



SPRING 2006

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**Freshman and Sophomore Seminars
University of California, Berkeley
301 Campbell Hall
Berkeley, CA 94720-2922**

Freshman & Sophomore Seminars at Berkeley

UC Berkeley's Freshman and Sophomore Seminars provide an unparalleled opportunity for faculty members and small groups of lower-division students to explore a scholarly topic of mutual interest together, in the spirit of learning for its own sake. By taking a seminar a student becomes an active member of Berkeley's intellectual community. The seminars depend on the regular presence and active participation of every student. Sharing ideas in class is an important academic skill that can be acquired only through practice. The vigorous discussions that characterize the most successful seminars depend on the commitment of each and every member of the class. Students are encouraged to choose their seminars based on the pull of intellectual curiosity, a desire to explore enticing and even unfamiliar realms.

Please visit the Freshman & Sophomore Seminar website at <http://fss.berkeley.edu> for the following:

- Updates to the seminar lists included in this document on easy-to-follow web pages
- Revisions to this document
- Pop-up menus to help students find seminars of interest based on seminar topics
- Information regarding the Food for Thought Seminar series, a wonderful way for faculty and students to get better acquainted in an informal setting before or after class
- Success, Seminars, and You – a web page full of good ideas and helpful links to support students in registering for a seminar and getting the most out of their seminars before, during and after taking a seminar

L&S Discovery Courses

The seven-course breadth requirement can be an unparalleled opportunity to explore fascinating worlds of knowledge. The Letters & Science Discovery Courses will take the guesswork out of satisfying the breadth requirement. Taught by some of the most distinguished faculty on campus and deliberately designed to engage and ignite the minds of non-experts, these courses are destined to be unforgettable. For details on the Discovery Courses planned for the upcoming semester, see <http://lsdiscovery.berkeley.edu>.

This document was last updated on April 20, 2006.

FRESHMAN SEMINARS

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

Chemical Engineering 24, Section I
The Hydrogen Economy (1 unit, P/NP)
Professor Jeffrey Reimer
Monday 4:00-5:00, 109 Gilman Hall, CCN: 10402

Considerable attention has been focused recently on the development and use of hydrogen as the primary fuel for our energy economy. This attention has its lure: hydrogen as H₂ is a simple chemical, is based on the most abundant element in the Universe, and is readily available as water all over the planet. Generation, transportation, storage, and use of H₂ are fraught with problems, and scientists and engineers around the planet are scoffing at the whole notion. How quickly can we make a hydrogen economy happen? Join this seminar and engage in a series of readings and discussions about our energy budget, the problem with carbon, and the myriad of technical challenges that, according to some, condemn the hydrogen economy to forevermore be a dream of the future.

Jeffrey A. Reimer is a Professor of Chemical Engineering at the University of California, Berkeley and Associate Dean in the UC Berkeley Graduate Division. In 1998 he won the Donald Sterling Noyce Prize for Excellence in Undergraduate Teaching in the Physical Sciences, and was given the AIChE Northern California Section Award for Chemical Engineering Excellence in Academic Teaching. In 2000 he was awarded the Chemical Engineering Departmental Outstanding Teaching Award. Professor Reimer was awarded the campus' Distinguished Teaching Award in 2003. The goal of Professor Reimer's research is to provide a scientific basis for the systematic design of new materials and devices for technological development, with particular attention to those technologies aimed at environmental protection. His group consists of experimentalists that use many different tools for their research, yet retain special expertise and interest in magnetic resonance (MR) spectroscopy and imaging methods. For more information regarding Professor Reimer, please visit his faculty web page at <http://india.cchem.berkeley.edu/~reimer/>.

Chicano Studies 24, Section I
Chicano Civil Rights Movement (1 unit, P/NP)
Professor Carlos Munoz Jr.
Monday 10:00-11:00, 140 Barrows Hall, CCN: 13003

The seminar will consist of examining the multifaceted dimensions of the 1960s Chicano Civil Rights Movement via documentary films.

Professor Carlos Muñoz, Jr. is a Professor Emeritus in the Department of Ethnic Studies. He is the award-winning author of *Youth, Identity, Power: The Chicano Movement*, and is working on a book on the topic of the seminar.

Earth and Planetary Sciences 24, Section I
Earthquakes and Water (1 unit, P/NP)
Professor Michael Manga
Wednesday 2:00-4:00, 401 McCone Hall, CCN: 19008

Earthquakes interact with water below the surface of the Earth. Ground shaking caused by earthquakes can make soil flow like a liquid, increase the amount of water flowing in streams, and create new springs. The presence of water in the Earth's crust helps lubricate faults and makes it easier to trigger an earthquake. This seminar will use a

combination of lab experiments, field trips and reading to explore the interactions between water and earthquakes. We will see how understanding connections between two very different fields (seismology, the study of earthquakes, and hydrology, the study of water) allows us to obtain new insights about each field.

Michael Manga is an Associate Professor of Earth and Planetary Science. His areas of expertise include planetary science, fluid mechanics, hydrology, geodynamics, and physical volcanology. For more information regarding Professor Manga, please visit his faculty webpage at <http://seismo.berkeley.edu/~manga/rsch.html>.

Education 24, Section I
Hot Topics in Higher Education (1 unit, LG)
Ms. Ellen Switkes
Wednesday 3:00-5:00, 4635 Tolman Hall, CCN: 23517

This seminar will meet the first eight weeks of the semester. The instructor will hold office hours after class.

This seminar will focus on current topics of interest in higher education such as admissions, financial aid, athletics, effective teaching and learning, student speech codes and academic freedom, crime on campus, and high-school-to-college transition in a university setting. Student-selected topics may also be included.

Ellen Switkes is Assistant Vice President in the University of California Office of the President. She has responsibility for academic personnel, including compensation and diversity policies, on all UC campuses.

Engineering 24, Section I
Time, Money, and Love in the Age of Technology (1 unit, P/NP)
Lecturer Americ Azevedo
Monday 1:00-2:00, 237 Cory Hall, CCN: 27621

Many people in technological societies complain of "time poverty." What are the real relationships between time, money, and love in our lives? Where is love in a world dominated by the technological paradigm? Is there a balance to be found? Does technology make us happy? What is the good life? How can we cultivate peace of mind in a world of rapid change? These and other fundamental questions will be at the heart of a semester-long Socratic dialogue. **This course is for engineering, business, and liberal arts students.**

Americ Azevedo blends thirty-five years in the information technology world with spiritual studies and practices, resulting in a vision of simple wisdom in a complex world. He is Founding Director of the Collaborative Intelligence Laboratory (CI Lab) at the University of California, Berkeley. He has taught "Spirituality and Leadership" for the Master's Program in Leadership at St. Mary's College of California; philosophy and religion at San Francisco State University and Dominican University of California; information systems, leadership, management and finance at Golden Gate University, University of San Francisco, and John F. Kennedy University. His consulting career includes work as an acting CEO during technology company reorganizations, development of e-learning systems for universities and companies, database management, web site development, and contractor management services. He is co-founder and architect of the CyberCampus at Golden Gate University (now serving over 2000 students and 90 faculty per semester) and holds degrees in Philosophy from University of California, Irvine and San Francisco State University. For more information regarding Americ Azevedo, see his website at <http://socrates.berkeley.edu/~americ/>.

English 24, Section I
Growing Up Chicano (1 unit, P/NP)
Professor Genaro Padilla
Wednesday 4:00-5:00, 205 Wheeler Hall, CCN: 28075

We will read a small group of narratives about growing up Chicano/Latino. 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 other material I will either copy or order before the term opens. 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, "Real Women Have Curves" and possibly "Mi Familia" directed by Gregory Nava.

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 Student Affairs.

English 24, Section 2

The Essays of Virginia Woolf (1 unit, P/NP)

Professor Katherine Snyder

Wednesday 2:00-3:00, 224 Wheeler Hall, CCN: 28078

In addition to the novels for which she is most famous, Virginia Woolf produced a voluminous body of short prose, with more than 500 essays and reviews on a dazzling array of topics including, but far from limited to, peace and war, consciousness and selfhood, modernity and urban experience, national and class identity, Shakespeare and women writers. In this class, we will take the opportunity to read slowly and with close attention to stylistic and rhetorical detail some of Woolf's most brilliant and influential essays, in order to understand more not only about the author's own views and experiences, but also about how she crafted her luminous and compelling prose. Assigned work will include informal written responses to the readings and in-class presentations of selected passages, and will culminate with an attempt at a short essay of your own, with revisions guided by a peer-group writing workshop.

Katherine Snyder is an Associate Professor in the English Department and, as of fall 2006, will serve as Director of the College Writing Programs. Her research interests encompass nineteenth- and twentieth-century British and American literature, the novel and the essay, the history of masculinity, and the city and the rise of literary modernism.

English 24, Section 3

Joyce's Dubliners in Joyce's Dubliners (1 unit, P/NP)

Professor Robert Tracy

Monday 3:30-5:30, Room L20, Unit Two at 2650 Haste Street, CCN: 28080

This seminar will meet for eight weeks, beginning September 11, 2006 and ending October 30, 2006.

James Joyce's *Dubliners* (1914) is a collection of short stories about the inhabitants of his native city. Joyce helps invent the modern short story as he tries to evoke the mood or atmosphere 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. His characters are protagonists of their own dramas, but at the same time are shaped by their environment and so part of the larger Dublin story.

Text: James Joyce, *Dubliners* (Penguin paperback)

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 *The Unappeasable Host: Studies in Irish Identities* was published in Dublin in July 1998.

English 24, Section 4

The Arts at Berkeley (1 unit, P/NP)

Professor Charles Altieri

Wednesday 11:00-12:00, 300 Wheeler Hall, CCN: 28804

The goal of the course is to help students to feel confident in talking about the arts and to take pleasure in that confidence, as well as to feel at home in the various venues that exhibit art and performance at Berkeley. We will discuss how best to look at and interpret works of visual arts exhibited at the Berkeley Art Museum; we will attend dance and theater events at Cal Performances, and we may include something in the city. For all events on campus we usually can give students 75% off standard admission prices. Students will be expected to produce one-page reviews of some aspect of performances and they will lead the class in discussing some work of visual art.

Students interested in a variety of arts are encouraged to enroll in this seminar.

Charles Altieri is a Professor of English who specializes in twentieth-century American literature and literature and the visual arts. He is also former director of the Consortium for the Arts on campus, a unit devoted to developing conversations among the arts.

English 24, Section 5

Two Novels by Jane Austen (1 unit, P/NP)

Professor Morton D. Paley

Tuesday 3:30-5:30, 305 Wheeler Hall, CCN: 28807

This seminar will meet for eight weeks, beginning August 29, 2006 and ending October 24, 2006. There will be no meeting on September 19.

This seminar is meant to be an interesting and pleasant introduction to the study of a great novelist: Jane Austen. We'll read and discuss two novels: *Pride and Prejudice* and *Northanger Abbey*. We'll approach the novels from a number of different perspectives, including (but not limited to) the roles of class and gender, Austen's language, plot structure, "point of view," the thematization of moral concerns, and the interplay of her fiction and the history of her time. We'll also discuss various critical approaches to these two works.

Your responsibilities will be 1) to attend regularly, bringing with you the assigned texts (see the note about the specific editions, below); 2) to participate in discussion; 3) to make a 15-minute (not longer) presentation; and 4) to write a short essay (about 1500 words, 7-8 double-spaced pages) on a subject of your own choice, due at the last seminar meeting. I'll be glad to read rough drafts of your essays in advance.

At our first meeting we'll consider a number of possible presentation subjects for you to choose from, and of course you may also suggest your own. Each of you will have a meeting with me during my office hours to help prepare for this. Some of you may wish to collaborate on presentations. In the latter part of the term, conferences on choosing an essay topic will be encouraged.

I'll begin by providing an introduction to the early Austen, using some passages from her early prose works, and we'll talk about *Pride and Prejudice*. Please bring your copy of the Oxford World's Classics edition and be prepared to discuss the first 100 or so pages.

Book List: Because we'll be examining a number of passages closely each time, going quickly from passage to passage, we'll need to locate these quickly by page number. For that reason it's important that everyone have the same text of the two novels. I have chosen two paperback editions that are well-edited and easily available: *Pride and Prejudice* and *Northanger Abbey* (both Oxford World's Classics editions).

Morton D. Paley studies the literature and art of the Romantic period. His most recent books are "The Traveller in the Evening: The Last Works of William Blake," "Portraits of Coleridge," "Apocalypse and Millennium in English Romantic Poetry," and "Coleridge's Later Poetry."

**Environmental Science, Policy, and Management 24, Section I
Issues in Natural Resource Conservation (I unit, P/NP)**

Professor David Wood

Friday 9:00-10:00, 106 Mulford Hall, CCN: 29136

There is one optional field trip to a Bay Area location on a Saturday from 8:00 am to 3:00 p.m. to be arranged.

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

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

**Environmental Sciences 24, Section I
Sustainability: The Future is Now (I unit, P/NP)**

Professor William Berry

Wednesday 4:00-5:00, 55A McCone Hall, CCN: 30427

This seminar includes a review of issues involved in sustainability of our resources and environment. Topics to be discussed include green buildings-sustainable architecture, the energy-transportation-air-quality-health connections, managing our wastes, uses and abuses of our water, and impacts of farming and marketing practices on our food and on enhancing use of organics.

Professor Berry teaches a number of courses in basic environmental science and has both research and teaching programs in impacts of climate change on environmental changes and on biodiversity. He directs an internship program in which students assist Bay Area environmental science teachers.

**Geography 24, Section I
Exploring American Cities (I unit, P/NP)**

Professor Paul Groth

Tuesday 3:30-6:00, 135 McCone Hall, CCN: 36472

This seminar will meet for the first eight weeks of the semester, beginning Tuesday, August 29, 2006, and ending October 17, 2006.

The visual and spatial artifacts of cities—their buildings, lots, streets, signs, front yards, even graffiti—provide 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. A few longer trips will mean we get back to campus late, about 6:30 PM. Course requirements include brief readings and participating in on-site discussions. Course costs include the reader (about \$25) and about \$20 in BART tickets. **This is a general interest course, for students from any major. The two requirements are curiosity about American cities, and a willingness to get back to campus a bit late after the San Francisco trips.**

Paul Groth is a Professor in geography, architecture, 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.

German 24, Section 1
Friedrich Nietzsche's Beyond Good and Evil (1 unit, P/NP)
Professor Robert Holub
Monday 4:00-5:00, 242 Dwinelle Hall, CCN: 37475

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 of 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.

German 24, Section 2
Language and Identity (1 unit, P/NP)
Professor Claire Kramsch
Tuesday 3:00-4:00, 123 Dwinelle Hall, CCN: 37478

This seminar will examine the works of authors for whom the questions of language and cultural identity have played a key role in the development of their distinctive voices. We will read two literary autobiographies of authors who write in a language that is not their native language: Elias Canetti's *The Tongue Set Free* (Bulgarian writing in German) and Eva Hoffman's *Lost in Translation* (Pole writing in English) and one autobiography by American teacher of French Alice Kaplan writing in English: *French Lessons*. We will also read selections from such bilingual authors as J.P. Sartre, N. Sarraute, Jacques Derrida, Shirley Geok-lin Lim, A. Kilito, and Nancy Huston, who view language as an act of identity and writing as giving voice to that identity. Through close textual analysis, we will examine the writer's use of language within the text, placing that analysis within the social, political, and cultural forces that have shaped the author's linguistic choices. Students will write their own autobiographical narratives, using English or languages other than English, or a combination of their native and non-native languages. **All readings will be in English, or English translation.**

Claire Kramsch is Professor of German and Affiliate Professor of Education. She teaches undergraduate and graduate courses on discourse analysis, second language acquisition, sociolinguistics and discourse stylistics. Professor Kramsch is currently writing a book on the multilingual subject.

History 24, Section I**The Creation, Operation, and Dismantling of Apartheid in South Africa (1 unit, P/NP)****Professor Tabitha Kanogo****Tuesday 2:00-4:00, 2303 Dwinelle Hall, CCN: 39219**

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.

Tabitha Kanogo teaches courses on precolonial, colonial and special topics in African history. She wrote *Squatters and the Roots of Mau Mau, 1905-1963* and *African Womanhood in Colonial Kenya, 1900-1950*. Her current research project is broadly entitled "Endangered Childhood in Kenya: A Historical Perspective."

History of Art 24, Section I**Looking at Berkeley Buildings (1 unit, P/NP)****Professor David Wright****Wednesday 2:00-4:00, 425 Doe Library, CCN: 05445**

Attendance at the first seminar meeting is necessary. This seminar will end on Wednesday, November 15, 2006 to leave students free for their work in other courses.

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. This seminar may be used to satisfy the none and Arts and Literature requirements in Letters and Science.

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.

Integrative Biology 24, Section I**Animal and Human Navigation: Which Way Is Home? (1 unit, LG)****Professor Roy Caldwell****Monday 3:00-4:00, 5192 Valley Life Sciences Building, CCN: 43003**

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.

This seminar is designed for students with a general interest in animal biology and more specifically animal behavior. Registration for this seminar is by instructor approval only. Interested students should put their names on the waitlist and then attend the first class meeting.

Roy Caldwell is a Professor of Integrative Biology with a background in insect migration and marine invertebrate animal behavior.

Integrative Biology 24, Section 2

Dinosaur Biology: An Introduction to Research (1 unit, LG)

Professor Kevin Padian

Wednesday 12:00-1:00, 5192 Valley Life Sciences Building, CCN: 43006

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.

Integrative Biology 24, Section 3

The Stone Age (1 unit, P/NP)

Professor Tim White

Wednesday 3:00-5:00, 18 Hearst Gym, CCN: 43009

This seminar will meet the first eight weeks of the semester.

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. **Enrollment is limited to first-semester freshmen.**

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 Human Evolution Research Center and is the Curator of Biological Anthropology in the Hearst Museum of Anthropology.

Linguistics 24, Section 1

Language and Politics in Southern Africa (1 unit, P/NP)

Professor Sam Mchombo

Wednesday 10:00-11:00, 205 Wheeler Hall, CCN: 52278

Food for Thought dining arrangements will be discussed in class.

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; language use and democratic practice and human rights; the impact of AIDS on economic development and linguistic ecology; prospects of mother-education, and the use of African languages in science and technology. 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. **This seminar is part of the Food for Thought Seminar Series.**

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* (1993), *The syntax of Chichewa* (Cambridge University Press, 2004), 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*, "Religion and Politics in Malawi" in *Issues in Political Discourse Analysis* (2005), and "Sports and Development in Malawi" in *Soccer and Society* Vol. 7 No. 2-3, 2006. He has delivered invited lectures and conference presentations in Hong Kong, Europe, Mexico, and in Africa. In Spring 2003, he was appointed Distinguished African Scholar by the Institute for African Development at Cornell University.

Mass Communications 84, Section I
The Disappearance of Information (1 unit, LG)
Professor Thomas Leonard
Monday 3:30-5:00, 247 Evans Hall, CCN: 53317

Today, on the Berkeley campus, more than \$100 million is being invested to restore the Bancroft Library, centered on California collections, and to build the Starr East Asian Library. Societies have been building libraries since ancient times, but it is remarkable that this work continues in a digital age. Do we need more space when so much information can be delivered to a computer screen? All of the ancient libraries, both buildings and collections, crumbled. Should we put more faith in modern libraries?

We will tackle these questions through background reading on how libraries evolved around the world and by questioning the professionals on the Berkeley campus who are building Bancroft and Starr. Architects, project managers, and librarians will be our guests and we will go on site with hard hats to see the two libraries take shape. You will see the drawings for both buildings and come to understand the functional and social objectives that guide the project.

While this seminar is about the built environment of your own school, it opens up wider public questions. How do we provide access to knowledge? Should we address individuals or groups? Is private giving consistent with public purpose?

Your reflections on these matters will be the only written assignment: a paper of about eight pages. It can be in the form of a journal, tracking your reactions each week. Or, you may sum up what seems most important at the end of the semester. Either way, you will be sure to give concrete examples from the material we covered. This writing is due Monday, December 11, 2006 (one week after the last class).

Assigned reading: Library: An Unquiet History by Matthew Battles

Enrollment is limited to ten students.

Professor Thomas 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.

Materials Science and Engineering 24, Section I

Materials in Music (1 unit, P/NP)

Professor Ronald Gronsky

Monday 2:00-4:00, 128 Hearst Memorial Mining Building, CCN: 53403

The lab will also be available from 4:00-5:00 in case students wish to stay after class to use the equipment, play music, etc.

Is a rosewood fretboard any better than a maple one? Why does the same brass cymbal go from "crash" to "clunk" when aged? Can the tonal range of magnetic pick-ups be enhanced in single-coil, humbucking, or triple-wound configurations? Does it really matter if those strings are nickel wrapped? Is platinum better? The answer to these questions lies in the microstructure of materials, as illustrated in this hands-on seminar for musicians, poets, or engineers. We will establish the relationship between the acoustical signatures of various materials used in music and their microstructures, to show how performance (tone) can be optimized through microstructural manipulation.

Professor Gronsky holds the Arthur C. and Phyllis G. Oppenheimer Chair in Advanced Materials Analysis in the College of Engineering and is a recipient (2001) of the Distinguished Teaching Award. He currently conducts research on the fundamental relationship between the atomic structure and properties of materials used in nanotechnology and biomedical applications.

Mathematics 24, Section I

What is Happening in Math and Science? (1 unit, P/NP)

Professor Jenny Harrison

Friday 3:00-4:00, 891 Evans Hall, CCN: 54484

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 I

Art and Science on Wheels (1 unit, P/NP)

Professor Benson Tongue

Wednesday 1:00-2:00, 3106 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 twelve 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 and Dynamics: Analysis and Design of Systems in Motion.

**Mechanical Engineering 24, Section 2
Computer Graphics Tools (1 unit, P/NP)
Professor Dennis Lieu
Monday 5:00-6:00, 2105 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 2
Insulin as a Window on Discovery in Biology (1 unit, P/NP)
Professor Randy W. Schekman
Tuesday 3:00-4:00, 2066 Valley Life Sciences Building, CCN: 57829**

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. This seminar is open to all students interested in the discovery process in the life sciences. A background in high school biology will be useful; AP biology is particularly appropriate preparation for the material we cover.**

Randy Schekman is a Professor of Cell and Developmental Biology in the Department of Molecular and Cell Biology and an Investigator in the Howard Hughes Medical Institute. Schekman is past Chair of the Department and currently is Chair of the Chancellor's Advisory Committee on Biology, a council that covers the span of life science research conducted on the Berkeley campus. Schekman also directs the campus program in stem cell biology. The research in Schekman's laboratory focuses on the mechanism of transport of membrane proteins within the eukaryotic cell.

**Music 24, Section I
The Science of Art, the Art of Science, and the Fun of Dancing in Between (1 unit, P/NP)
Professor Richard Felciano**

Wednesday 3:00-4:00, 13 McEnery Hall located at the Center for New Music and Audio Technologies (CNMAT) at 1750 Arch Street, CCN: 60420

This seminar will meet fourteen Wednesdays, beginning September 6, 2006 and ending December 6, 2006. Since this seminar will not be meeting the first week of the semester, an additional seminar meeting will be scheduled at a mutually convenient time for the instructor and students.

The notion that art and science could be related seems far-fetched to some, but others, both artists and scientists, consider them to be virtually the same thing, or at least different ways of viewing the same thing. The seminar will consider various instances of artists relying directly on science and scientists displaying qualities of mind normally ascribed to artists. Since the work of both depends on the accurate perception of the physical world, we will include the work of cognitive psychologists, where relevant. We will draw on visual and acoustical examples from both present and past. The seminar will meet in the Center for New Music and Audio Technologies (CNMAT), where the relation between art and science is central to its mission. **Entering freshmen, intellectually curious, taking art and science seriously, that is, as more than entertainment or amusement are encouraged to enroll.**

Composer Richard Felciano is Professor Emeritus of Music and Founder of the Center for New Music and Audio Technologies, which provides a means for linking all of Berkeley's disciplines related to sound—fields as diverse as Computer Science, Music, Cognitive Psychology, Linguistics, Electrical Engineering, and Architecture. He has received commissions and awards from the French and Italian governments, the National Endowment for the Arts, and the City of Berlin for its 750th anniversary. His hour-long setting of the interviews of Studs Terkel with ordinary Americans was recently performed in the Library of Congress, which commissioned it.

Natural Resources 24, Section 1

Dean's Night Out - People and the Environment (1 unit, P/NP)

Dean Paul W. Ludden

Thursday 4:30-6:30, 133 Giannini Hall, CCN: 61303

This seminar meets for six weeks on the following dates: September 7, September 14, September 21, October 5, October 19, and November 2, 2006.

You will be introduced to the different approaches for examining the environment and finding solutions to major environmental and natural resource problems. Each session participants will meet guest speakers who will speak informally about their work, their preparation for it, and the problems their work addresses. Following guest speaker presentations, participants are encouraged to interact with the guests to fully reap the benefit of the speakers' experience.

Paul W. Ludden is a Professor in the Department of Plant and Microbial Biology and Dean of the College of Natural Resources. His research interests and expertise are in microbial and plant biochemistry, particularly the role of enzymes in biological nitrogen fixation. His studies help illuminate the role of catalysts in converting nitrogen gas into soil-enriching ammonium which helps lay the groundwork for advances in the development of non-polluting nutrients.

Natural Resources 24, Section 2

Global Environment Theme House Freshman Seminar (1 unit, P/NP)

Professor Stephen Welter

Thursday 5:00-6:00, Classroom A in Foothill I, CCN: 61306

After the formal sessions, the professor and students may continue their discussion informally over dinner in the Dining Commons.

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 each other'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. Discussions will also explore the freshman experience, and how it, too, is an environmental phenomenon, shaped by and in turn shaping the physical, social, and intellectual environment of the Berkeley campus. **This seminar is part of the Food for Thought Seminar Series. Course enrollment restricted to Global Environmental Theme House participants. Obtain CEC from the instructor.**

Steve Welter is Professor and Division Chair of the Division of Insect Biology in the Department of Environmental Science, Policy and Management. He received his PhD from UC Riverside in Agriculture Entomology/Plant-Insect Interactions. His research focuses on developing environmentally rational integrated pest management programs for tree fruit or vegetable crops with a strong emphasis on the behavioral ecology of moths in pheromone-permeated environments. He will be organizing the field trips for this seminar.

Natural Resources 24, Section 3
Dean's Day Out: Follow Your Food (1 unit, P/NP)
Professor Sally Fairfax
Friday 4:00-5:00, 260 Mulford Hall, CCN: 61308

This seminar will meet on Friday, September 8, 2006 from 4:00 to 5:00 p.m. for an organizational meeting in 260 Mulford Hall and the following three Fridays from 4:00-5:00 p.m. in 260 Mulford Hall for background and trip planning: September 15, 22 and 29, 2006. The seminar's field trip will be held on Saturday, September 30, 2006 from 7:00 a.m. to 10:00 p.m. and will begin at West Circle on campus.

Follow your food from seed to salad (and steak) with four discussion meetings and a one-day, all day field trip from lab to farm to dinner. Learn about the nutritional, environmental, and controversial aspects of food production in the Bay Area. Full field trip, class attendance, and all day participation is required to pass.

Sally K. Fairfax is Henry J. Vaux Distinguished Professor of Forest Policy in the S & E Division of Environmental Science, Policy and Management (ESPM) and the Associate Dean of Instruction and Student Affairs for the College of Natural Resources. Her expertise is public land management and land conservation. She and her lab are presently working on a book on alternative food systems.

Near Eastern Studies 24, Section 2
Ancient Egypt at Berkeley: Egyptian Archaeology in the Hearst Museum (1 unit, LG)
Professor Carol Redmount
Wednesday 1:00-2:00, Exhibit Gallery in Hearst Museum (first class) and 205 Wheeler Hall, CCN: 61439

The first seminar meeting will be held in the Exhibit Gallery in Hearst Museum. Future seminar meeting locations will be announced in the first class.

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 objects from the collection. Students will learn to use various resources of the museum and have the opportunity to work with ancient objects. **First year students with no background in the field are encourage to enroll.**

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 provincial town and cemetery 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.

Nutritional Sciences and Toxicology 24, Section I

The Freshman Experience: A Comparative Study (1 unit, P/NP)

Professor George Chang

Tuesday 11:00-12:00, Unit 2 Towle Residence Hall L3 Seminar Room, CCN: 64595

Food for Thought lunch meeting dates and times will be discussed in class. Unit 2 is located at 2650 Haste Avenue between College and Bowditch. Unit 2's front desk staff can direct you to the room if needed.

The freshman experience offers problems and challenges to the first-year student. For example: How can I cope with The Roommate from Hell? What about the "freshman fifteen" pounds of weight gain? Why do I have more reading in one week than I had in all of high school? Is Chemistry 1A really more frightening than death itself? Why can't my GSI speak Californian English? Are assignments and exams really necessary? Each week a team of students will select a question like these, research it for a week, and then present their findings to the class. A lively discussion will follow, with each student speaking every week. In fall 2006, "The Freshman Experience" will be held in Unit 2 Towle Residence Hall L3 Seminar Room to enhance the living-learning connection in the residence halls.

This seminar is part of the Food for Thought Seminar Series. After seminars, students and faculty can continue their discussions over lunch at the Crossroads Dining Commons.

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. His most exciting assignment in the 20th Century was to serve on The Chancellor's Commission to Study the University's Responses to a Diversified Student Body. Recently Professor Chang became the inaugural professor in Cal's new Residential Faculty Program.

Philosophy 24, Section I

The Ethics of Mortality: Is It Ever Okay to Kill Someone? (1 unit, P/NP)

Professor R. Jay Wallace

Monday 11:00-12:00, 234 Moses Hall, CCN: 67195

This seminar will consider whether and under what conditions it might be morally permissible to kill another person. We will consider a variety of situations in which killing has been thought to be morally justified, such as self-defense, the conduct of a just war, the administration of justice (capital punishment), and the alleviation of acute suffering (euthanasia). In considering the permissibility of killing under these various circumstances we will be forced to address fundamental questions about the nature of morality and the value of human life. Readings will be taken from contemporary philosophical discussions (available in a course reader). Students will be expected to attend all seminar meetings and to participate in seminar discussions. In addition, there will be two short papers (1-2 pages).

R. Jay Wallace works in moral philosophy. His interests extend to all parts of the subject (including its history), and to such allied areas as political philosophy, philosophy of law, and philosophy of action. His research has focused on responsibility, moral psychology, and the theory of practical reason. Recently he has written on promising,

freedom, rational agency, normativity, contractualism, instrumental reason, and Nietzsche's Genealogy of Morals. He was an undergraduate at Williams College, where he received the B.A. degree in 1979. He did his graduate work at the University of Oxford (B.Phil. 1983) and at Princeton University (Ph.D. 1988). He has taught at Wesleyan University, the University of Pennsylvania, and the Humboldt-Universität zu Berlin, and has held visiting positions at the Universität Bielefeld, in the Research School of Social Sciences at the Australian National University, at the Humboldt-Universität zu Berlin, and at the University of Canterbury in Christchurch (New Zealand). He is currently Chair of the Philosophy Department at Berkeley.

Psychology 24, Section 1

Social Psychological Concepts and Principles in Everyday Life (1 unit, P/NP)

Professor Serena Chen

Monday 3:00-4:00, G75 Tolman Hall, CCN: 74284

In this seminar, students will discover and learn about basic social psychological concepts and principles and how they apply to their everyday lives. For example, we will talk about how principles of categorization may account for stereotyping, prejudice, and discrimination. Another example is how differences in the domains in which people stake their self-esteem influence their academic and other outcomes. A final example is how differences in people's level of self-esteem have significant consequences for their romantic relationships. **Any first-year student interested in psychology is welcome!**

Dr. Serena Chen is currently an assistant professor in the Psychology Department. She received her Ph.D. from New York University, after which she began a tenure-track position at the University of Michigan. In 2001, Dr. Chen joined the faculty in UC Berkeley's Psychology Department. Dr. Chen's primary research interests focus on the self and identity, close relationships, and social power. More information regarding Dr. Chen's research can be found on her website: <http://socrates.berkeley.edu/~serchen/>

Psychology 24, Section 2

Getting to Know the Berkeley Faculty (1 unit, P/NP)

Professor Christina Maslach

Monday 4:00-5:30, 3138 Tolman Hall, CCN: 74287

This seminar will meet for ten weeks, beginning August 28, 2006 and ending October 30, 2006.

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.

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." For more information regarding Vice Provost Maslach, please visit <http://maslach.socialpsychology.org>.

Slavic Languages and Literatures 24, Section 1

The Brothers Karamazov: Let's Read It Together (1 unit, P/NP)

Professor Hugh McLean

Friday 9:00-11:00, 6115 Dwinelle Hall, CCN: 79841

This seminar is a collective exploration of this great novel, seen both as a work of literary art and as a response to philosophical issues of its time. An oral report is required. **Enrollment is limited to twelve students.**

Hugh McLean is a Professor Emeritus in the Department of Slavic Languages and Literatures. 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.

Spanish 24, Section 6

Talking Funny: Language Variation in Spanish and English Literary Texts (1 unit, LG)

Professor Milton Azevedo

Thursday 1:00-2:00, 223 Wheeler Hall, CCN: 86193

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 the Copy Central on 2560 Bancroft Avenue. **The ability to read and understand spoken Spanish is essential to follow this course successfully. Please note: this is not a conversation course. Students interested in taking a course focusing on conversation should see the Undergraduate Assistant in the Department of Spanish and Portuguese.**

Professor Milton Azevedo specializes in Hispanic Linguistics and his research focuses on applications of linguistics to literature. He has taught Freshman Seminars since spring 1999.

Spanish 24, Section 8

Spanish Cinema in the 90's (1 unit, P/NP)

Professor Jesús Rodríguez-Velasco

Thursday 3:00-4:00, 263 Dwinelle Hall, CCN: 86199

In this seminar we are going to view and analyze several motion pictures produced in Spain during the 1990's (by directors Almodóvar, Cuesta, Bajo Ulloa, Fernando León, among others). Our main question about each of these movies will be this: "How does this film discuss the shift from traditional cultural modes and models to practices associated with modernity during the period now referred to as the Transition—the period between the death of Franco and the blooming of democracy?" As a weekly assignment, the students will be required to watch a movie and think about this question. Films will be available at the libraries, and the instructor encourages the students to create groups to watch them and to talk about them, and bring these discussions into the classroom. **Students will have the option to participate in either Spanish or English. All movies will have English subtitles. 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 eight 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 I

Documentary Playmaking: School Integration, Little Rock, 1957-58 (1 unit, P/NP)

Professor Dunbar Ogden

Monday 2:00-4:00, 8 Zellerbach Hall, CCN: 88027

This seminar will meet for eight weeks, beginning September 11, 2006 and ending October 30, 2006.

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; Central High as the first major integrated 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 Freshman 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 encourage each student to experiment with a role different from his or her own gender and cultural background.

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.

Theater, Dance, and Performance Studies 24, Section 2
Acting from the Outside In: Training Interculturally (1 unit, LG)
Professor Sudipto Chatterjee
Monday 5:00-7:00, 242 Dwinelle Hall, CCN: 88030

Food for Thought dinner meeting dates and times will be discussed in class.

American theatre during the twentieth century has over-emphasized the Method school of realistic acting, where the actor is taught how to empathize with her/his character and relate the character's experiences with the actor's own personal emotions and experiences. While this has yielded tremendous results, thanks to teachers like Lee Strasberg, Stella Adler, and Sandy Meisner, and has been understandably celebrated for a century, it has also tacitly become the single most popular approach to acting. But in the intercultural theatre scene of the new century, actors are being exposed to various kinds of acting styles and more plays demanding different kinds of performance skills where training in the Method is more than often proving inadequate. This class, using tools from non-Western systems of actor-training, will be an attempt to teach students how to approach a character from the outside and not necessarily by relating it with the actor's psyche from the inside, but rather by getting the actor connected to the world of the character by more external means. In addition to group exercises, students will work on monologues and scenes in different styles of acting through the semester. No textbooks are required. **Some prior acting experience preferred. Enrollment is limited to twelve students. This seminar is part of the Food for Thought Seminar Series.**

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

Vision Science 24, Section 1
Myths, Mysteries and Discoveries in Medicine (1 unit, P/NP)
Professor Patsy Harvey

Thursday 12:00- 1:00, 394 Minor Hall, CCN: 66402

Throughout the centuries, people sought to understand the reasons for their illnesses and death. Intriguing explanations, myths and superstitions were developed in an attempt to describe and prevent their medical maladies. In this course, we will discuss early and current explanations of health problems. We will also discuss recent changes in health care and will imagine the roles and discoveries of medicine and health care in the future.

Students enrolled in this course should be curious about people's beliefs and misconceptions about health and diseases, including our own myths about vision.

Dr. Patsy Harvey received her Doctor of Optometry and Masters in Public Health from UC Berkeley. She currently teaches at the UC Berkeley School of Optometry, including courses on Systemic Diseases, Geriatrics, and the History of Medicine and Optometry. During her international travels, she developed a fascination with health beliefs in other countries and times, and enjoys sharing their beliefs and myths with others.

Vision Science 24, Section 3

The Human Eye (1 unit, P/NP)

Professor Richard C. Van Sluyters

Friday 2:00-4:00, 394 Minor Hall, CCN: 66403

This seminar will meet approximately every other week throughout the semester, beginning the first week of the semester.

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?

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 eye and visual system.

Vision Science 24, Section 5

Oh Say Can You See (1 unit, P/NP)

Professor Dennis Levi

Tuesday 4:00-6:00, 491 Minor Hall, CCN: 66406

This seminar will meet approximately every other week throughout the semester, beginning the first week of the semester.

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.

SOPHOMORE SEMINARS

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

American Studies 84, Section I
Neighborhood Globalization (1 unit, LG)
Professor Michel Laguerre
Wednesday 10:00-12:00, 344 Campbell Hall, CCN: 02036

This seminar will meet the first eight weeks of the semester.

This sophomore seminar analyzes and compares the globalization process of urban neighborhoods in the United States (New York and San Francisco) and the European Union (Paris, Berlin and London). It examines the articulation of the local with the global with a focus on the production of neighborhood space, the politics of heritage tourism, the morphology of the residential and business district, the relations of City Hall with the local site, the deployment of transnational diasporic relations, the transformation of local political institutions, and the global anchoring of the wired neighborhood through virtual connectivity. It further discusses the local production of globality and the global production of locality to explain the global identity of the urban neighborhood.

Required Text: Michel S. Laguerre, *Urban Multiculturalism and Globalization in New York City*. New York: Palgrave Macmillan Press, 2003.

Michel S. Laguerre is Professor and Director of the Berkeley Center for Globalization and Information Technology at the University of California, Berkeley. He is the author of several books, including "The Digital City: The American Metropolis and Information Technology" (2005) and "Diaspora, Politics and Globalization" (2006).

Astronomy 84, Section I
The Cosmic Distance Ladder (1 unit, P/NP)
Professor Joshua Bloom
Tuesday 3:30-5:00, 501 Campbell Hall, CCN: 06881

This seminar meets January 17 through February 7 and March 14 through April 18, 2006.

A fundamental understanding of the nature of stars, galaxies and the cosmos rests on a basic measurement of distance. Yet with no direct measurements, astronomers must rely on indirect cosmic yardsticks. Through primary and secondary texts we will review the intellectual, technical, and personal achievements in measuring astronomical distances throughout the ages, from the ancients to Henrietta Swan Leavitt to Edwin Hubble. In our readings and discussions we follow the construction of the cosmic distance ladder out of the Solar System, to the stars in our Galaxy and now, in modern times, to the edge of the observable universe. **Though the course is intended for a general audience, some prior college-level class work in physics and astronomy is strongly suggested (Astronomy 10 or Physics 7,8, or 10 or equivalent).**

Joshua Bloom is an Assistant Professor in the Department of Astronomy. For more information regarding Professor Bloom, please visit his faculty web page at <http://astro.berkeley.edu/~jbloom>.

Chemistry 84, Section I
Bio-nanotechnology in Science and Society: Facts, Fears, and Fantasies (1 unit, P/NP)
Professor Jay Groves
Monday 1:00-2:00, 122 Latimer Hall, CCN: 11356

Bio-nanotechnology has emerged as a new branch of the nanotechnology craze. What is this new field of science, and is it really a field? Even scientists widely disagree. In this seminar, we will discuss various theme areas that can be fit into the definitions of bio-nanotechnology. The underlying scientific themes will be discussed at a basic level. We will also explore the perception of bio-nanotechnology within the broader society as well as taking a careful look at what can be expected and what really is fantasy for the foreseeable future. **Enrollment is limited to twelve students. The course is designed for students with an interest in science and technology, both at the level of becoming researchers themselves and as interested citizens who will inevitably be affected by science and technology developments.**

Professor Groves received a B.S. in Physics and Chemistry from Tufts University (1992) and his Ph.D. in Biophysics from Stanford University (1998). After leaving Stanford, he spent a year as a Visiting Scholar at Academia Sinica in Taipei, Taiwan. He then took a position as Division Director's Fellow at Lawrence Berkeley National Labs, and later joined the UC Berkeley Chemistry Department faculty in 2001. His work at the interface of chemical biology and nanotechnology has been recognized by a number of awards including the Merrill Lynch Innovation Grants Entrepreneurship Prize for invention and commercialization of the MembraneChip™, Burroughs Wellcome Career Award in the Biomedical Sciences, Searle Scholar's Award, Beckman Young Investigator's Award, and NSF CAREER Award. He was also elected to the MIT Technology Review Top 100 Innovators in 2003. Professor Groves founded a company working in the bio-nanotechnology space in 2000, and continues to hold an active seat on the Board of Directors.

English 84, Section 1
High Culture, Low Culture: The Coen Brothers and the Arts (2 units, P/NP)
Professor Julia Bader
Thursday 2:00-5:00, 300 Wheeler Hall, CCN: 28158

The course will focus on films of the Coen Brothers and other contemporary directors (Lynch, Kieslovski, Wong Kar-Wai) and the stories of Lakiri in order to observe how cinematic/literary representations function. We will make use of UAM exhibits, Cal Performance shows, and PFA films to amplify our experience of the cultural context.

Book List: J. Lahiri: Interpreter of Maladies; W. Helsby: Understanding Representation

Professor Julia Bader teaches in the English Department and specializes in the modern period, both British and American, with an emphasis on fiction, film, and feminism.

English 84, Section 2
Socrates as Cultural Icon (2 units, P/NP)
Professor John Coolidge
Tuesday 2:00-4:00, 205 Wheeler Hall, CCN: 28810

Socrates has often been compared to Jesus, an enigmatic yet somehow unmistakable figure who left nothing in writing yet decisively influenced the mind of his own and later ages. We will read the contemporary representations of Socrates--Aristophanes' comic send up in "Clouds" and the Platonic dialogues purporting to tell the story of Socrates' trial and death, and discuss such topics as Socrates' questionable political associations; Socrates as protomartyr of academic freedom and of civil disobedience; Socrates and the heroic self. The assigned texts are Four Texts on Socrates, tr. Thomas G. West and Grace Starry West (Cornell, revised ed., 1998) and Plato's Phaedo, ed. Eva Brann et al. (Focus, 1998); these will be supplemented by a reader illustrating various historical interpretations of "know thyself" etc. and by e-mail attachments on occasion.

John S. Coolidge, emeritus professor of English and amateur classicist, has previously taught lower-division seminars on Plato's Republic and on Augustine's Confessions. His areas of scholarly interest include the Bible and biblical interpretation, Shakespeare, Milton, Marvell, Fielding, and the English Puritans.

Film Studies 84, Section I

From Real to Reel: The History and Development of Documentary Film (2 units, LG)

Mr. Gary Handman

Monday 10:00-12:00 and Wednesday 10:00-11:00 , 226 Dwinelle Hall, CCN: 31598

This seminar will meet on Mondays from 10:00-12:00 to screen films and on Wednesdays from 10:00-11:00 for discussion.

This seminar will investigate the modes, styles, and uses of documentary film that have developed over the past 120 years, from the earliest cinematic efforts to record "actuality" to present day deconstructions, appropriations, and parodies of traditional documentary forms and conventions. The focus of the course will largely be on American and European documentary traditions. Through screenings of representative works, and class discussions and online discussions, we will investigate how and why various historical periods have given rise to particular documentary forms and documentary agendas. We will consider the persistence and/or changing nature of documentary film conventions and strategies. The seminar will consider how the "voice" of the filmmaker is represented in his/her films. We will also explore the various ways in which documentary filmmakers use evidence and argument to tell a story, to persuade or incite audiences, or to put forward a particular view of the world. Throughout the seminar, we will consider a number of significant issues and controversies surrounding the production and consumption of documentary films, including the relationships and differences between fiction and non-fiction film; problems related to claims of representing "truth" and "reality"; the issue of documentary objectivity; the ethics of representing others; and the relationships between filmmaker, film subject, and film audience. **Students willing to view films critically and to actively and creatively engage in discourse about them are encouraged to take this seminar. This seminar does not fulfill the Film Studies documentary requirement.**

Gary P. Handman received his Master of Library and Information Studies in 1976 from the University of California, Berkeley. Since 1984, he has served as Director of the Media Resources Center, Moffitt Library, University of California, Berkeley, one of the largest curated video collections in a US academic library. From 1985 to 1993, he regularly taught the course in media librarianship in the UC Berkeley School of Library and Information Studies, and he continues to speak and lecture widely on the topics related to media in libraries. In Spring 2005 he taught Film 28A (Introduction to Documentary) in the UC Berkeley Film Studies Department. In Spring 1997 he taught Film 24, a freshman seminar dealing with the representation of technology in the movies. He lectures regularly in various courses on film and film research topics. Mr. Handman has written extensively in the field of video librarianship, including a regular video column in *American Libraries*. He is a member of the board of advisors of the New York Film and Video Festival and of MediaRights.org; he is a founding member of the American Library Association Video Round Table, and was the first elected chair of the group.

Molecular and Cell Biology 84D, Section I

Viruses and Cancer (1 unit, P/NP)

Professor P. Robert Beatty and Dr. Scott Balsitis

Thursday 3:00-4:00, 2062 Valley Life Sciences Building, CCN: 57817

This seminar will discuss the basic concepts related to viruses that are associated with cancer. The various diseases caused by these oncogenic viruses will be discussed along with immune protection and drug treatment. We will discuss many different viruses including Kaposi's sarcoma herpesvirus, Epstein-Barr virus, human papillomavirus, hepatitis B virus, and hepatitis C virus. In addition, we will discuss the issues for prevention of viral infections and cancers with vaccines. **The intended audience would be students who are interested in science and most specifically immune responses to viruses and immune regulation of cancer. A science background is not required but helpful. Students should not be afraid of reading articles discussing or reviewing current science research. Students interested in intellectual discourse are encouraged.**

Professor Beatty is an infectious disease immunologist who has worked on Chlamydia, Epstein-Barr virus, Leishmania, and dengue virus over the last fifteen years. His research has focussed on T cell immunology and cytokine signaling. He teaches immunology classes at Cal in the Department of Molecular and Cell Biology.

Dr. Balsitis is a virologist who has studied avian influenza, human papillomavirus, and dengue virus. His work on human papillomavirus focused on the molecular mechanisms by which HPV promotes the formation of cervical cancer. He currently studies immunopathogenesis of Dengue Hemorrhagic Fever in the Harris lab in the School of Public Health.

Natural Resources 84, Section I

Global Environment Theme House Sophomore Seminar (1 unit, P/NP)

Professor John Battles

Thursday 5:00-6:00, Classroom A in Foothill I, CCN: 61309

After the formal sessions, professor and students may continue their discussion informally over dinner in the Dining Commons.

The goal of this Sophomore 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 each other'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 is part of the Food for Thought Seminar Series. Course enrollment restricted to Global Environmental Theme House participants. Obtain CEC from instructor.**

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.

Peace and Conflict Studies 84, Section I

Why Are We Here? Great Writing on the Meaning of Life (2 units, P/NP)

Professor Michael Nagler

Tuesday 2:00-4:00, 2062 Valley Life Sciences Building, CCN: 66744

We would seem to be the only animal that ponders the purpose of its being here on this earth, and arguably must do so. The question has often gone underground—as it has in this superficial culture of industrialism—but it has never gone away. In this seminar we will try to craft our own responses to this question, to come up with strategies for grappling with if not answering it, using the stimulus of selections of great writings from widely varied times and places and our mutual discussions around those seminal texts. Each student will have the opportunity to do a presentation on any aspect of this question that interests her or him, and will hand in a written exercise at the end that may or may not be based on that presentation. **The only real requirement for a beneficial experience in this seminar is a real concern with the question. The student should be restless with and suspicious of the superficiality and reductionism, the materialism and cynicism that have taken hold of post-modern humanity, and be willing to entertain a hope that something more meaningful may be in store for us. Naturally, good reading and writing skills will be helpful, and the patience to think through arguments open-mindedly but critically. No particular academic discipline suggests itself as needed for this universally human form of inquiry; rather, we should try to bring to it a willingness to ask big questions and listen to the way others have tried to answer them.**

Professor Nagler taught Classics and Comparative Literature at Berkeley from 1966-1991, and on taking early retirement in that year joined the Peace and Conflict Studies program he had co-founded some years before. He

is the author, most recently, of the award-winning *The Search for a Nonviolent Future and Our Spiritual Crisis*. He speaks on subjects related to peace and nonviolence around the world. He also teaches "Meditation" and "Theory and Practice of Nonviolence" in PACS.

FRESHMAN AND SOPHOMORE SEMINARS

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

Comparative Literature 41D

Forms of the Drama: Performing Gender: Gender Roles in Dramatic Traditions (4 units, LG)

Ms. Maya Fisher

MWF 10:00-11:00, 121 Wheeler Hall, CCN: 17290

The theater, focused as it is on the performance of roles of all kinds, has always provided a particularly appropriate arena in which to explore the nature and boundaries of gender roles (and the possibilities of escaping from them) even more so in those traditions in which women were not allowed on the stage. In this course, we will examine three such traditions: Sanskrit, Classical Greek, and Elizabethan drama. We will frame our discussion of these plays with selections from the dramatic theories of Abhinavagupta and Aristotle, considering the ways in which these differing approaches to viewing and evaluating drama have (or have not) resulted in different aesthetic experiences, and how these in turn have affected the presentation of gender. We will finish the semester by considering the ways in which two modern films, one from Bollywood and one from Hollywood, have or have not critically engaged their respective Western and Indian dramatic traditions. This seminar may be used to satisfy the Arts and Literature requirement in Letters and Science.

Maya Fisher is a graduate student instructor in the Department of Comparative Literature at UC Berkeley.

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: 26244

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, the human visual system, spatial and color perception, and chemical versus electronic processing. Class assignments will be primarily based on color slides and secondarily on digital images. Although print film assignments are welcome, there are unfortunately no darkroom facilities available. Student work will be critiqued in class. For more information regarding this seminar, please visit the course website at <http://inst.EECS.Berkeley.EDU/~cs39j/>. 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.**

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 Harold Helgeson and Chi-Yuen Wang

MW 4:00-5:00, 365 McCone Hall, CCN: 19009

Field trip dates TBA. For additional field trip and meeting schedule details and updates, visit website TBA.

The theme of this course is the influence of geology in California society. As a freshman seminar, the class involves close personal interaction between students and senior faculty. For the interaction to work, it is essential that all enrolled students be prepared for the learning experience and to become engaged as active participants. Toward this end, the field trips are preceded by two or three one-hour lectures and two or three video presentations. Students are expected to attend one logistical meeting for the section of the field trip they are attending. Each student goes on only one field trip: Group 1 or 2. Each group will take one continuous four-day trip to visit geological and historical localities in various parts of California. Topics emphasized on the trips vary: societal impacts of dams, the Gold Rush, resource conservation, the geology of Yosemite as a national park, water resource issues, volcanic and seismic hazards, and glacial geology. Three nights will be spent camping out. Accordingly, each student will need to bring appropriate gear including a sleeping bag and a tent or make arrangements to share space in a tent. More details on equipment to bring and preparations to make will be supplied at the logistical meetings. **Enrollment is limited to ~65 freshman students with a wait-list of ~10. The class will be split into two field-trip groups of a size small enough to ensure an interactive seminar experience. This course is restricted to freshmen only. Any questions about this course should be directed to the coordinator, Professor Harold Helgeson.**

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. For more information regarding Professor Helgeson, please visit his faculty page on the Earth and Planetary Science website.

Chi Wang is a Professor of Geophysics in the Department of Earth and Planetary Science. His research interest includes earthquakes, faults, mountains and fluids in the earth's crust. For more information regarding Professor Wang, please visit his faculty page on the Earth and Planetary Science website.

Environmental Economics and Policy 39A

Critical Choices in the Use of Natural Resources (2 units, P/NP)

Professor David Zilberman

Wednesday 4:00-6:00, 2326 Tolman Hall, CCN: 01218

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. This seminar may be used to satisfy the Social and Behavioral Sciences requirement in Letters and Science.

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.

Film Studies 39B

Films of the Frozen North: Introduction to Scandinavian Cinema (2 units, P/NP)

Professor Linda Rugg

Monday 12:00-1:00 and Friday 11:00-2:00 , Location - See below., CCN: 31447

This seminar will meet the first ten weeks of the semester, beginning August 28 through November 3, 2006. This seminar will meet on Mondays for discussion in 226 Dwinelle Hall and on Fridays for film screening in 226 Dwinelle Hall.

The Scandinavians have been important and productive participants in the global film industry from the silent era through Bergman, and today some of Europe's most provocative films are made by Scandinavians. Scandinavian films are characterized by a striking use of light and color, intense engagement with ideas surrounding sexuality, politics, and spirituality, and an inquiry into how cinema performs as a narrative art. Come learn about the culture of Scandinavia as exposed in the films of Denmark, Finland, Iceland, Norway, and Sweden. This course will introduce students to a brief overview of Scandinavian cinema in ten weeks, focusing in the latter weeks on the most recent offerings from directors such as Lars von Trier and Aki Kaurismaki. Course requirements: two hours of screening and one hour of discussion per week. This seminar is also offered as Scandinavian 39B (CCN: 78732).

Linda Haverty Rugg is an Associate Professor in the Scandinavian Department and affiliated with the Film Program. She has written a book on photography and autobiography and is currently writing its "sequel" on film and autobiography. Other special interests include ecology and culture and the construction of whiteness in representations of race.

History 39D

Two Empires: China and Rome (4 units, LG)

Professor David G. Johnson

Monday 2:00-4:00, Location TBA, CCN: 39245

The goal of this seminar is to increase our understanding of classical Chinese civilization by systematically comparing the early Chinese empire—the great Han and T'ang dynasties—with the Roman Republic and Empire. This approach is expected to throw new light on the civilization of Rome as well, and hence on our understanding of one of the most important formative influences of European culture. We will focus on topics such as law (and to a lesser extent the institutions of central government); rhetoric and the public life of the ruling elite; engineering and public works generally; the writing of history; poetry; and philosophy. The first several weeks will be devoted to general background reading. Most of the following weeks will focus on specific Chinese and Latin texts in translation. No previous acquaintance with Chinese or Roman history is necessary. **Enrollment is limited to fifteen students. Students who are interested in this course are encouraged to review the syllabus before enrolling.** This seminar may be used to satisfy the Historical Studies and Social and Behavioral Sciences requirements in Letters and Science.

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 combines taking photographs with studying the work of the great masters. It is based on a critical study and discussion of the work of selected 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. After those assignments there will be a term paper on a topic developed by each student individually, 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 Friday, 25 August, and Wednesday, 30 August. Further information and an interview sign-up sheet will be posted at that time by the instructor's office, 423 Doe Library. To qualify, students must have darkroom experience and bring samples of their black-and-white photography to the interview.** This seminar may be used to satisfy the Arts and Literature requirement in Letters and Science.

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)
Director Helen E. Diggs and Professor Gregory B. Timmel
Thursday 2:00-4:00, 4110 Valley Life Sciences Building, CCN: 43015

Filed trip arrangements to be discussed in class.

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 participate actively in class discussions, complete reading assignments, take a weekly review quiz, and attend scheduled field trips.

Helen E. Diggs, MEd, DVM 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 public health, and zoonotic diseases.

Gregory B. Timmel, MS, DVM is a Clinical Veterinarian for the Office of Laboratory Animal Care. He received two veterinary degrees from Colorado State University. He is licensed to practice veterinary medicine in California and Hawaii. His research interests include the behavioral enrichment of captive animals, avian/exotic animal medicine and veterinary anesthesia.

Journalism 39H**Satellite Radio: Breaking the Bonds of Earth (TBA, P/NP)****Professor William J. Drummond****Day TBA Time TBA, Location TBA, CCN: 48006**

Dramatic changes have taken place in the listening habits of consumers. Traditional AM and FM radio face a challenge from programming sources literally not of this earth. Satellite radio entered the scene only about five years ago and has made significant inroads. Two services are available: XM and Sirius. Both services offer a wider selection of music as well as talk and entertainment programming than terrestrial radio. This seminar will listen to and critique satellite radio. Students should be prepared to listen critically and write about their reactions to what they are hearing. The class will also examine other advances in audio technology. The goal is to develop an understanding of market forces in present-day radio programming.

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, Section I**Myth, Memory, and History: Understanding Native America (4 units, LG)****Visiting Lecturer Diane Pearson****MWF 11:00-12:00, 219 Dwinelle Hall, CCN: 61124**

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. This seminar may be used to satisfy the Social and Behavioral Sciences and Historical Studies requirements in Letters and Science.

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 Enoch****TuTh 2:30-4:00, 394 Minor Hall, CCN: 65503**

This seminar will meet the first five weeks of the semester. There are also two late afternoon and evening sessions which will be added towards the end of the period of time in which the class meets.

The developing world and its profound problems will remain with us throughout our lifetime. Continued population growth, rapid aging of these populations and provision of care for the aged; questionable adequacy of harvests, greatly increased 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 are emphasized. Individuals will be encouraged to participate actively in discussions, and to examine situations in other countries to better understand both existing problems and opportunities. Students will be asked to prepare oral presentations and written materials on related issues of personal interest. This course is also listed as South and Southeast Asian Studies 39C (CCN: 83112). This seminar may be used to satisfy the International Studies and Social and Behavioral Sciences requirements in Letters and Science.

Dean Emeritus and Professor of the Graduate School Jay M. Enoch maintained a research laboratory in Madurai in Tamil Nadu State for many years. In 1985, he helped start a successful college in Madras (Chennai) in Tamil Nadu, and he is currently involved in developing graduate programs at the latter institution to help train additional teachers/researchers, and is participating in the organization of additional new college programs in India.

Plant and Microbial Biology 39A, Section I
Environmental Microbiology (3 units, LG)
Professor Steven Lindow
MWF 1:00-2:00, 24 Warren 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. This seminar may be used to satisfy the Biological Sciences requirement in Letters and Science.

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.

Psychology 39E, Section I
The Psychology of Art (2 units, LG)
Professor Art Shimamura
Monday 10:00-12:00, 3105 Tolman Hall, CCN: 74290

In this course we will discuss how psychology—particularly perception, memory, and emotion—is reflected in the visual arts. Each week we will cover issues related to the psychology of art, such as linear perspective, representation of form, and aesthetics. Specifically, we will analyze various paintings and

identify those that particularly represent aspects of psychology. This seminar may be used to satisfy the Arts and Literature requirement in Letters and Science.

Professor Shimamura completed his Ph.D. at the University of Washington in 1982 and joined the Psychology Department in 1989. He conducts research in the fields of cognitive neuroscience and basic memory functions, and teaches Psychology I and courses in cognitive psychology.

Public Health 39F, Section I
Eating and Health Disorders (2 units, P/NP)
Professor Zak Sabry
Wednesday 2:00-4:00, 106 Mulford Hall, CCN: 75706

Food for Thought dinner meeting dates and times will be discussed in class.

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. **This course is designed to appeal to students with a breadth and variety of interests. This seminar is part of the Food for Thought Seminar Series.** This seminar may be used to satisfy the Biological Sciences requirement in Letters and Science.

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 39F
Getting Inside the Text: Close Reading and the Art of Rhetoric (2 units, LG)
Professor Daniel F. Melia
Wednesday 10:00 - 12:00, 7415 Dwinelle Hall, CCN: 77860

Food for Thought lunch meeting dates, times and locations will be discussed in class.

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*. **Students who want to learn rhetorical strategies from the "ground up", by looking closely at the wording and structure of several books are encouraged to enroll. Enrollment is limited to sixteen students. It is a course in anti-speed reading. This seminar is part of the Food for Thought Seminar Series.** This seminar may be used to satisfy the Arts and Literature requirement in Letters and Science.

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.

Scandinavian 39B
Films of the Frozen North: Introduction to Scandinavian Cinema (2 units, P/NP)
Professor Linda Rugg
Monday 12:00-1:00 and Friday 11:00-2:00, Location - See below, CCN: 78732

This seminar will meet the first ten weeks of the semester, beginning August 28 through November 3, 2006. This seminar will meet on Mondays for discussion in 226 Dwinelle and on Fridays for film screening in 226 Dwinelle.

The Scandinavians have been important and productive participants in the global film industry from the silent era through Bergman, and today some of Europe's most provocative films are made by Scandinavians. Scandinavian films are characterized by a striking use of light and color, intense engagement with ideas surrounding sexuality, politics, and spirituality, and an inquiry into how cinema performs as a narrative art. Come learn about the culture of Scandinavia as exposed in the films of Denmark, Finland, Iceland, Norway, and Sweden. This course will introduce students to a brief overview of Scandinavian cinema in ten weeks, focusing in the latter weeks on the most recent offerings from directors such as Lars von Trier and Aki Kaurismaki. Course requirements: two hours of screening and one hour of discussion per week. This seminar is also offered as Film Studies 39B (CCN: 31447). **Please note that this is a 2 unit class.**

Linda Haverty Rugg is an Associate Professor in the Scandinavian Department and affiliated with the Film Program. She has written a book on photography and autobiography and is currently writing its "sequel" on film and autobiography. Other special interests include ecology and culture and the construction of whiteness in representations of race.

Social Welfare 39A

Social Problems Through Literature (2 units, P/NP)

Professor Henry Miller

Wednesday 10:00-12:00, 201 Haviland Hall, CCN: 80703

The industrial revolution fell upon western civilization with a vengeance: old forms of human misfortune were exacerbated in intensity and new ones appeared for the first time on the face of the planet. Out of the turbulence and social upheaval of the last two centuries many social institutions were invented to minister to the horrible consequences of industrialization—the most significant being that set of ideas, policies, and programs called the welfare state. This seminar will address the issue from the vantage point of creative literature. Through the keen eye of imaginative artists, the phenomenological impact of industrialization, urbanization, and family disorganization becomes alive. It was the individual human being who, in the last analysis, suffered, and the vantage point of the seminar focuses on that subjective experience. The readings embrace problems such as crime, mental illness, poverty, and substance abuse. They include, among others, the works of writers such as Dostoyevsky, Steinbeck, and Kafka. This term the seminar will focus primarily on the very serious problem of crime and penology. **Enrollment is limited to twenty freshman.** This seminar may be used to satisfy the Arts and Literature requirement in Letters and Science.

Professor Henry Miller has taught on the UC Berkeley campus since 1962. His research interests have included the problems of disaffected youth, substance abuse, homelessness, and vagrancy. He has written extensively in those fields. His latest book is *On the Fringe: The Dispossessed in America*.

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 Enoch

TuTh 2:30-4:00, 394 Minor Hall, CCN: 83112

This seminar will meet the first five weeks of the semester. There are also two late afternoon and evening sessions which will be added towards the end of the period in which the class meets.

The developing world and its profound problems will remain with us throughout our lifetime. Continued population growth, rapid aging of these populations and provision of care for the aged; questionable adequacy of harvests, greatly increased 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 are emphasized. Individuals will be encouraged to participate actively in discussions, and to examine situations in other countries to better understand both existing problems and opportunities. Students will be asked to prepare oral presentations and written materials on related issues of personal interest. This course is also listed as Optometry 39B (CCN: 65503). This seminar may be used to satisfy the International Studies and Social and Behavioral Sciences requirements in Letters and Science.

Dean Emeritus and Professor of the Graduate School Jay M. Enoch maintained a research laboratory in Madurai in Tamil Nadu State for many years. In 1985, he helped start a successful college in Madras (Chennai) in Tamil Nadu, and he is currently involved in developing graduate programs at the latter institution to help train additional teachers/researchers, and is participating in the organization of additional new college programs in India.