24, Section 1
Aspects of Bioengineering (1 unit, P/NP)
Professor Dorian Liepmann
Wednesday 4:00-5:00, 100 Lewis Hall, 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.
Dorian Liepmann is an Associate Professor in Mechanical Engineering. His research interests include classical fluid mechanics, free surface flows, biofluid dynamics, modeling closed ecosystems and cardiology. For more information regarding Professor Liepmann, visit his faculty web page at http://www.me.berkeley.edu/faculty/liepmann/index.html.

Civil Engineering 92
Introduction to Civil and Environmental Engineering (1 unit, P/NP)
Professor Iris D. Tommelein
Wednesday 12:00-1:00, 60 Evans Hall, 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.
Iris D. Tommelein is a Professor in the Department of Civil and Environmental Engineering. Her research interests include Lean construction, e-commerce, supply-chain management, materials management, and construction processes. For more information regarding Professor Tommelein, visit her faculty web page at http://www.ce.berkeley.edu/faculty/faculty_details.php?n=tommelein.

Engineering 92
Engineering Science Seminar: Perspectives in Engineering (1 unit, P/NP)
Professor David Dornfeld
Monday 4:00-5:00, Sibley Auditorium in the Bechtel Building, CCN: 28065
This series of lectures provides Engineering Science students with information on the various Engineering disciplines. It will be especially useful in guiding Engineering-Undeclared students toward their choice of major. Lecturers will describe current activities in their own field, talk about how they have made their career choices, and will indicate future opportunities. In addition to the traditional engineering disciplines, emerging fields will also be covered. The course is strongly recommended for all Engineering Science students and is required for Engineering-Undeclared students. It is to be taken in the fall semester of the freshman year.
This course was formerly titled “Careers in Engineering Science.” David Dornfeld is a Professor of Mechanical Engineering and the Will C. Hall Family Chair in Engineering. For more information regarding Professor Dornfeld, visit his faculty web page at http://www.me.berkeley.edu/faculty/dornfeld/index.html.

English C77
Introduction to Environmental Studies (4 units, LG)
Professors Robert Hass and Garrison Sposito
TuTh 12:30-2:00 plus discussion sections, 105 North Gate Hall, CCN: 28565
This is an innovative team-taught course that surveys global environmental issues at the beginning of the twenty-first century and that introduces students to the basic intellectual tools of environmental science and
to the history of environmental thought in American poetry, fiction, and the nature writing tradition. Professor Garrison Sposito is a scientist specializing in the behavior of soils and ecosystems; Professor Robert Hass is a poet. The aim of the course is to examine the ways in which the common tools of scientific and literary analysis, of scientific method and imaginative thinking, can clarify what is at stake in environmental issues and environmental citizenship. This course is also listed as Environmental Science, Policy, and Management C12 (CCN: 30430).

Robert Hass is a poet and Professor in the Department of English. Garrison Sposito is a Professor of Environmental Science and Director of the Kearny Foundation of Soil Science.

Environmental Science, Policy, and Management 2
The Biosphere (3 units, LG)
Professors Jillian F. Banfield and Andrew Paul Gutierrez
TuTh 9:30-11:00 plus discussion sections,
101 Life Science Addition, CCN: 30403
This course is an introduction to the unifying principles and fundamental concepts underlying our scientific understanding of the biosphere. Topics will include the physical life support system on Earth; nutrient cycles and factors regulating the chemical composition of water, air, and soil; the architecture and physiology of life; population biology and community ecology; human dependence on the biosphere; and the magnitude and consequences of human interventions in the biosphere.
Jillian F. Banfield is a Professor in the Division of Ecosystem Sciences in the College of Natural Resources.
For more information about Professor Banfield, visit her web page at http://espm.berkeley.edu/directory/fac/banfield_j.html.
Andrew Paul Gutierrez is a Professor in the Division of Ecosystem Sciences in the College of Natural Resources. For more information about Professor Gutierrez, visit his web page at http://espm.berkeley.edu/directory/fac/gutierrez_a.html.

Environmental Science, Policy, and Management 6
Environmental Biology (3 units, LG)
Professor Ignacio Chapela
TuTh 8:00-9:30, 141 McCone Hall, CCN: 30418
In this course, basic biological and ecological principles will be discussed in relation to the current environmental crisis. Human interactions with the environment and their impact on the non-human world will be explored from a biological perspective. Students will develop a biologically-based method to pose questions, understand problems, and formulate strategies for their solution.
Professor Ignacio H. Chapela researches and teaches about symbiotic relationships of microorganisms. His work aims at understanding the finely balanced relationships between organisms, including humans, in the ecosystem, which he understands as woven together by microorganisms. He has also been involved in the growing debate over our relationship with genetic resources, their appropriation and conservation. As new biotechnological methods find their way into the open environment, Professor Chapela's interests continue to grow in the understanding of human manipulations of the genetic make-up of the biosphere and their impact on the functioning of ecosystems. Professor Chapela has worked on these questions with industry, academia, indigenous communities and policy makers at the local, regional, national and international levels.

Environmental Science, Policy, and Management 11
Forest and Wildland Resource Conservation (4 units, LG)
Professor Sally K. Fairfax
MWF 12:00-1:00 plus discussion sections, 159 Mulford Hall, CCN: 30421
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.
Sally Fairfax is a Professor in the Division of Society & Environment in the College of Natural Resources. She is the Henry J. Vaux Distinguished Professor of Forest Policy. For more information regarding Professor Fairfax, visit her faculty web page at http://espm.berkeley.edu/directory/fac/fairfax_s.html.
Environmental Science, Policy, and Management C12
Introduction to Environmental Studies (4 units, LG)
Professors Robert Hass and Garrison Sposito
TuTh 12:30-2:00 plus discussion sections, 105 North Gate Hall, CCN: 30430
This course is also listed as English C77 (CCN: 28565). For a course description and faculty bios, please see the listing for English C77.

Environmental Science, Policy, and Management 50AC
Introduction to Culture and Natural Resource Management (4 units, LG)
Professor Sally K. Fairfax
MWF 11:00-12:00 plus discussion sections, 50 Birge Hall, CCN: 30463
This course is an introduction to how culture affects the way we use and manage fire, wildland and urban forests, rangelands, parks and preserves, and croplands in America. The basic concepts and tools for evaluating the role of culture in resource use and management are introduced and used to examine the experience of American cultural groups in the development and management of western natural resources.
Satisfies the American cultures requirement.
Sally Fairfax is a Professor in the Division of Society & Environment in the College of Natural Resources.
She is the Henry J. Vaux Distinguished Professor of Forest Policy. For more information regarding Professor Fairfax, visit her faculty web page at http://espm.berkeley.edu/directory/fac/fairfax_s.html.

Environmental Science, Policy and Management 60
Environmental Policy, Administration, and Law (4 units, LG)
Professor Sally Fairfax
TuTh 2:00-3:30 plus discussion sections, 240 Mulford Hall, CCN: 30487
This course is an introduction to the United States' environmental policy process and focuses on the history and evolution of political institutions, importance of property, federal and state roles in decision making, and challenges of environmental policy. Emphasis is on the use of science in decision-making, choices between regulations and incentives, and the role of bureaucracy in resource policy. Case studies on natural resource management, risk management, environmental regulation, and environmental justice will be discussed.
Sally Fairfax is a Professor in the Division of Society & Environment in the College of Natural Resources.
She is the Henry J. Vaux Distinguished Professor of Forest Policy. For more information regarding Professor Fairfax, visit her faculty web page at http://espm.berkeley.edu/directory/fac/fairfax_s.html.

German R5A, Section 2 & 3
Reading and Composition (4 units, LG)
The Staff
Section 2: TuTh 9:30-11:00, 263 Dwinelle Hall, CCN: 37457
Section 3: TuTh 12:30-2:00, 263 Dwinelle Hall, CCN: 37460
Readings and discussions will be in English. This course fulfills the first half of the University’s Reading and Composition Requirement. For course topics, please visit the Department of German’s website at http://german.berkeley.edu or contact the German Department at 642-7445 or germanic@socrates.berkeley.edu.

History of Art 35
Art and Architecture in Japan (4 units, LG)
Professor Gregory P. Levine
TuTh 3:30-5:00 plus discussion sections, 101 Moffitt Library, CCN: 05518
This course is an introduction to art and architecture in Japan and is intended for newcomers to the history of art and/or to the study of Japanese history and culture. Lectures will proceed chronologically, beginning with the archaeological objects and tumuli of neolithic Japan and ending with the popular graphic arts of the seventeenth to nineteenth centuries and modern transformations of art. The course will foreground themes such as the formats and materials of Japanese art and architecture; the social identity of artists in Japan and workshop production; the development and transmission of pictorial style; the re-use of (or rupture from) the visual past to promote ideological and cultural claims; elite patronage and commoner consumption; gender
and representation; the creation of religious images and spaces; the impact of foreign art in Japan; and the creation of a "Japanese" tradition.

Gregory Levine is an Assistant Professor in the Department of History of Art. He specializes in Japanese art and architecture, particularly the subtemples of Zen Buddhist monasteries. He received his doctorate in Japanese Art from Princeton University.

**History of Art 41**
**Introduction to Greek and Roman Art (4 units, LG)**
**Professor Andrew Stewart**
**TuTh 9:30-11:00 plus discussion sections, 101 Moffitt Library, CCN: 05533**
This introduction to the arts of ancient Greece and Rome is designed for newcomers to the history of art and/or to the study of ancient Mediterranean culture. The lectures will survey 1500 years of Greek and Roman art and architecture both thematically and chronologically. They will begin with the story of the rediscovery of antiquity from the Renaissance to the present, and then will focus upon key topics such as art and religion, art and power, city and sanctuary, death and commemoration, the symposium, nudity and the body, art collecting, and center and periphery. Participants will learn to acquire the perceptual, historical, and critical skills necessary to analyze, understand, and interpret the artworks in their historical and social/political contexts. Wherever possible, new discoveries will be illustrated and discussed.

Andrew Stewart is Professor of Ancient Mediterranean Art and Archaeology in the Departments of History of Art and Classics. He specializes in Greek art and archaeology, and excavates at the Israelite, Phoenician, Greek, and Roman harbor site of Dor in Israel.

**Physics 10**
**Physics for Future Presidents (3 units, LG)**
**Professor Richard Muller**
**TuTh 11:00-12:30 plus discussion sections, 4 LeConte Hall, CCN: 69859**
Interested in taking a physics course that gets quickly to the most interesting and important material, while de-emphasizing 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 10**
**Plants, Agriculture and Society (2 units, LG)**
**Professor Brian Staskawicz**
**TuTh 11:00-12:00, 101 Barker Hall, CCN: 70803**
This course will focus on changing patterns of agriculture in relation to population growth, the biology and social impact of plant disease, genetic engineering of plants: a thousand years of crop improvement and modern biotechnology, interactions between plants and the environment, and effects of human industrial and agricultural activity on plant ecosystems. Knowledge of the physical sciences is neither required nor assumed. This course should be particularly appealing to students who are interested in learning about plants, agriculture, and genetic engineering in a social and economic context. The course has no prerequisites, and can be used to satisfy L&S breadth in either Biological Sciences or Social and Behavioral sciences.

Brian Staskawicz is the Chair of the Department of Plant and Microbial Biology and has been a faculty member at UC Berkeley for the past seventeen years. His research involves understanding the molecular basis of how plants resist pathogen attack. His research has led to the cloning of plant disease resistance genes and the genetic engineering of agricultural crops for disease resistance as an alternative to pesticide applications. He was elected a member of the National Academy of Sciences in 1998 in recognition of his research achievements.
Political Science 1
Introduction to American Politics (4 units, LG)
Professor Jack Citrin
TuTh 11:00-12:30 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 Robert Price
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 ten-page 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 10
Introduction to Acting (3 units, LG)
Martin Berman
Graduate Student Instructors will be assigned to teach each studio section.
Studio 1: MWF 9:00-11:00, B45X Dwinelle Hall, CCN: not available
Studio 2: MWF 10:00-12:00, 317 Zellerbach Hall, CCN: not available
Studio 3: MWF 12:00-2:00, 317 Zellerbach Hall, CCN: not available
Studio 4: MWF 1:00-3:00, 413 Zellerbach Hall, CCN: not available
This course is a gateway class to the more advanced acting sequence. It is a theory and performance course, which provides an overview of the actor's creative process. Fundamental acting techniques are presented in conjunction with exercises, improvisation, and text work designed to enhance concentration, imagination, vocal resonance and projection as well as self-confidence and communication skills. An audition is required; a course control number will be provided after audition. For audition information, look under Theater, Dance, and Performance Studies in the Schedule of Classes for Fall 2004.
Issues in World Theatre (4 units, LG)
Professor Sudipto Chatterjee and Graduate Student Instructor Kristina Hagstrom
TuTh 9:30-11:00, 156 Dwinelle Hall, CCN: 88036
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 40A, Section 1
Beginning Modern Dance Technique (1 unit, LG)
Carol Murota
MTWTF 9:30-11:00, 2401 Bancroft Way, CCN: 88039
This course includes basic explorations in movement emphasizing increased flexibility, strength, alignment, coordination, and muscular endurance.
Ms. Carol Murota is a lecturer, SOE. She teaches Modern Dance, Sources of Movement, Dance Analysis and Choreography. She is a former artistic director of the Bay Area Repertory Dance, dance jury chair for National Educational Film and Video Festival, and policy board member of the California Arts Project. Her recent choreography includes "Woman Warrior" for Berkeley Repertory Theatre. Her recent UC Berkeley choreography includes "In the Bottom of My Heart," "A Still Small Voice," and "Celestial Debris." Ms. Murota received the Bay Area Drama Critics Award for choreography.

Theater, Dance and Performance Studies 60, Section 1
Stagecraft (3 units, LG)
Chris Killion
MW 12:00-1:00, Zellerbach Playhouse, CCN: 88060
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 20AC
Alternative Sexual Identities and Communities in Contemporary American Society (4 units, LG)
Professor Dawne Moon
MW 4:00-5:30 plus discussion sections, 50 Birge Hall, CCN: 89024
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.

Women’s Studies 10
Introduction to Women’s Studies (4 units, LG)
Professor Charis Thompson
MW 10:00-12:00 plus discussions sections, 105 North Gate Hall,
CCN: 89803
This course is an introduction to the interdisciplinary field of women's studies that explores the situations of women in modern life in the United States and internationally. The course draws on materials from literature, the arts, social sciences and science and examines women across differences of race, ethnicity, nation, age, sexuality, religion, and class. No prior knowledge of the field of women's studies is required.
Charis Thompson is an Associate Professor in Women’s Studies and Sociology. Her area of interest is gender and science. For more information regarding the instructor, visit her faculty web page at http://womensstudies.berkeley.edu/thompson.html.
Women's Studies 20
Introduction to Feminist Theory (4 units, LG)
Professor Leigh Gilmore
TuTh 2:00-3:30 plus discussion sections, 130 Wheeler Hall, CCN: 89818
This course is an introduction to feminist theories from the eighteenth and nineteenth centuries to contemporary times. The development of feminist theories is treated in relation to pertinent social, political, and cultural theories.
Leigh Gilmore is a Visiting Professor of Women's Studies. Her area of interest is feminist cultural studies: women's self-representation, privacy and the public sphere.