



SPRING 2012

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**Freshman and Sophomore Seminars
University of California, Berkeley
231 Evans 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 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 unforgettable. For details on the Discovery Courses, see <http://lsdiscovery.berkeley.edu>.

This document was last updated on February 4, 2012.

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.

African American Studies 24, Section I
Language and Politics in Southern Africa (1 unit, P/NP)
Professor Sam Mchombo
Wednesday 1:00-2:00, 78 Barrows Hall, CCN: 00560

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 On the Same Page initiative. This seminar is part of the Food for Thought Seminar Series.**

Sam Mchombo is an Associate Professor in the Department of African American Studies and was a member of the Department of Linguistics faculty from 1988 to 2009. 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.

Faculty web site: http://linguistics.berkeley.edu/people/person_detail.php?person=26

Anthropology 24, Section 1
Contemporary India: Introduction to Social and Cultural Analysis (1 unit, P/NP)
Professor Lawrence Cohen
Monday 1:00-2:00, 221 Kroeber Hall, CCN: 03440

This seminar will offer close readings and intensive discussions of recent and classic debates on society, culture, and religion in India now and over the past century. In addition to engaging a crucial part of the contemporary world in global perspective, the seminar will introduce students to debates and methods across the human sciences and in particular in anthropology, sociology, and political theory.

Lawrence Cohen is an Assistant Professor in the Anthropology Department. He studied religion and went to medical school before deciding to become a medical anthropologist. He has studied and worked in north India since 1983 and is the author of many articles and a book, *No Aging in India: Alzheimer's, the Bad Family, and Other Modern Things*. His current work examines the relation between sexuality and the economy in contemporary India.

Anthropology 24, Section 2
Exploring Our Campus and City Communities Through Photography (1 unit, P/NP)
Professor Stanley H. Brandes
Thursday 10:00-11:00, 221 Kroeber Hall, CCN: 03446

The object of this freshman seminar is to explore our Cal community and the city of Berkeley through the medium of photography. We begin by learning about a time-honored documentary genre: the photographic essay. In the first few class sessions, we explore the composition of the photographic essay as well as alternative ways to produce it. The remainder of the seminar is devoted to student production of original photographic essays. Students may work individually or in pairs to produce this document. The first essay should deal with our campus, the second with the city. In a supportive atmosphere, we share these essays with the entire class and solicit comments and reactions from our peers. The overall goal is to teach seminarians something new about their environment during their first year at Berkeley. Grades are assigned on a Pass/Fail basis. To receive a Pass, students are expected to participate in class discussions and complete two original photographic essays, designed in consultation with the instructor and fellow students. Students who miss more than three scheduled classes will receive a failing grade. There are no course examinations. **To take this course, students must have access to any device that takes pictures, plus a way to print those images.**

Stanley Brandes received his Ph.D. in Anthropology at UCB and has been a long-time member of the Cal anthropology faculty. His recent research includes the analysis of food and drink, ritual and religion, pets and their people, and the social dimensions of visual media, especially photography and film.

Faculty web site: <http://anthropology.berkeley.edu/users/stanley-h-brandes>

Architecture 24, Section 1
Exploring the Architectural Profession (1 unit, P/NP)
Professor Mike Martin
Wednesday 2:00-5:00, 270 Wurster Hall, CCN: 03601

This seminar will meet five weeks, beginning January 18, 2012 and ending February 15, 2012.

This seminar will examine the historical foundations of the architectural profession, the role of education in preparing professionals, the structure of contemporary architectural practice and the changing context of the future of the architectural profession. These aspects will be introduced by reading and discussing selected literature and case studies. **Open to all majors who have an interest in design as a**

way of thinking and acting in and on the world. The architecture profession will be used as the vehicle to explore design as a discipline.

Mike Martin FAIA, PhD is a Professor Emeritus of Architecture and former Undergraduate Dean of the College of Environmental Design and Chair of the Architecture Department. He studied architecture at the University of Colorado, the University of Washington and the University of California, Berkeley. He is the former Head of the Architecture Department at the California Polytechnic State University in San Luis Obispo. He is an architect specializing in the study of design education and its relationship to design methods and architectural practice with an emphasis on knowledge production in the profession. He is a Fellow of the American Institute of Architects and an active participant in the dialogue between education and professional practice. His book "Design Informed: Driving Innovation with Evidence-Based Design" has just been published by John Wiley & Sons.

Faculty web site: <http://www.ced.berkeley.edu/ced/people/query.php?id=73&dept=all&title=all>

Chemical Engineering 24, Section 1
Foundation of Our Empire: Energy (1 unit, P/NP)
Professor Jeffrey Reimer
Monday 4:00-5:00, 100E Hildebrand Hall, CCN: 10303

Cheap energy has been the mainstay of American life for decades. The availability of energy has made deserts into croplands and cities, and helped build an industrial empire that dominates world markets. An increasing number of scientists and policy analysts, however, are concerned about the future reliability of this resource. Join this seminar and engage in a series of readings and discussions about our energy budget, including the triumphalism of science and engineering, the sobering reality of a world with 9 billion people, and the posturing of politicians. What is the problem with carbon? Are we supposed to buy electric cars? Will the renewables work? We seek answers to these and other questions. **Non-technical majors are especially welcome.**

Jeffrey A. Reimer is a Professor in the Department of Chemical and Biomolecular Engineering. 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. In 2003 Professor Reimer was awarded the Distinguished Teaching Award, the highest award bestowed on faculty for their teaching. He is a Fellow of the American Association for the Advancement of Science.

Faculty web site: <http://india.cchem.berkeley.edu/~reimer/>

Chemical Engineering 24, Section 2
The Science and Engineering Behind Food (1 unit, P/NP)
Professor Susan Muller
Thursday 4:00-5:00, 72 Evans Hall, CCN: 10306

This seminar will explore the science and engineering concepts behind food and cooking. Topics will include introductions to the molecular structure of the basic components of food, how molecular structure determines phase behavior, the manipulation of food texture and feel (viscosity and elasticity), gelation, fermentation, and methods of heating, cooling, and tempering. Readings will come from popular books on "kitchen science," including "On Food and Cooking: The Science and Lore of the Kitchen" by H. McGee. **Enrollment is limited to fourteen freshmen. Open to all freshman; some knowledge of chemistry (or concurrent enrollment in general chemistry) will be helpful.**

Professor Muller has been on the faculty of Chemical and Biomolecular Engineering at Berkeley since 1991. She holds a BSE from Princeton University and a PhD in chemical engineering from MIT. Her research interests include the processing of synthetic and biological macromolecules, fluid mechanics and transport phenomena, microfluidics, and rheology.

Faculty web site: <http://www.cchem.berkeley.edu/sjmgrp/>

Chemistry 24, Section I
Bridge (1 unit, P/NP)
Professor Marcin Majda
Thursday 4:00-5:00, 262 Evans Hall, CCN: 11294

"The essentials for playing a good game of bridge are to be truthful, clear-headed and considerate; prudent but not averse to taking a risk; and not to cry over spilt milk. And incidentally, those are perhaps also the essentials for playing the more important game of life." - Somerset Maugham

This seminar will offer an introduction to bridge—a card game involving two opposing pairs of partners. Standard bidding conventions and elements of play will be covered. Bridge is a rather sophisticated game with an intellectual challenge comparable to that of chess. **Enrollment is limited to sixteen freshmen. This is “bridge for beginners” seminar. No prior knowledge of the game is assumed or necessary. However, students who enjoy logical, strategic thinking and like card games and puzzles will enjoy and appreciate bridge the most. This seminar is part of the Connections@Cal initiative.**

Marcin Majda is not a bridge expert but has passionately enjoyed playing bridge for most of his life. In Fall semesters, he teaches freshman chemistry (Chem 1A). Other information, not necessarily relevant to this seminar, can be found on his university web site.

Faculty web site: <http://chem.berkeley.edu/faculty/majda/index.php>

Chicano Studies 24, Section I
Chicano Civil Rights Movement (1 unit, P/NP)
Professor Carlos Muñoz Jr.
Monday 10:00-11:00, 106 Mulford Hall, CCN: 13105

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

Dr. 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*.

Faculty web site: <http://ethnicstudies.berkeley.edu/faculty/profile.php?person=21>

Civil and Environmental Engineering 24, Section I
The Design and Construction of Biosand Filters for Developing Countries (1 unit, P/NP)
Professor John Dracup
See days and times below , See locations below, CCN: 13906

The first class meeting will be held on Thursday, February 23, 2012 from 6:00 - 7:00 p.m. in 212 O'Brien Hall. The second class meeting will be held on Saturday, February 25, 2012 from 9:00 a.m. - 3:00 p.m. in Professor Dracup's lab, 125 O'Brien Hall. The third class meeting will be held on Saturday, March 10, 2012 from 9:00 -

3:00 p.m. in Professor Dracup's lab, 125 O'Brien Hall. The fourth and final class meeting will be held on Tuesday, March 13, 2012 from 6:00 - 7:00 p.m. in 212 O'Brien Hall. Pizza and soft drinks will be served at all four of the class meetings. To obtain a passing grade, attendance at all of the four class meetings is mandatory. There will be no exceptions. Please check your schedule carefully before registering for this class.

UNESCO and WHO report that 4,000 to 6,000 children under the age of five die each day in the developing world from the lack of clean water and sanitation. This is equivalent to twelve 747 jet passenger planes crashing each day of the year. However, a simple cheap technology, the biosand water filter, is available to mitigate this problem. Biosand water filters have recently become widely used in the developing world as a means of purifying drinking water for individual household use. Since 1999, approximately 80,000 biosand filters have been installed around the world, serving 500,000 people. They provide a cheap and effective means of removing turbidity and pathogens, i.e., viruses, bacteria and worms, from polluted water. Furthermore, biosand filters can be readily made from local sources of sand and gravel. The bio layer, one of the main combatants of pollutants, is located at the top of the sand column, and takes up to a few weeks to grow, feeding off the influent initially poured through the sand and gravel column. The outer container can be made from plastic or concrete, materials that are commonly available in the developing world. The pipes and connections are usually made of one-inch PVC pipes. The purpose of this seminar will be to build and test three different biosand filter containers. The class of fifteen freshman students will be divided into three teams of five people per team. Each team will build and test its own unique biosand filter. **Enrollment is limited to fifteen freshmen interested in environmental issues.**

Dr. John Dracup is a Professor of the Graduate School in the Department of Civil & Environmental Engineering. His expertise is in water resource engineering and hydrology. His recent awards include: being inaugurated into the "Order of the Black Blouse" by the Water Rights Court of Valencia, Spain; the designation of a Diplomat of the American Academy of Water Resource Engineering of the American Society of Civil Engineers; a Honorary Professorship at the Universidad Catolica St. Antonio of Murcia, Spain; and the "Agua para Todos" award from the Region of Murcia, Spain; he was a Senior Fulbright Scholar to Australia and he is a Fellow of the AGU, ASCE, AAAS and the AWRA. He swims competitively with Pacific Masters Swimming.

Faculty web site: <http://www.ce.berkeley.edu/faculty/faculty.php?id=205>

Classics 24, Section I
Ancient Greek Food and Religion (1 unit, P/NP)
Professor Mark Griffith
Monday 3:00-4:00, 340I Dwinelle Hall, CCN: 14733

In this course we will look at ancient Greek eating habits, sacrificial customs, and dietary restrictions in relation to their religious and philosophical beliefs. Which animals were killed and eaten, which not—and which kinds or parts of animals were especially significant for religious purposes? What vegetables and fruits were sacred or specially valued? How were foods to be cooked, for religious or non-religious purposes? Which foods were forbidden? Why? What was the relationship between medicine and religion in the realm of diet and food-preparation? What kinds of mythical narratives were told to "explain" Greek eating habits and sacrificial practices? And why did certain religious/philosophical sects advocate vegetarianism? We will read short excerpts from major Greek authors (all in English translation), including Homer, Hesiod, Herodotus, Euripides, Aristophanes, Hippocrates, Plato, Xenophon; and some visual material (vase paintings, archaeological remains, etc.). We'll also look at other ancient Near Eastern material for comparison.

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

Faculty web site: http://classics.berkeley.edu/people/faculty/person_detail.php?person=13

Classics 24, Section 2

Indiana Jones and the Elgin Marbles: The Myth and Reality of Archaeology (1 unit, P/NP)

Professor Kim Shelton

Tuesday 11:00-12:00, 104 Dwinelle Hall, CCN: 14736

What does someone need to be an archaeologist? A pith helmet? A leather jacket? A whip? Hollywood would like us to believe that treasure-hunting heroes are searching for treasure and saving the world in one of the most adventurous and romantic careers possible—archaeology. The reality is something quite different but even more interesting. Archaeology is the study of the human past, a window into the cultures and times from which the world of today developed. With insight into the lives of the ancients we learn a tremendous amount about ourselves and our future potential. Today archaeology is about history, art, science, cultural heritage and international law. To be an archaeologist you need to be inquisitive, imaginative and incredibly enthusiastic—especially about holding a simple object that someone dropped hundreds or thousands of years ago and using your mind like a time machine to meet that individual in the context of his life. This seminar will be an opportunity to analyze the romantic legends, figures and stereotypes of archaeology and to discover the exciting real elements and adventures of today's archaeologist.

Kim Shelton is a faculty member in the Department of Classics and the Director of the Nemea Center for Classical Archaeology. She has two excavation projects in Greece, including the UC Berkeley Excavations at the Sanctuary of Zeus at Nemea and at the prehistoric Bronze Age site of Mycenae. She began excavating at a very young age and has never looked back. Her experience includes field work in this country as well as twelve years of full-time research in Greece. Other important personal facts include her cats named after famous archaeologists and her favorite Halloween costume - what else? Indiana Jones, whip and all. For more information regarding Professor Shelton, please visit her faculty web page at <http://shelton.berkeley.edu>.

Faculty web site: <http://shelton.berkeley.edu>

Earth and Planetary Science 24, Section 1

Oceans in the News (1 unit, P/NP)

Professor Jim Bishop

Wednesday 10:00-11:00, 401 McCone Hall, CCN: 19033

Not one week goes by without major articles about the oceans in print/online media such as The San Francisco Chronicle, New York Times, etc. News items: Pollution?, An ice-free Arctic Ocean?, Law of the Sea?, Fisheries?, Economics and Commerce?, Sea Level Rise?, An ocean fix for the CO₂ problem?, Ecological discoveries? and more. We'll delve into the details of several of these focus areas over the course of the term. Students will be graded on active participation, short written assignments, and in-class team presentations. Participants will have an opportunity to experience the San Francisco Bay from the water. This year, we expect that at least 50% of the seminar will be devoted to exploring the multitude of ocean challenges (engineering to legal) surrounding the 2010 Gulf of Mexico oil leak. **The seminar will close within two weeks of the start of classes.**

Jim Bishop is a Professor in the Department of Earth and Planetary Sciences. His research focuses on understanding how the oceans sequester atmospheric carbon dioxide. He loves to go to sea and has logged about 1.5 years at sea during 32 oceanographic expeditions. For more information regarding Professor Bishop, visit his faculty webpage.

Faculty web site: http://eps.berkeley.edu/development/view_person.php?uid=212268

Education 24, Section I

The Role and Purposes of Intercollegiate Athletics at Berkeley (1 unit, P/NP)

Professors Karl Pister, Catherine Koshland and Derek Van Rheenen

Tuesday 4:00-5:00, 127 Dwinelle Hall, CCN: 23523

Field trip dates and arrangements will be discussed in class.

The intent of the seminar is to examine intercollegiate athletics at Berkeley in an historical context and to provide a forum for discussion of its current role and purposes. This will be accomplished by reading and discussing excerpts from selected books and reports that focus on policy or practices in intercollegiate athletics, supplemented by field trips to facilities and events. During the course of the semester a number of Berkeley faculty and staff who have had either administrative responsibility for athletic programs or have been involved in policy studies will join the seminar as guest participants. **Enrollment in this seminar is by instructor approval only. If you are interested in enrolling in this seminar, email Professor Derek Van Rheenen at dvr@berkeley.edu and tell him a little about yourself, your background and your interest in this course. Submissions should be no longer than one or two paragraphs. As of January 10, 2012, submissions are still being accepted for the remaining seats in this seminar.**

Karl Pister is Chancellor Emeritus, UC Santa Cruz, and Dean and Roy W. Carlson Professor of Engineering Emeritus, UC Berkeley. He received a B.S. and M.S. from UC Berkeley in Civil Engineering and a PhD from the University of Illinois in Theoretical and Applied Mechanics. He has served on many Senate Committees at Berkeley and Chaired the Academic Council of the statewide Academic Senate. He chaired the Task Force created by Chancellor Birgeneau to recommend how best to reduce the seismic risk of Memorial Stadium and to upgrade facilities for student athletes, as well as improve the integration of the stadium area with the remainder of the campus. Subsequently, he was appointed Senior Associate to the Chancellor for the Southeast Integrated Projects, of which the Student Athlete High Performance Center and the Memorial Stadium seismic upgrade project are the principal components.

Faculty web site: <http://www.ce.berkeley.edu/people/faculty/pister>

Catherine P. Koshland is the Vice Provost of Teaching, Learning, Academic Planning and Facilities at the University of California, Berkeley, and is the Wood-Calvert Professor in Engineering. She is a professor of Environmental Health Sciences in the School of Public Health and a Professor in the Energy and Resources Group. She joined the Berkeley faculty in 1984. Professor Koshland graduated with a B.A. in Fine Arts from Haverford College (where she played varsity field hockey for Bryn Mawr College), studied painting at the New York School of Drawing, Painting and Sculpture, and received her M.S. in 1978 and her Ph.D. in 1985 in Mechanical Engineering from Stanford University. She has served on numerous committees at Berkeley and during 2002-2003, she was the Chair of the Academic Senate. A member of the Haverford College Board of Managers since 1994, she has served as its Chair since 2009. As Vice-provost, she oversees strategic academic planning, and supports new initiatives and resource planning in the areas of teaching and learning. She chairs the program committees for each academic construction project, chairs the space allocation committee and serves as the liaison between academic units and administrative units on facilities issues and projects.

Faculty web site: <http://vpapf.chance.berkeley.edu/>

Dr. Derek Van Rheenen was a student athlete at Cal, where he earned a degree in Political Economy and German as an Academic All American. He played several years of professional soccer before returning to earn an M.A. in Education and a Ph.D. in Cultural Studies, also from UC Berkeley. Derek has been on the Berkeley faculty since 1997 and has been the Director of the Athletic Study Center on campus since 2001. He was inducted into the Cal Athletic Hall of Fame in 2008.

Faculty web site: <http://gse.berkeley.edu/faculty/dvanrheenen/dvanrheenen.html>

**Electrical Engineering and Computer Science 24, Section I
Gadgets Electrical Engineers Make (1 unit, P/NP)
Professor Jeffrey Bokor
Wednesday 10:00-11:00, 125 Cory Hall, CCN: 25238**

This seminar is intended to offer a taste of how the hardware that is powering the information age really works. Electrical engineers must invest considerable effort to learn their science and math fundamentals. Eventually, though, the fun comes in building innovative and practical gadgets. We will side-step the science and math and get right into the hardware. We'll take a look at what's inside some of today's most exciting products and technology as well as look ahead at the future products that are just around the corner. Our focus will be on hardware and we will see how much fun engineers can have using their hands other than by typing on a keyboard.

Jeffrey Bokor received the B.S. degree in electrical engineering from the Massachusetts Institute of Technology in 1975, and the M.S. and Ph.D. degrees in electrical engineering from Stanford University in 1976 and 1980, respectively. From 1980 to 1993, he was at AT&T Bell Laboratories where he did research on novel sources of ultraviolet and soft X-ray coherent radiation, advanced lithography, picosecond optoelectronics, semiconductor physics, surface physics, MOS device physics, and integrated circuit process technology. He held management positions as head of the Laser Science Research Department at Bell Labs in Holmdel, NJ, from 1987 to 1990, and head of the ULSI Technology Research Department at Bell Labs in Murray Hill, NJ, from 1990 to 1993. Dr. Bokor was appointed Professor of Electrical Engineering and Computer Sciences at the University of California at Berkeley in 1993, with a joint appointment at the Lawrence Berkeley National Laboratory (LBNL). In 2004, he was appointed as Deputy Director for Science at the Molecular Foundry at LBNL, a major new nanoscale science research center. His current research activities include novel techniques for nanofabrication, new devices for nanoelectronics, quantum information processing, extreme ultraviolet lithography, optical metrology, and Fourier optics. He is a fellow of IEEE, APS, and OSA.

Faculty web site: <http://www.eecs.berkeley.edu/~jbokor/>

**English 24, Section I
Bullets Across the Bay: Detective Narratives Set in San Francisco (to Coincide with Bancroft Library's Display in the Brown Gallery of Doe Library) (1 unit, P/NP)
Professor Richard Hutson
Wednesday 9:00-10:00, 203 Wheeler Hall, CCN: 28084**

Food for Thought dining arrangements and film screening dates and arrangements will be discussed in class.

Why are detective novels set in a place? San Francisco has provided a favorite setting for the detective story since the work of Dashiell Hammett, especially with the publication of *The Maltese Falcon* (1930). Of course, San Francisco is a city, but it is also a city that has been branded in certain ways. Detective writers take into account this fairly abstract sense of the meaning of San Francisco. And so we will look at some major detective stories set in San Francisco with its distinctive history and geography. Novels for the course are *The Maltese Falcon*, *Murder Loves Company*, and *Dead Midnight*. We will also screen some major films of detective narratives set in San Francisco, like Hitchcock's *Vertigo*, Siegel's *Dirty Harry*, and Wang's *Chan is Missing*. A short paper will be due at the end of the semester: students should pick a narrative and discuss the meaning of San Francisco for that novel or film. **I have in mind interested freshmen who are willing to read, screen and discuss very interesting stories with the city of San Francisco as an important character. This seminar is part of the Food for Thought Seminar Series.**

Richard Hutson is a Professor Emeritus of English and former Director of the American Studies Program. He divides his teaching between the English Department and the American Studies Program. He has a

Ph.D. in English and History from the University of Illinois, Urbana-Champaign. Professor Hutson has been at UC Berkeley since 1964, interrupted by a year of teaching at the University of Leeds in northern England. His recent publications include a number of essays on filmed Westerns and on writings from the late nineteenth- and early twentieth-century U.S.

Faculty web site: <http://english.berkeley.edu/profiles/40>

English 24, Section 2
Reading Walden Carefully (1 unit, P/NP)
Professor Mitchell Breitwieser
Monday 2:00-3:00, 14 Haviland Hall, CCN: 28775

We will read Thoreau's *Walden* in small chunks, probably about thirty pages per week. This will allow us time to dwell upon the complexities of a book that is much more mysterious than those who have read the book casually, or those who have only heard about it, realize. We will also try to work some with online versions of the book, using the wordsearch command to identify words such as "woodchuck" or "dimple" that reappear frequently, in order to speculate on patterns Thoreau is trying to establish. Regular attendance and participation, along with a loose five-page essay at the end, are required.

Mitchell Breitwieser has taught American literature in the Berkeley English department for thirty-one years.

Faculty web site: <http://english.berkeley.edu/profiles/19>

Environmental Science, Policy, and Management 24, Section 1
Issues in Natural Resource Conservation (1 unit, P/NP)
Professor David Wood
Friday 9:00-10:00, 106 Mulford Hall, CCN: 29001

There is one optional field trip to a Bay Area location on a Saturday or Sunday 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; global warming; 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.

Faculty web site: <http://ecnr.berkeley.edu/facPage/disFP.php?l=645>

Environmental Science, Policy, and Management 24, Section 2
Insects, Ticks and Human Diseases (1 unit, LG)
Professor Robert Lane
Wednesday 3:00-4:00, 410 Wellman Hall, CCN: 29004

This course is intended to examine the impact of insects, ticks, and the disease agents they transmit on human society. A few lectures will be presented on such globally important diseases as Lyme disease and plague. Various laboratory procedures used to study the relationship of ticks to animal disease agents will

be demonstrated. Students will be expected to participate in group discussions of selected readings. **This course is intended for any student who wants to learn about infectious diseases transmitted to people by either insects or ticks, and especially those students who are interested in the biomedical sciences (e.g., medicine, veterinary medicine, public health).**

Professor Lane is a medical entomologist and parasitologist whose research team studies the ecology, epidemiology and control of tick-borne diseases, especially Lyme disease. Besides the freshman seminar, he has taught several other lecture, field and laboratory courses in medical/veterinary entomology and parasitology at both the undergraduate and graduate level.

Faculty web site: <http://ecnr.berkeley.edu/facPage/disFP.php?l=611>

German 24, Section I

Close Looking: German Art at the BAM (1 unit, P/NP)

Professor Karen Feldman

Friday 1:00-2:00, Berkeley Arts Museum Conference Room, CCN: 37269

This seminar will examine—and above all seek to enjoy—fifteen works of art at the Berkeley Art Museum, from the sixteenth to the twenty-first century. We will consider the works in their historical contexts, including political, social and religious themes and influences, and also in sheerly formal terms, i.e. how are they composed, how do they affect the viewer, what makes them beautiful or otherwise impressive? There will be some introduction of aesthetic theories and concepts from philosophy of art. **There are no prerequisites to this course. The course hopes to attract students who like to look at art and also think about concepts and theories related to art.**

Karen Feldman is Associate Professor of German. She works on aesthetics, critical theory and literary theory.

History 24, Section I

HIV/AIDS and History (1 unit, P/NP)

Professor John Lesch

Monday 11:00-12:00, 203 Wheeler Hall, CCN: 39183

In this course we will explore the history of HIV/AIDS through short readings, films, and weekly discussion. Topics may include the experiences of patients and doctors in the early AIDS epidemic in the U.S., AIDS politics in the U.S. and the role of AIDS activism, the discovery of HIV and controversies over causation, research on drugs treatments and vaccines, the global spread and global politics of HIV/AIDS, the roles of the pharmaceutical industry and of international health organizations, and comparison of HIV/AIDS with other diseases, past and present. **This course is open to any freshman student with an interest in the topic.**

Professor Lesch has a long-standing interest in the history of the life sciences and medicine. His publications include *The First Miracle Drugs: How the Sulfa Drugs Transformed Medicine* (Oxford) and other works on eighteenth- and nineteenth-century science and medicine.

Faculty web site: <http://history.berkeley.edu/faculty/Lesch/>

History of Art 24, Section I
Socially Engaged Art and the Future of the Public University (1 unit, P/NP)
Professor Gregory Levine
Monday 10:00-11:00, 332 Giannini Hall, CCN: 04871

Food for Thought dining arrangements will be discussed in class.

Co-taught by a Bay Area artist, Scott Tsuchitani, and UC Berkeley art historian, Professor Gregory Levine, this seminar examines “socially engaged art,” an emerging form of creative public practice. It introduces artists, collectives, and crowd-sourced participants employing diverse themes, imageries, materials, technologies, performances, sites, tactics, and philosophies. Whether it takes the form of a bold action in a discrete but visible space, or a long-term nationwide campaign, socially engaged art suggests a unifying premise: namely, that performative, public, and frequently participatory cultural work can effectively intervene in the status quo to bring about meaningful social transformation. The seminar therefore asks, “Can art create social change, help achieve social justice?” How is socially engaged art different from, on the one hand, what we generally think of as political activism and, on the other, art with political content viewed in museums and art galleries? We will also examine ongoing debates around the ethics, aesthetics, and effectiveness of socially engaged art, which by its own nature is so resistant to definition and containment that neither academics nor practitioners can agree on a name for it (other names include interventionist art, participatory art, dialogic art, social sculpture, relational aesthetics) and critics and advocates alike dispute its status as “art.” A recent focus of activity in socially engaged art is the future of the public university in a time of global neoliberalism and degradations of access and diversity. This suggests an immediate point of inquiry for this seminar: what sorts of art and processes of cultural production and encounter might we imagine, as we imagine the future of UC and public higher education? **We invite students who are interested in the arts and society—participants need not think of themselves as “artists” or “activists.” We also seek students interested in the critical conversation about public higher education taking place right now in local and global contexts. This seminar is part of the Food for Thought Seminar Series.**

Gregory Levine is Associate Professor in the History of Art. His teaching and research focus on various fields including East Asia, Buddhist visual culture, and histories of collecting. An appointed member of the Berkeley Faculty Association, he is active in conversations around the future of UC. For more information regarding Professor Levine, visit http://arthistory.berkeley.edu/Faculty_Levine.html.

Scott Tsuchitani is a visual artist based in San Francisco whose interdisciplinary cultural interventions have impacted art, academic, and public discourse locally and internationally. He has exhibited his work in New York and Los Angeles, as well as the SFMOMA and de Young Museum in San Francisco. He has been lecturing on art and intervention at colleges and universities around the Bay Area since 2005. For more information regarding Mr. Tsuchitani, visit <http://www.scotttsuchitani.com/>.

Integrative Biology 24, Section I
The Darwinian Revolution (1 unit, LG)
Professor Brent Mishler
Thursday 10:00-11:00, 4110 Valley Life Sciences Building, CCN: 43003

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

Brent Mishler is Director of the University and Jepson Herbaria at the University of California, Berkeley, as well as a professor in the Department of Integrative Biology, where he teaches phylogenetic systematics and plant diversity. He received his Ph.D. from Harvard University in 1984, and was on the faculty at Duke University in Durham, NC for nine years before moving to UC Berkeley in 1993.

Faculty web site: <http://ucjeps.berkeley.edu/people/mishler.html>

Integrative Biology 24, Section 10
Ethnobiology, Nutrition, and Global Food Systems (1 unit, P/NP)
Dr. Thomas Carlson
Wednesday 10:00- 11:00, 5053 Valley Life Sciences Building, CCN: 44953

In this seminar we will read Michael Pollan's Omnivore's Dilemma and other select literature on related topics. We will explore the ethnobiological systems around the world that generate thousands of different species of plants and animals eaten by humans. We will examine the historical, cultural, commercial, and biological factors that have resulted in the worldwide consumption of certain plant (e.g., corn) and animal (e.g., cow) species. We will also compare the nutritional qualities, health effects, and carbon footprint of industrial food, organic food, locally grown food, and food that is hunted or gathered.

Dr. Carlson is an ethnobotanist, botanist, and physician who has conducted food and medicinal plant research with numerous different ethnolinguistic groups in Africa, Asia, Oceania, and the Americas. He has published articles in a spectrum of different disciplines including pharmacology, chemistry, experimental biology, nutrition, botany, ethnobotany, and anthropology. Professor Carlson teaches courses in medical ethnobotany, botany, California plant life, evolutionary medicine, and human reproduction.

Faculty web site: http://ib.berkeley.edu/research/interests/research_profile.php?person=40

Integrative Biology 24, Section 2
Animal and Human Navigation: Which Way Is Home? (1 unit, LG)
Professor Roy Caldwell
Monday 2:00-3:00, 5192 Valley Life Sciences Building, CCN: 43006

A homing pigeon can return to its loft after being shipped one thousand km to a place it has never been. A whale spends its summers in the Bering Sea and its winters near Maui. A female sea turtle returns for the first time to a beach where she hatched thirty years earlier to lay her own eggs. A Monarch butterfly flies south two thousand km to spend the winter in a secluded grove in central Mexico. A limpet returns forty cm to a favorite depression in a rock. The abilities of animals to navigate have intrigued biologists for decades. We will read a series of papers describing how animals navigate and how they use such methods as landmarks, celestial cues, and geomagnetic fields to determine where to go and what route to follow. We will also attempt to replicate experiments that suggest that humans are able to navigate using geomagnetic fields. At the end of the semester, each student will be required to write a short review paper discussing navigation and orientation by an animal of his or her choice. This seminar is as much about the process of science as it is about animal navigation. We will first explore examples of animal navigation and how the underlying mechanisms are being researched. We will then examine experiments that suggest a human navigation ability based on geomagnetic input, and finally we will design an experiment to test if humans have the ability to detect and/or use a geomagnetic sense as do many other animals. **The seminar is designed for students interested in biological research. 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.

Faculty web site: http://ib.berkeley.edu/research/interests/research_profile.php?person=38

Integrative Biology 24, Section 3

How and Why Do Birds Sing (1 unit, P/NP)

Professor George Bentley

Tuesday 2:00-3:00, 4110 Valley Life Sciences Building, CCN: 43009

Do you ever wonder why some birds sing and others just call? Would you like to know how songbirds produce such melodious tunes? What about the dawn chorus? Sexual attraction? Aggression? It's just the day-to-day life of songbirds. Come and learn about the anatomy and physiology of birdsong, from the specialized organs to highly evolved brains. Find out how bird song can cause hormones to surge. This seminar will cover the hows and whys of vocal communication in birds with an emphasis on what classic and cutting-edge research has taught us.

George Bentley received his B.Sc. in biology (1993), and his Ph.D. in zoology (1996) at the University of Bristol in the United Kingdom. Following receipt of his doctorate, Dr. Bentley joined the Behavioral Neuroendocrinology Group at Johns Hopkins University, initially as a postdoctoral fellow and later as an associate research scientist. In January 2000, Dr. Bentley moved to Professor John Wingfield's laboratory at the University of Washington as a research associate in the Departments of Psychology and Biology. Dr. Bentley moved to Berkeley in June of 2005, where he is an Assistant Professor in the Department of Integrative Biology and his lab focuses on how the brain detects environmental cues and turns them into hormonal signals. These signals in turn affect the behavior and physiology of the organism itself, or organisms to which the behavior is directed. For example, a male bird's song can cause a female to solicit copulation and change her hormonal status. Exactly how the brain performs this feat is largely unknown, but birds are an excellent model for this type of research as they have extravagant auditory and visual displays. The research in Dr. Bentley's lab is mostly performed on birds, but is not limited to this vertebrate class. Current projects in the lab involve sheep, horses, rats, mice, hamsters and humans; many of these projects are in collaboration with other labs around the world (Japan, New Zealand, Germany, United Kingdom). Undergraduates are especially encouraged to get involved in active research projects. Currently, there are nine undergraduates working in the Bentley lab on neuroendocrine mechanisms of regulation of reproduction and on the neural basis of song behavior. For more information regarding Dr. Bentley, visit http://ib.berkeley.edu/research/interests/research_profile.php?person=17.

Faculty web site: http://ib.berkeley.edu/research/interests/research_profile.php?person=17

Integrative Biology 24, Section 4

Victorian Literature and the Idea of Evolution (1 unit, LG)

Professor Kevin Padian

Tuesday 1:00-2:00, 5192 Valley Life Sciences Building, CCN: 43012

Film screening dates and arrangements will be discussed in class.

Evolution is one of the great and most pervasive ideas to come out of the Enlightenment. But what was the response to this great idea in literature of the time? We will read excerpts from Darwin's *Origin of Species* and discuss how this changed the Victorian worldview(s). Then we'll read Thomas Hardy's *Tess of the D'Urbervilles*, published 120 years ago, perhaps the greatest novel ever to embody evolutionary concepts in its core. We'll finish with John Fowles's (1969) *The French Lieutenant's Woman*, a novel that plays with the conventions of both science and literature. If time permits we can arrange showings of films based on these novels. This course requires that you read three books and be prepared each week to offer your thoughts, ideas, and questions. A notebook, some writing, and strong initiative in participation are required. **You don't need any preparation for this course except an interest in the subject and the desire to understand how science and literature can explore the**

same themes. This course is designed to be taken for a letter grade. Students who elect to take this seminar should enroll under the letter grade option.

Kevin Padian has been teaching at Berkeley for thirty years, mostly courses in evolution, paleontology, and the history of these fields. Research in his lab centers on how large-scale changes get started in evolution, particularly the major new adaptations in vertebrates such as flight, the emergence of dinosaurs, and the evolution of unusual structures and behaviors. He also spends a lot of time on the creation-evolution issue, educating the public about what science is and isn't.

Faculty web site: http://ib.berkeley.edu/people/faculty/person_detail.php?person=166

**Integrative Biology 24, Section 5
Plants of the UC Berkeley Botanical Garden (1 unit, P/NP)
Professor David Ackerly
Thursday 12:00-2:40, UC Berkeley Botanical Garden, CCN: 43015**

The class will meet on Thursdays at 12:00 p.m. at the Hearst Mining Circle to take the shuttle bus to the Botanical Garden, and return to the Mining Circle by 2:40 p.m. The nine Thursday meeting dates are January 19, January 26, February 9, February 16, March 8, March 15, March 22, April 19 and April 26, 2012. The seminar will meet approximately every two weeks.

The UC Botanical Garden is home to thousands of wild-collected plant species from all over the world. In this seminar, we will spend each class in a different part of the garden and adjoining areas along Strawberry Creek, examining plants from California, the New World deserts, the tropics, and more. Based on our observations, we will pose questions about the diversity of plant form and function: why are some leaves small and others big? Why are desert plants often succulent? How did cactus get their thorns? In the final several classes, students will work in small groups to conduct independent mini-projects, and then share the results with the entire group. Our goal is to learn how scientists turn simple observations into hypotheses and research projects, and at the same time to enjoy the great diversity of the Botanical Garden's plant collection. **This seminar is intended for students who enjoy being outdoors and are curious to learn more about plant ecology and evolution. This is a great introduction for possible Integrative Biology majors to learn more about the department. Enrollment is limited to fifteen freshmen.**

Professor Ackerly joined the faculty at UC Berkeley in 2005. His research focuses on the ecology and evolution of plant diversity, focusing on the form and function of woody plants. He has worked in temperate and tropical forests of New England, Japan, Brazil and Mexico, and currently focuses his research on the flora of California.

Faculty web site: <http://ib.berkeley.edu/labs/ackerly/index.html>

**Integrative Biology 24, Section 6
Humans Evolving (1 unit, LG)
Professor Leslea Hlusko
Wednesday 2:00-3:00, 5192 Valley Life Sciences Building, CCN: 43018**

In this seminar we will read and critically review a recently published non-fiction book written for the general public about human evolution /human biology. Each week we'll read and critically evaluate a chapter. Students will also be asked to do research into sections of the book to further evaluate the author's claims and interpretations. The goals of the course are 1) to develop the critical thinking skills needed to understand biology as it is presented to the general public, and 2) to develop the skills needed to maximize one's undergraduate experience here at UC Berkeley.

Professor Leslea Hlusko is interested in the genetic basis of mammalian skeletal variation and evolution with a focus on primates. Her research includes paleontological field projects in Tanzania and Ethiopia as well as genetics research done in collaboration with the Southwest Foundation for Biomedical Research. As such, she approaches human biology from the perspectives of paleontology and biomedicine. She received her undergraduate degree from the University of Virginia and a Ph.D. from Penn State University. Professor Hlusko was a Professor at the University of Illinois for four years before moving to Berkeley in 2004. Please feel free to visit her lab web site for more information <http://ib.berkeley.edu/labs/hlusko/>.

Integrative Biology 24, Section 7

Islands as Model Systems (1 unit, P/NP)

Professor Patrick V. Kirch

Wednesday 9:00- 10:00, 4110 Valley Life Sciences Building, CCN: 43021

Oceanic islands offer outstanding model systems for investigating and understanding many kinds of ecological processes. In a model system, fundamental variables can be readily identified, and the mechanisms of interaction among them tested. While model systems are by definition simple, they nonetheless contain all of the essential elements found in more complex systems, or in systems that operate on a larger scale, hence their widespread application and utility. Islands offer model systems for ecosystem studies due to the small number of well-defined "state factors" that display especially clear properties, such as biogeochemical gradients, strongly orthogonal variation in climate, and restricted flora and fauna. Islands also offer model systems for investigating and understanding human cultural evolution, including the complex interactions between human populations and the ecosystems they inhabit. This seminar will explore the potential of island model systems to aid in our understanding both of natural evolutionary and ecological processes, and of human-environment interactions. The seminar will draw particularly on recent and on-going research in Hawaii and other Polynesian island groups.

Patrick V. Kirch is the Class of 1954 Professor of Anthropology and Integrative Biology. He has carried out archaeological and paleoecological research throughout the islands of the Pacific. His research focuses on the dynamic interactions between humans and the island ecosystems they inhabit.

Faculty web site: <http://arf.berkeley.edu/projects/oal/index.html>

Integrative Biology 24, Section 8

Randomness and Heritable Memories in Biology (1 unit, LG)

Professor Han Lim

Monday 11:00- 12:00, 4110 Valley Life Sciences Building, CCN: 43023

So you think you are the product of your genes and your environment? Well, that's only part of the picture. In this seminar series we will discuss how random biochemical events and the experiences of previous generations can shape an organism's phenotype. Learn why some decisions that determine an organism's fate are left to chance and how this impacts our strategies for preventing and treating bacterial infections. Discover how single cells can inherit memories. Find out how your grandparents' environment may have played a role in shaping your development.

Han Lim is in the Department of Integrative Biology and teaches systems biology to biology and bioengineering majors. Dr Lim trained in medicine and surgery in Australia and has a PhD in pediatrics from the University of Cambridge. His lab studies gene regulation in bacteria using a combination of experiments and mathematical modeling in order to obtain insight into the fundamental processes involved in gene regulation, to better understand infectious disease and to uncover design principles that can be applied to synthetic biology.

Faculty web site: http://ib.berkeley.edu/people/faculty/person_detail.php?person=274

Integrative Biology 24, Section 9

Energy, Food, Fun, Money, Sex and Drugs: Changing the Course of the Sixth Mass Extinction (1 unit, P/NP)

Professor Anthony Barnosky

Tuesday 2:00-3:00, 5053 Valley Life Sciences Building, CCN: 44947

Imagine that three quarters of all the living things you now take for granted were dead. That would be a mass extinction—when more than 75% of Earth's species die off in a geological eye blink. Luckily mass extinctions are rare. They've happened only five times in the 550 million years that diverse life has occupied Earth. Unluckily, it's beginning to look like another one is happening right now. But this Sixth Mass Extinction is different, because one species, us, is behind it all. It is driven by human needs and desires, which presents a conundrum: How do we provide for the needs and wants of people while still providing for the needs of other species? Does working towards a high quality of life for more and more people necessarily doom other species to extinction? Or is there something we can actually do to avoid becoming the killers of our world? This seminar will explore these questions, by looking at both the causes of and potential solutions to the current extinction crisis. We will examine how humanity's appetite for energy, food, fun, money, sex, and drugs is behind the current extinction crisis, and how using that knowledge can help us to avoid causing the Sixth Mass Extinction. **This course is designed for students who want to learn how they can help shape the future, especially those interested in the relationship between humanity and nature.**

Since 1990, Anthony Barnosky has been on the faculty at the University of California, Berkeley, where he currently holds the posts of Professor of Integrative Biology, Curator of Fossil Mammals in the Museum of Paleontology, and Research Paleoecologist in the Museum of Vertebrate Zoology. Author of numerous scientific publications, op eds, blog posts, and the book *Heatstroke: Nature in the Age of Global Warming*, he is a paleoecologist who studies how global change impacts species and ecosystems. Further information is available from his website: <http://ib.berkeley.edu/labs/barnosky/adbprofile.htm>

Faculty web site: <http://ib.berkeley.edu/labs/barnosky/>

Journalism 24, Section 1

London Calling: Producing News for the BBC (1 unit, LG)

Professor William J. Drummond

Tuesday 2:00-3:30, 104 North Gate Hall, CCN: 48003

This seminar will meet for ten weeks, beginning February 7, 2012 and ending April 10, 2012. Food for Thought dining arrangements will be discussed in class.

The BBC (British Broadcasting Co.) is one of the most distinguished and comprehensive news organizations in the world. You don't have to be British to be a fan. The BBC, in cooperation with Oxford University Press, has launched an on-line College of Journalism. This seminar will use the College of Journalism (CoJo) to explore the inner workings of how the BBC covers the news around the world. It will examine the many tutorials dealing with questions of ethics, bias, and fairness, as framed by the management of the BBC. Students will also get a glimpse of the hands-on, practical techniques used by BBC reporters, editors and producers to turn out their news product. CoJo is audio, visual and textual. The goal of the course is to introduce students to the internal workings of a great news organization and to provide a basis for contrast with the policies and practices of US media companies. **Students are required to subscribe to the BBC's College of Journalism website. Instructions on registering will be provided. This seminar is part of the Food for Thought Seminar Series.**

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.

Faculty web site: <http://journalism.berkeley.edu/faculty/drummond/>

Journalism 24, Section 2

Journalism on Film: Ethical and Moral Dilemmas (1 unit, P/NP)

Senior Lecturer Joan Bieder

Wednesday 10:00-12:30, 101 North Gate Hall, CCN: 48006

This seminar will meet for seven weeks, beginning February 15, 2012 and ending April 4, 2012.

This course will view films and documentaries focusing on the ethical and moral dilemmas they pose to journalists and to ordinary people involved. It will look at storytelling techniques and key issues facing media today. **Prefer students with interest in journalism, media and storytelling. Enrollment is limited to twelve students.**

Joan Bieder is a Senior Lecturer and Associate Dean at the Graduate School of Journalism where she teaches courses in television news reporting, writing, producing and storytelling. Last year she taught a reporting travel course on Israel and the Palestinian territories for broadcast and print students. After several years teaching in the news department of the television station in Singapore, she published a history book in 2007 entitled The Jews of Singapore. Before coming to Berkeley, she was an ABC -TV network news producer in New York where she taught at Columbia University's Graduate School of Journalism.

Faculty web site: <http://journalism.berkeley.edu/faculty/bieder/>

Journalism 24, Section 3

Hyperlocal Multimedia Workshop in the Mission District (1 unit, LG)

Professor Lydia Chavez

Wednesday and Sunday, see dates and times below, see locations below, CCN: 48008

This seminar will meet on three dates. It will meet on Wednesday, January 18, 2012 from 6:00 - 7:00 p.m. in 127 North Gate Hall for a planning and information meeting. It will meet on two Sundays, February 5, 2012 and February 12, 2012, from 10:00 a.m. - 6:00 p.m. in the Mission District office at 400 Treat Avenue, at the corner of 17th Street. (The office is close to the 16th Street BART station.)

Since the fall of 2008, Lydia Chavez has run a news site, Mission Loc@l, in San Francisco's Mission District. It's a hyperlocal lab and training site for graduate students, residents and undergraduate students. In this freshman seminar, students will learn about hyperlocal news sites and the basics of photography and video, and will bring the two together in one-minute reported projects. Students who want to focus on a writing project will be able to do so. **Enrollment is limited to twelve freshmen. To secure their seat in this seminar, enrolled students must attend the one-hour**

**planning and information meeting on Wednesday, January 18, 2012 at 6:00 p.m.
Failure to attend either or both of the Sunday sessions will result in a failing grade.**

Lydia Chavez, a former reporter for The New York Times, has written books and articles on affirmative action, Cuba and immigration.

Faculty web site: <http://journalism.berkeley.edu/faculty/chavez/>

**Letters and Science 24, Section I
Classic Movies as Visual Art (1 unit, P/NP)
Professor David Wright
Thursday 3:00-6:00, 104 Moffitt Library, CCN: 51805**

This seminar will meet twelve weeks, beginning January 19, 2012 and ending April 19, 2012. Participation in the first class is essential. Food for Thought dining arrangements will be discussed in class.

This seminar will devote twelve Thursday afternoons to looking thoughtfully at classic movies, treating them as visual art, analyzing particularly the camera work and editing, also the staging and lighting, always seeking to understand how these aspects contribute to the total expressive effect of the movie. Each week one movie will be analyzed in depth and students will write a brief report on a specific aspect of it. Usually extracts of another movie or shorts will also be shown, to expand the students' knowledge of the medium. In the second half of the course, when movie-making techniques have matured, there will be more discussion of the political and social context of each movie. The movies analyzed will range from *The Last Man* (Germany 1924) to *Citizen Kane* (Orson Welles 1941) to *Bicycle Thieves* (Italy 1949), all of them general release movies widely seen in their time. The movies will be projected on a large screen, normally from DVD, allowing us easily to go back to specific episodes for detailed analysis and discussion. No reading; no other written work. **This seminar is part of the Food for Thought Seminar Series.**

David H. Wright has been a devoted still photographer since childhood and continues to make all the slides for his lectures on art and architecture. He completed the undergraduate requirements in Physics at Harvard soon after the War, but switched to Fine Arts, stimulated by his photography. He spends a couple of months a year traveling in Europe for his research, incidentally visiting many of the venues of the movies studied in this course, and deepening his knowledge of the social history reflected in them, which he will seek to explain.

Faculty web site: http://arthistory.berkeley.edu/Faculty_Emeritus.html

**Linguistics 24, Section I
Language Myths (1 unit, P/NP)
Professor Larry Hyman
Monday 1:00-2:00, 125 Dwinelle Hall, CCN: 52239**

Everyone has preconceptions about language in general and languages in particular. But are these accurate? In this course we will discuss and evaluate a number of common language myths such as these: Are all languages equally complex? Are some more logical? More beautiful? Is there such a thing as a primitive language? Do some people speak more grammatically than others? Is the English language undergoing a process of decay? We will draw on facts from English, other languages that may be familiar to participants, and lesser known languages which bear on the above and other questions. **No linguistic or other prerequisites are required. All interested students are welcome, especially students who have a fascination with language and/or languages.**

Larry M. Hyman is a Professor of Linguistics at Berkeley where he chaired the Department of Linguistics from 1991 to 2002. He obtained his Ph.D. at UCLA in 1972 and subsequently taught at USC until coming to Berkeley in 1988. His research centers around the study of sound systems (phonology) and grammar, particularly within Bantu and other Niger-Congo languages in Africa. His publications include several books and numerous articles in the major journals in general and African linguistics. One of his long-standing interests is the study of tone languages, as found in Africa, Asia, Meso-America and elsewhere.

Faculty web site: http://linguistics.berkeley.edu/people/person_detail.php?person=19

Linguistics 24, Section 2
Language Myths (1 unit, P/NP)
Professor Sharon Inkelas
Monday 1:00-2:00, 250 Dwinelle Hall, CCN: 52241

Everyone has preconceptions about language in general and languages in particular. But are these accurate? In this course we will discuss and evaluate a number of common language myths such as these: Are all languages equally complex? Are some more logical? More beautiful? Is there such a thing as a primitive language? Do some people speak more grammatically than others? Is the English language undergoing a process of decay? We will draw on facts from English, other languages that may be familiar to participants, and lesser known languages which bear on the above and other questions. **No linguistic or other prerequisites are required. All interested students are welcome, especially students who have a fascination with language and/or languages.**

Sharon Inkelas is Professor and Chair of the Linguistics Department. She received her PhD in Linguistics from Stanford University in 1989. Her research focuses on phonology (sound systems) and morphology (word structure) of the world's languages, focusing on cross-linguistic patterns and differences. She has also conducted research in child language acquisition.

Faculty web site: <http://www.linguistics.berkeley.edu/~inkelas/>

Materials Science and Engineering 24, Section 2
Physics and Materials Science of Skateboarding (1 unit, P/NP)
Professor Daryl Chrzan
Thursday 10:00-11:00, 14 Haviland Hall, CCN: 53203

The popularity of skateboarding and other extreme sports is increasing at a rapid pace. The sports are termed extreme in part because they place the participants and their equipment under extreme conditions. This seminar will explore the extreme conditions associated with skateboarding, and how materials science has been used to evolve the original sidewalk surfers into the modern-day skateboard. Topics to be discussed include the physics of skateboarding (including an analysis of the inevitable slam) and the implications of this physics for the design of wheels, boards, bearings, trucks and safety equipment. The course includes experiments to measure rolling friction and the breaking strength of skateboards. **There are no special prerequisite constraints—just an interest in skateboarding, physics and materials science.**

Professor Daryl C. Chrzan received his Ph. D. in Physics, specializing in condensed matter theory, from UC Berkeley in 1989. From 1990 to 1995, he was a Senior Member of the Technical Staff at Sandia National Laboratories, Livermore. In 1995, Professor Chrzan joined the (now) Department of Materials Science and Engineering at UC Berkeley. His research emphasizes the prediction of the physical properties of metals and semiconductors based on knowledge of the atoms composing the materials. He has published over 70 papers, and presented over 40 invited talks at universities, laboratories, and international meetings. Professor Chrzan spent much of his youth on a skateboard, and can often be found carving the bowls at nearby skateparks.

Faculty web site: <http://cms.mse.berkeley.edu>

Materials Science and Engineering 24, Section 3
Materials and Weapons of War through History (1 unit, P/NP)
Professor J. W. Morris Jr.
Friday 9:00-10:00, 348 Hearst Mining Building, CCN: 53205

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

Professor Morris has been a member of the Berkeley faculty since 1971, and was Program Leader for the Advanced Metals Program at the Lawrence Berkeley Laboratory for almost twenty years. He has taught the introductory course Material Science and Engineering 45 for most of that period, and is a recipient of the University's Distinguished Teaching Award.

Faculty web site: http://www.mse.berkeley.edu/bio_morris.htm

Mathematics 24, Section 1
Calculus for People (1 unit, P/NP)
Professor Paul Chernoff
Tuesday 11:00-12:30, 891 Evans Hall, CCN: 53915

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

This seminar is about the guts of calculus. We will discuss the key concepts, differentiation and integration, from an intuitive viewpoint. In addition, the seminar will provide a survey of some of its applications, from geometry to planetary motion. The goal is a clear, clean understanding of what calculus is about, and how it's used. **Required: A good, comfortable understanding of high school algebra. No knowledge of calculus. But this seminar is also intended to interest students who have taken some calculus in high school.**

Professor Paul Chernoff: I originally wanted to go to the moon, but that didn't work out. I am interested in physics, especially quantum mechanics, and much of my research work is in related areas of mathematics. I enjoy teaching, and have received several awards.

Faculty web site:
http://math.berkeley.edu/index.php?module=mathfacultyman&MATHFACULTY_MAN_op=sView&MATHFACULTY_id=21

Mathematics 24, Section 2
What is Happening in Math and Science? (1 unit, P/NP)
Professor Jenny Harrison
Tuesday 3:00-4:00, 891 Evans Hall, CCN: 53917

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 especially when controversial or challenging issues arise, e.g., cloning of organs, string theory, stem cell research, and geopolitics of global warming. Students are encouraged to think of applications and

possibilities of new research projects. Brainstorming and creative thinking are encouraged! **This seminar is intended for students who love math and science and want to discuss the latest developments in an atmosphere that fosters creative thought. 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 a new quantum calculus that applies equally to charged particles, fractals, smooth surfaces, and soap films. Applications of this theory to sciences may arise during this seminar.

Faculty web site: http://en.wikipedia.org/wiki/Jenny_Harrison

**Mechanical Engineering 24, Section I
Art and Science on Wheels (1 unit, P/NP)
Professor Benson Tongue
Wednesday 1:00-2:00, 14 Haviland Hall, CCN: 55403**

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.

Faculty web site: <http://www.me.berkeley.edu/faculty/tongue/>

**Molecular and Cell Biology 90A, Section I
Sampling the Performing Arts at Berkeley (1 unit, P/NP)
Professor Jack Kirsch
Tuesday 6:00-7:00, 521 Stanley Hall, CCN: 57859**

Food for Thought dining arrangements and event dates and arrangements will be discussed in class.

We will attend about four campus events, which will include at least one play, dance, and film. We will meet the week preceding the event for a discussion of the work, and will follow our attendance with a class discussion the following week. There will be some assigned reading. **I would like a mix of students ranging from those who have had little exposure to the subject matter to some who have often attended plays, dance performances, and who enjoy serious or vintage films. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students. This seminar is part of the Food for Thought Seminar Series.**

Jack F. Kirsch is a professor of the Graduate School. He is associated with both Molecular and Cell Biology and the Chemistry Departments. He joined the campus in 1964, and has had a lifelong interest in the performing arts and literature as well as in science.

Faculty web site: <http://chem.berkeley.edu/faculty/kirsch/index.php>

Molecular and Cell Biology 90B, Section I
Insulin as a Window on Discovery in Biology (1 unit, P/NP)
Professor Randy W. Schekman
Tuesday 3:00-4:00, 31 Evans Hall, CCN: 57862

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. The Discovery of Insulin by Michael Bliss will be available in the student bookstore and Invisible Frontiers: The Race to Synthesize a Human Gene by Stephen S. Hall will be provided in class because it is out of print. 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.**

For additional information about insulin and its status as the first "miracle drug", use the related web site link below to access an article that appeared recently in the New York Times:

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.

Faculty web site: <http://www.hhmi.org/research/investigators/schekman.html>

Molecular and Cell Biology 90D, Section I
Human Viruses and Diseases (1 unit, P/NP)
Professor P. Robert Beatty
Thursday 11:00-12:00, 106 Mulford Hall, CCN: 57868

Food for Thought dining arrangements will be discussed in class.

This seminar will focus on human diseases caused by both RNA and DNA viruses. The course will begin with lectures by the instructor to introduce virology and immunology. The remainder of the course will be student-led discussions of specific viruses. **This seminar is part of the Food for Thought Seminar Series.**

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 is focussed on dengue virus immunology especially testing drugs and vaccines to protect against severe disease. He teaches immunology classes at Cal in the Department of Molecular and Cell Biology.

Molecular and Cell Biology 90E, Section 1
Gender and The Brain (1 unit, P/NP)
Professor Walter Freeman
Friday 12:00-1:00, 111 Kroeber Hall, CCN: 57871

This seminar will explore the interface between science and popular science, with particular concern for the properties of brains relating to gender. This is not merely a seminar on brain science. Our aim is to gain experience in recognizing and tracking down factoids and questionable information, which abound in popular literature on brains. The books you will read, Louann Brizendine's "The Male Brain" and Mary Roach's "Bonk" were written by a clinician and a journalist for readers like yourselves, who are interested but not trained in science. They are easy and fun to read. Some scientists have criticized the books for being shallow, anecdotal – and wrong. Are these criticisms valid? Your assignment will be each week to read a chapter and find a statement or claim that should be challenged. Begin by reading the Amazon reviews of her book. Use notes in Appendices and References; Wikipedia; and the books on Reserve. Each week write 200-300 words and distribute it to the class by e-mail the Wednesday before each weekend. Come to class prepared to tell us what you found and what you concluded. Be prepared to debate. You are encouraged to work in groups, but you must write your own abstracts, which I will accumulate to determine your grade. Be sure to insert the code 90E12 in the Subject line of all e-mail messages.

Walter J Freeman studied physics and mathematics at MIT, electronics in the US Navy in WWII, philosophy at the University of Chicago, medicine at Yale University, internal medicine at Johns Hopkins, and neuropsychiatry at UCLA. He has taught brain science in the University of California, Berkeley since 1959 and is now Professor of the Graduate School. He received his M.D. cum laude (1954), the Bennett Award in Biological Psychiatry (1964), Guggenheim (1965), NIMH MERIT Award from (1990), and Pioneer Award from IEEE Neural Networks Council (1992). Professor Freeman was President of the International Neural Network Society (1994) and is Life Fellow IEEE (2001). He has authored over five hundred articles and five books.

Faculty web site: <http://sulcus.berkeley.edu>

Molecular and Cell Biology 90E, Section 2
Matter, Mind, Consciousness (1 unit, P/NP)
Senior Lecturer David E. Presti
Wednesday 3:00-4:00, 105 Dwinelle Hall, CCN: 57873

All we know as humans comes to us via our mental experience: our thoughts, feelings, perceptions, and conscious awareness. The prevailing assumption in contemporary science is that mental experience will ultimately be completely understood in terms of conventional physical processes in the brain and body. Nonetheless, it is a deep mystery as to how the physical movements of ions and molecules in our brains could give rise to subjective experiences like thoughts and feelings. Some argue that the investigation of this mind-body problem is the most interesting question in all of science. We will consider this question from the perspectives of neuroscience, biology, physics, and philosophy. **Students interested in all areas of the arts, humanities, and sciences are encouraged to enroll. This seminar is part of the Connections@Cal initiative.**

David Presti has taught neuroscience at UC Berkeley for more than twenty years. For the past several years, he has also been teaching neuroscience to Tibetan monks in India.

Faculty web site: <http://mcb.berkeley.edu/labs2/presti/>

Natural Resources 24, Section 2
Global Environment Theme House Freshman Seminar (1 unit, P/NP)
Professor J. Keith Gillless
Thursday 5:00-6:00, 4301 Foothill 4 - Classroom A, CCN: 61353

After the formal sessions, the professor and students may continue their discussion informally over dinner in the Dining Commons. Food for Thought dining arrangements and field trip arrangements will be discussed in class.

The goal of this Freshman Seminar is to bring students and faculty together to explore issues such as global environmental change, policy and management of natural resources, sustainable rural and urban environments, and environmental leadership. The seminar will provide students and faculty a forum to exchange ideas, challenge one another's thinking, and share experiences in a small group setting. Students will have the opportunity to do research and teach their peers about regional to global environmental issues in preparation for Theme Program field trips and guest speakers. **Course enrollment is restricted to Global Environmental Theme House participants. Obtain CEC from the instructor. This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.**

J. Keith Gillless is a professor of forest economics and dean of the College of Natural Resources. His degrees are in forestry and agricultural economics from Michigan State University and the University of Wisconsin. He has been a member of the Berkeley faculty since 1983. His research and teaching interests include wildland fire protection, environmental economics, international forestry development, biofuels and a lot of other things.

Faculty web site: http://ourenvironment.berkeley.edu/people_profiles/j-keith-gillless/

Near Eastern Studies 24, Section 1
Islam and Imaginative Literature: The Making of a Problematic Relation (1 unit, LG)
Professor Muhammad Siddiq
Tuesday 10:00-11:00, 115 Barrows Hall, CCN: 61474

This course explores the status of imaginative literature in Islamic contexts. Beginning with the attitude of the Qur'an towards poetry and poets (which we will compare to the views of Plato and Aristotle on the subject), the course will examine the perimeters of literary expression and the theological constraints placed on it in various phases of Islamic history up to the present. Students are expected to write several short, informal, but analytical essays. In addition, regular attendance and participation in class discussion will figure in determining the overall grade in the course.

Professor Muhammad Siddiq is trained in Comparative Literature with special expertise in Arabic, Hebrew, and English. He is currently working on a project that examines the poetics of Palestine in the works of the major Palestinian poet Mahmoud Darwish.

Faculty web site: http://nes.berkeley.edu/Web_Siddiq/Siddiq.html

Nutritional Sciences and Toxicology 24, Section 1
Classic Asian Martial Arts Movies (1 unit, P/NP)
Professor George Chang
Wednesday 11:00-1:00, Unit Two All Purpose Room, CCN: 64617

Food for Thought dining arrangements will be discussed in class.

Do you like classic Asian martial arts films? Or wonder how Jet Li and Jackie Chan became stars? Or want to see the early work of today's greatest martial arts director? Do you want to see the obscure Japanese

movie that inspired the Star Wars films? Then this is the seminar for you. In some weeks we will screen films in class. In others, teams of students will lead discussions about certain aspects of these films. We'll start with 'Crouching Tiger, Hidden Dragon,' and then move on to classics such as the 'Seven Samurai,' Jet Li's 'Shaolin Temple,' Bruce Lee's 'Chinese Connection,' Jackie Chan's 'Snake in the Eagle's Shadow,' and Toshiro Mifune's 'Hidden Fortress' (the inspiration for Star Wars). "Classic Asian Martial Arts Movies" will be held in the Unit 2 All-Purpose Room to enhance the living-learning connection in the residence halls. After seminars, students and faculty can continue their discussions over lunch at the Crossroads Dining Commons. **This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.**

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. In 2005 Professor Chang became the inaugural professor in Cal's Residential Faculty Program.

Faculty web site: http://nature.berkeley.edu/site/personnel_profile.php?id=95&id_url=true

Philosophy 24, Section I
Philosophy with Socrates (1 unit, P/NP)
Professor Klaus Corcilius
Wednesday 11:00-12:00, 214 Haviland Hall, CCN: 67183

In this seminar we will jointly read and discuss a series of ancient texts in which the Greek philosopher Socrates examines other people's claims about pleasure, justice, piety, virtue, the good life, death, happiness, philosophy and many other important things. We will learn about the so-called Socratic Method, about its aims and structure and discuss the issues raised by Socrates for ourselves.

Professor Klaus Corcilius' interest is in ancient philosophy, theoretical and practical, and within ancient philosophy especially Aristotle. Currently, he is working on Aristotle's scientific conception of the soul. Corcilius was an undergraduate at Hamburg University, Germany, and completed his doctoral studies at Humboldt Universität Berlin.

Physics 24, Section I
The Japanese Disasters of 2011: What Happened? (1 unit, P/NP)
Professor Bob Jacobsen
Thursday 2:00-3:00, 111 LeConte Hall, CCN: 69410

Food for Thought dining arrangements will be discussed in class.

In spring 2011, a large earthquake occurred off the coast of Japan. This caused a tsunami, which in turn caused a nuclear reactor accident at the Fukushima Daiichi plant. These events had a huge impact on Japan, and were so large that they had effects even in California. We'll explore this entire series of events, with initial emphasis on what really happens in very large earthquakes, how tsunamis are caused and what they do, and what happened in the reactor accidents. As time allows, we'll investigate ways of estimating the risk of similar events in California and the US, and discuss how those risks are being managed. **No special math or physics knowledge is required, but you should be curious about the science and technology underlying the events in Japan. A willingness to ask and even**

sometimes answer questions would be helpful. This seminar is part of the Food for Thought Seminar Series.

Bob Jacobsen is an experimental high-energy physicist and ex-computer engineer. His previous project involved hundreds of physicists and thousands of Linux computers at sites around the world; his next one definitely won't.

Faculty web site:

http://physics.berkeley.edu/index.php?option=com_dept_management&act=people&Itemid=299&task=view&id=363

Plant and Microbial Biology 24, Section I

Agrobacterium: A Simple Soil Bacterium that has Transformed the Plant World (1 unit, P/NP)

Professor Patricia Zambryski

Wednesday 4:00-6:00, 274 Koshland Hall, CCN: 70336

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

Agrobacterium was discovered in the early twentieth century. Interest first centered on its ability to cause tumors on plants, as scientists thought this might provide insight into human cancer. In the 1970s it was revealed that Agrobacterium could transfer DNA to plant cells, where it was stably incorporated into the plant DNA. Thus, Agrobacterium developed as a vector to “genetically engineer” plant cells with any DNA of interest. Now Agrobacterium is widely used in fundamental research in plant labs as a tool to study specific plant genes. The genetic engineering capability of Agrobacterium also is used to create “transgenic” crop plants that produce herbicides or insecticides. We will 1) discuss the fundamental biology that allows Agrobacterium to do this amazing feat of DNA transfer to plant cells, 2) explore the benefits and controversy surrounding transgenic crops, and 3) perform simple experiments with Agrobacterium that allow us analyze their outcomes in my laboratory.

Patricia Zambryski has been at UC Berkeley since 1986. Her laboratory in the Department of Plant and Microbial Biology performs research in two areas: 1) what are the fundamental molecular mechanisms underlying the ability of Agrobacterium to transfer DNA to plant cells? and 2) how do plant cells that are surrounded by cellulose communicate with each other? Every spring she teaches “The Secret Life of Plants” a course for freshman and non-science majors that covers basic and unique concepts in plant biology that are important for students when evaluating socially relevant issues, such as climate change, the science behind the headlines in plant genetic engineering, plant development and sex, and how plants cope with disease.

Faculty web site: <http://pmb.berkeley.edu/profile/patricia-c-5106439204>

Portuguese 24, Section I

Hello Brazil: Literature, Arts, Society (1 unit, P/NP)

Professor Candace Slater

Tuesday 1:00-2:00, 5125 Dwinelle Hall, CCN: 86606

This seminar offers a description of Brazil—a vast and varied country—through some of its major literary and artistic expressions. It provides a sense of roots for some of the challenges that Brazil is currently facing as well as a notion of its shifting identities. The title "Hello Brazil" comes from a celebrated film about cultural and economic change. **Some knowledge of Spanish (which has various similarities to Portuguese) and of Latin America is welcome but not required. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students.**

Candace Slater is Professor of Spanish and Portuguese. She is the author of seven books and numerous articles about Brazilian folk and popular culture, as well as literary and environmental topics. Most of her research has been in the Brazilian Northeast and the Amazon.

Faculty web site: <http://spanish-portuguese.berkeley.edu/our-faculty/>

Rhetoric 24, Section I

Elocution (1 unit, P/NP)

Professor Thomas O. Sloane

Tuesday 9:00-11:00, 7415 Dwinelle Hall, CCN: 77869

This seminar will meet for eight weeks, on January 17, January 24, January 31, February 7, February 14, February 21, February 28 and March 5, 2012.

Elocution developed out of rhetoric—specifically, out of instruction in “delivery,” the public speaker’s use of voice and gesture before an audience. When elocution became a specialty three centuries ago, it broadened its scope and centered on improving speech generally, such as correcting dialects and mispronunciation, overcoming shyness, developing good posture. Through the years it stimulated other specialties such as speech correction, acoustics, calisthenics, modern dance, and spurred the invention of the telephone. It’s still around, although for the past century academic courses in elocution tend to be in ill repute (Google “elocution lessons” and perhaps you’ll see why). In this seminar we shall concentrate on “delivery” in creating and understanding discourse, and our work will consist mainly of in-class exercises, oral reports and presentations. **The seminar is designed for students with the most general interest in “delivery”—not necessarily for students seeking actually to develop speech skills (the course is too short) but for students who wish to find out about the nature of those skills, a little of their history, and some of their possible uses in understanding discourse: in discovering how, for example, just thinking about a speaker’s “delivery” and audience might help one write an essay or analyze a poem.**

Thomas Sloane is Emeritus Professor of rhetoric and former Presidential Chair in Freshman and Sophomore Studies. He served as editor-in-chief of the *Encyclopedia of Rhetoric* (Oxford, 2001). A victim of elocution at a young age, he recently completed a study of elocution and its relation to literary criticism, to be published later this year.

Faculty web site: http://rhetoric.berkeley.edu/people.php?page_id=1056&p=73

Rhetoric 24, Section 3

Genocide and Accountability in Cambodia and Rwanda (1 unit, LG)

Professor David Cohen

Tuesday 11:00-1:00, 7415 Dwinelle Hall, CCN: 78388

This seminar will meet the whole semester but have various weeks off to prepare for assignments.

Our seminar will compare the experience of Rwandans and Cambodians during the mass violence that ravaged these two countries. We will consider the legal framework of genocide as seen through the international tribunals established to provide accountability for these crimes, as well as the politics of mass atrocity (both domestically and internationally) and the way in which the violence was experienced by victims and perpetrators.

David Cohen directs the War Crimes Studies Center at UC Berkeley and works with war crimes tribunals, human rights courts, and truth commissions in Cambodia, Indonesia, East Timor, Sierra Leone, Rwanda and elsewhere.

Faculty web site: http://rhetoric.berkeley.edu/faculty_bios/david_cohen.html

Slavic Languages and Literatures 24, Section I
The Brothers Karamazov: Let's Read It Together (1 unit, P/NP)
Professor Hugh McLean
Friday 9:00-11:00, 6115 Dwinelle Hall, CCN: 79733

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. **Enrollment is limited to twelve students. No knowledge of Russian is required, nor are there any special qualifications. No term paper. Grade will be based on class attendance and participation.**

Hugh McLean is a Professor Emeritus of Slavic Languages and Literatures at UC Berkeley. He has taught a wide range of courses on Russian literature and was an active member of the faculty from 1967 to 1994. Since then he has been recalled to teach regular courses and more recently has taught Freshman-Sophomore and Freshman seminars. Professor McLean is the author of *In Quest of Tolstoy* (Boston, 2008).

South and Southeast Asian Studies 24, Section I
Elephant, Monkey, Rabbit: Animal Magic in South and Southeast Asia (1 unit, LG)
Professor Penny Edwards
Monday 2:00-3:00, 332 Giannini Hall, CCN: 83211

From trickster monkeys and rabbit judges to the elephantine and divine, this seminar will examine animal motifs and meanings in the cultures of South and Southeast Asia. Our sources will be legends, folk tales, Buddhist stories, oral histories and the theatrical, visual and plastic arts. We will also examine how such figures as Hanuman from the Ramayana and the Hindu deity Ganesh have traveled—and continue to travel—in translation from South to Southeast Asia. We will examine the magic, majesty and myth of elephants as well as the mischief of monkeys and a range of other animals, including judgmental rabbits and pious crocodiles. We will situate our readings against Lewis Hyde's seminal book, *Trickster Makes This World: Mischief, Myth and Art*. This seminar will also include several specialist presentations on the animal lore of specific cultures and countries in South and Southeast Asia, by faculty of the Department of South and Southeast Asian Studies. Assessment is through active participation (40%) and written exercises (60%). Course materials will include a reader designed exclusively for this course, and Lewis Hyde's book, *Trickster Makes this World: Mischief, Myth and Art*. **This course is designed for students with a love of folklore and myth, and an interest in the diversity of cultural idiom. No background in South or Southeast Asia is required. This seminar is part of the Connections@Cal initiative.**

Penny Edwards is Associate Professor of South and Southeast Asian Studies at UC Berkeley.

Faculty web site: <http://sseas.berkeley.edu/people/faculty/penny-edwards>

Spanish 24, Section I
Talking Funny: Language Variation in Spanish and English Literary Texts (1 unit, LG)
Professor Milton Azevedo
Tuesday 11:00-12:00, Spanish Library - 5125 Dwinelle Hall, CCN: 86175

For centuries fiction authors have used literary dialects containing nonstandard spelling and regional syntax and vocabulary to represent colloquial and regional speech, foreigners' talk, and mixed languages. Our goal in this seminar is to read passages from some of their works, analyze the ways in which nonstandard speech is represented in writing, and use that analysis as a point of departure for

commenting on social and cultural implications of language variation. Spanish and English literary works to be read will include Mark Twain's *Adventures of Huckleberry Finn* and Guillermo Cabrera Infante's *Tres Tristes Tigres*. The seminar is taught in English with readings in both English and Spanish. Regular class attendance is a strict requirement, and 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. **Although the seminar is conducted in English, students must be comfortable with Spanish—they need to understand spoken Spanish and be able to read Spanish with some fluency—about the equivalent of four years of high school Spanish minimum. PLEASE NOTE: THIS IS NOT A CONVERSATION COURSE. Students interested in taking a course focusing on conversation or otherwise improving their ability to speak Spanish should see the Undergraduate Assistant in the Department of Spanish and Portuguese. This seminar is part of the On the Same Page initiative.**

Professor Milton Azevedo received his Ph.D. in Linguistics from Cornell University and has been at UC Berkeley since 1976. He has offered this seminar since spring 1999.

Faculty web site: <http://spanish-portuguese.berkeley.edu/people/faculty.html>

**Vision Science 24, Section I
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.

Faculty web site: <http://vision.berkeley.edu/VSP/content/faculty/facprofiles/vansluyters.html>

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.

Computer Science 39P, Section I
Photographing History in the Making (2 units, P/NP)
Professor Brian Barsky
Tuesday 12:00-2:00, 405 Soda Hall, CCN: 26254

On the first day of instruction, please meet Professor Barsky at 12:10 p.m. next to the "Suggestions" board inside the Foothill Dining Commons. At 1:10 p.m., the class will meet in 405 Soda Hall. Additional Food for Thought dining arrangements and field trip dates and arrangements will be discussed in class.

Responding to this transformational period in the history of the university, this experimental seminar will explore photographic technique and be conducted in the context of the current climate of change and conflict sweeping the university. Political discussion will be an integral part of the seminar. Class participation is essential. Students should be interested in learning about changes that are occurring at the university and in discussing these topics (for example, fiscal issues, priorities, privatization, students' rights), as well about how documentary photographs convey and affect political change. The seminar emphasizes civic engagement and is not intended to be primarily a photography course. Students should have a background in photography. The seminar will explore the roles of documentary photography, photojournalism, and activist photography as both documenters of and vehicles for change. To hone photographic skills for both film and digital photography, aesthetic, semantic, and technical aspects of photography will be discussed. As time permits, possible photography topics may include quality of light, exposure control, depth of field, composition and patterns, perspective, color science, the human visual system, spatial and color perception, or digital versus chemical processing. Print film assignments are not required but are encouraged; however, darkroom facilities are outside the control of the class. Students are required to take photographs on a weekly basis and these photographs will be critiqued in class as time permits. To complete the course assignments, students must have a camera that enables manual setting of shutter speed, aperture, and ISO as well for focus and that has either interchangeable lenses of different focal lengths or a zoom lens. Although access to both a film camera and a digital camera is preferred, this is by no means necessary. The class includes visits to campus museums, galleries, and archives. In addition to the requirement of completing weekly photographic assignments, attendance at all classes and other course-related activities is required to receive a "pass" grade, except for prior arrangement with the instructor or documented emergencies. "Guidelines Concerning Scheduling Conflicts with Academic Requirements" by the Committee on Educational Policy state "If unforeseen conflicts arise during the course of the semester students must promptly notify the instructor and arrange to discuss the situation as soon as these conflicts (or the possibility of these conflicts) are known" and "faculty may decline to enroll students in a class who cannot be present at all scheduled activities."

Enrollment in this seminar is limited to freshmen only. This seminar is not about the subject of computer science even though it is offered through the Computer Science Division. Students from all academic disciplines are welcome. This seminar is part of the Connections@Cal initiative. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students. This seminar is part of the Food for Thought Seminar Series.

Brian A. Barsky received his Ph.D. from the University of Utah in Computer Science and joined the UC Berkeley faculty in 1981 where he is Professor of Computer Science and Vision Science, and Affiliate Professor of Optometry at the University of California, Berkeley. He is a member of the Joint Graduate

Group in Bioengineering, an interdisciplinary and inter-campus program, between UC Berkeley and UC San Francisco. His research interests include computational photography, contact lens design, computer methods for optometry and ophthalmology, image synthesis, computer aided geometric design and modeling, CAD/CAM/CIM, interactive and realistic three-dimensional computer graphics, computer aided cornea modeling and visualization, and medical imaging.

Faculty web site: <http://www.cs.berkeley.edu/~barsky>

Earth and Planetary Science 39A, Section I
Geological Influences in California Society Today (2 units, LG)
Dr. Colin Amos
Wednesday 4:00-5:00, 325 McCone Hall, CCN: 19036

Students must attend the first class where field trip dates and arrangements will be discussed.

The theme of this course is the influence of geology in California society. The focus is a 4-day field trip to explore California. As a freshman seminar, the class involves close personal interaction between students and 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 trip is preceded by two or three one-hour lectures and two or three video presentations. Students are expected to attend one logistical meeting prior to the trip. The continuous four-day trip will 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. Attendance at initial six class meetings and 4-day field trip is mandatory. **Enrollment is limited to ~20 freshmen. This course is restricted to freshmen only unless the instructor's consent is obtained. If you have any questions regarding this seminar, please contact Catherine Pauling at 642-4068 or cpauling@berkeley.edu.**

Dr. Colin Amos is a Post Doc in the Department of Earth and Planetary Science at UC Berkeley. He is a field geologist specializing in active tectonics and geomorphology. His research interests also include paleoseismology.

Faculty web site: <http://seismo.berkeley.edu/~cbamos/Home.html>

German 39H, Section I
The World of Yesterday: Vienna 1900 (3 units, LG)
Professor Elaine C. Tennant
TuTh 9:30-11:00, 282 Dwinelle Hall, CCN: 37271

For a few decades at the end of the nineteenth century, Vienna witnessed an extraordinary and unprecedented flowering of the arts, politics, philosophy, and industry. This cultural surge made Vienna the "city of dreams" and not a few nightmares. The capital of Austria-Hungary, Vienna had doubled in population since 1840; and while the mostly failed Revolution of 1848 had not succeeded in toppling the Habsburg monarchy, it had given the empire a constitution. Along the newly constructed Ringstrasse, a parade of monumental public buildings and grand residences separated the old central city from the suburbs that were mushrooming beyond it. Vienna in this period was a city of great variety, contrasts, and contradictions-ethnic, social, political, and economic. It was at once splendid and squalid, progressive and decadent. Fin-de-siècle Viennese society looked backward and forward at the same time. From the Hofburg and the Schönbrunn palace at the edge of town, Emperor Franz Josef maintained the aristocratic,

Catholic tradition of the monarchy through social policies that were alternately enlightened and repressive. Downtown, artists, intellectuals, musicians, and businessmen from around the city and across the empire formed the coffeehouse set whose ideas shaped the Viennese Art Nouveau, the Zionist movement, the theory of psychoanalysis, and the Russian Revolution. This was the Vienna of Freud and Herzl, Hofmannsthal and Schnitzler, Bruckner and Mahler, Kokoschka and Schiele, Otto Wagner and Adolf Loos, as well as conservative Mayor Karl Lueger. Vienna in these years was preoccupied with beauty, feeling, and style, but also with class, racial, and ethnic prejudice. This brilliant chapter of the city's history, which saw the rise of the Secession, Young Vienna, and the Wiener Werkstätte, ended with the Great War. This seminar is about the remarkable aesthetic production that burgeoned in the conflicted social and intellectual climate of Vienna around 1900. We will concentrate primarily on literary and journalistic writers of the period, but will also sample the work of some of the great painters, decorative artists, and musicians who contributed to the unique atmosphere of Vienna in the prewar period. The syllabus is likely to include texts by Sigmund Freud, Arthur Schnitzler, Hugo von Hofmannsthal, Theodor Herzl, Robert Musil, and Franz Kafka; paintings and decorative art objects by Joseph Hofmann and Gustav Klimt; and a film by Max Ophüls. Previous knowledge of German is not required. Students with a background in German, however, are welcome (indeed encouraged) to do some of the assigned readings in the original language. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science. **Previous knowledge of German is not required. Students with a background in German, however, are welcome (indeed encouraged) to do some of the assigned readings in the original language.** This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

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

Faculty web site: <http://german.berkeley.edu/people/showprofile.php?id=13>

German 39L, Section I
Wagner and Nietzsche (3 units, LG)
Professor Chenxi Tang
MWF 4:00-5:00, 179 Dwinelle Hall, CCN: 37482

In this seminar we will get to know two of the most scintillating figures in the history of European culture: Richard Wagner (1813-1883), the greatest German opera composer, and the philosopher Friedrich Nietzsche (1844-1900), known for his trenchant reflections on the modern condition. We will study their major works and try to understand the significance of their torturous relationship to one another. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Chenxi Tang studied philosophy, comparative literature, and German literature at Ludwig-Maximilians-Universität Munich (MA 1993) and Columbia University (PhD 2000). He had taught at the University of Chicago before joining the German Department at Berkeley in 2007. His research and teaching interests include German literature from the eighteenth to the twentieth century, cultural theory, political and legal thought, and modern European intellectual history. His publications so far have focused mostly on the period between 1750-1850. His book "The Geographic Imagination of Modernity: Geography, Literature, and Philosophy in German Romanticism" traces the emergence of the geographic paradigm in Western thought around 1800. He is currently working on a book project entitled "Imagining World Order: International Law and Literature in Europe, 1500-1900." This project investigates the ways in which literature joined hands with jurisprudence to envision a symbolic order of the world during the classical age of international law.

Faculty web site: <http://german.berkeley.edu/people/showprofile.php?id=150>

Jewish Studies 39E, Section I

Jewish Collective Identity and Memory (2 units, P/NP)

Dr. Nurit Novis-Deutsch

Wednesday 12:00-2:00, 271 Barrows Hall, CCN: 47802

Food for Thought dining arrangements will be discussed in class. This seminar includes a museum field trip on April 25, 2011 from 11:00 a.m. - 1:00 p.m.

In this course we will ponder the riddle of Jewish existence by looking at the role that collective Jewish memory plays in Jewish identities. Some of our themes will include these: how the Jewish calendar reflects and creates collective memory; defining who is a Jew and who is the "other"; anti-Semitism's role in shaping Jewish identity; traumatic and repressed memories in Judaism; the role of emotion and cognition in Jewish identity and a consideration of Jewish practices from an evolutionary psychology perspective. This course will give you a grounding in preparing a text for a class discussion, as each of our meetings will focus on a single text which you will be asked to prepare and present in class. A trip to the San Francisco Jewish Museum will culminate our shared journey. **Enrollment is limited to freshmen only. The class is open to all freshmen but some background in Judaism will come in helpful. This seminar is part of the Food for Thought Seminar Series.** This seminar may be used to satisfy the Historical Studies breadth requirement in Letters and Science.

Dr. Novis-Deutsch is a Visiting Psychology Professor from Jerusalem, Israel, where she researches and teaches psychology of religion in general and Jewish identity in particular. She is currently conducting research on Bay Area religious Jews and lecturing at the Psychology Department of Berkeley.

Legal Studies 39D, Section I

Current Political and Moral Conflicts and the U.S. Constitution (2 units, LG)

Mr. Alan Pomerantz

Monday 10:00-12:00, B56 Hildebrand Hall, CCN: 51509

The debate about morals has moved steadily into the realm of the Supreme Court, but people differ on what exactly the role of the Court should be. Some have strongly argued that the Court's interpretation and application of the Constitution have adversely affected our fundamental rights and usurped powers from other branches of government. This position claims the Court has created an "Imperial Judiciary." Others argue as strongly that the Court has acted properly to protect fundamental freedoms and individual rights in the face of unprecedented political and governmental efforts to limit them. This position claims the Court has, in fact, fulfilled the role envisioned for the Court by the Constitution. This seminar will follow the Socratic method in examining moral and political issues that have a constitutional basis and the Court's participation in the debate on topics such as gay rights (including gay marriage), abortion, privacy, symbolic speech, college speech codes, "hate" speech, and racial and ethnic profiling. We will read Supreme Court cases, as well as political and legal commentary from across the political spectrum, and consider not only the opinions of the Justices, but also why they hold those opinions. Students will be asked to develop and apply critical thinking skills and are expected to develop and support their own views and opinions regarding the relevant topics. This seminar may be used to satisfy the Philosophy and Values or Social and Behavioral Sciences breadth requirement in Letters and Science.

Alan J. Pomerantz, Esq., is a practicing lawyer and Senior Counsel at Pillsbury Winthrop Shaw Pittman a major international law firm. A graduate of the NYU School of Law, he also studied in Chile and received an advanced legal degree from the University of Amsterdam (Netherlands). He has lectured and taught widely, including at the NYU School of Law, NYU College of Arts and Science, the University of Amsterdam, Columbia Graduate School, and the University of Concepcion (Chile). He has published numerous articles and contributed to several treatises on legal topics. Mr. Pomerantz is recognized by

several peer publications as one of the world's leading lawyers. Mr. Pomerantz has participated in important and controversial matters affecting individual rights, including death penalty appeals, right of public artistic expression, right of privacy for acts of consenting adults, and numerous free speech cases.

Plant and Microbial Biology 39E, Section I
Biochemistry, Microbiology and Genetics in the Kitchen (2 units, P/NP)
Professor Kathleen Ryan
Wednesday 2:00-4:00, 237 Cory Hall, CCN: 7034 I

This class is for students who at least like biology/chemistry and LOVE to eat, cook, or both. We will examine food preparation through a scientific lens. Why is chocolate tempered? Why is it so difficult to make a gluten-free baguette? How do people turn milk into so many different cheeses? Do you really want to know what's in the sausage? These and other topics will be discussed by the instructor and guest lecturers who actually prepare food for a living. Readings will be drawn from *On Food and Cooking*, 2nd ed, by Harold McGee.

I am an Associate Professor in Plant & Microbial Biology. I study cell cycle progression and cell organization in the bacterium *Caulobacter crescentus*. I love food and cooking, and I'm grateful to live in this food mecca that we call the Bay Area. I can't help thinking about food and cooking scientifically—it's how my brain is wired. Teaching this course is an opportunity for me to consult experts and learn more about cooking at a molecular level.

Faculty web site: <http://epmb.berkeley.edu/facPage/dispFP.php?l=6>

Public Policy 39B, Section I
Art and Depair (2 units, LG)
Professor Michael O'Hare
Wednesday 1:00-3:00, 355 Goldman School of Public Policy, CCN: 77105

Artists have engaged with despair in different ways for centuries. We will engage with interesting comparative examples in three broad categories: Art expressing/exploring despair in work and personal life (Mahler 6th symphony, *Expulsion from the Garden* (various), Grosz & Kollwitz, miscellaneous blues); Art as an antidote or correction for despair, personal and political (*The Internationale*, Schubert *An Die Musik*, Issenheimer Altar, Beethoven 4th Piano Concerto, Cavaquinho *Minha Festa*); and Art of resignation and acceptance (Brahms Requiem). [Examples are illustrative, not exhaustive]. The course will consider works in multiple media, including music, theater, and plastic arts, and from multiple cultures and periods. **This seminar is part of the Connections@Cal initiative. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students.**

Michael O'Hare is an architect and engineer by training, with a publication history in arts and cultural policy and work experience at the Museum of Fine Arts, Boston. He is coauthor (with A. Feld and J.M. Schuster) of *Patrons Despite Themselves: Taxpayers and Arts Policy*. He teaches PPI56/256, Arts and Cultural Policy in alternate years. His research is currently concentrated on energy and environment (biofuels and global warming) and arts policy (digital media markets).

Faculty web site: <http://gspp.berkeley.edu/academics/faculty/ohare.html>

Rhetoric 39I, Section I
Renaissance Classics from a Rhetorical Perspective (2 units, LG)
Professor Barbara Shapiro
Wednesday 10:00- 12:00, 7415 Dwinelle Hall, CCN: 78391

This seminar will examine several Renaissance classics from a rhetorical perspective. Among the works to be considered are More's *Utopia*, Machiavelli's *The Prince*, Castiglione's *The Courtier* and several plays. **Enrollment is limited to eighteen students.** This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Emerita Professor Barbara Shapiro teaches courses on the Renaissance, sixteenth- and seventeenth-century England and Europe. Her research interests include intellectual, cultural and legal history of early modern England. She has written *Probability and Certainty in Seventeenth Century England*; *Beyond Reasonable Doubt and Probable Cause: Historical Studies in the Anglo-American Law of Evidence*; and *A Culture of Fact: England 1550-1700*. Her current research is on the political culture of early modern England; oaths in early modern English legal proceedings; and history of the Anglo-American law of evidence.

Faculty web site: http://rhetoric.berkeley.edu/people.php?page_id=1056&p=71

Slavic Languages and Literatures 39M, Section I
Linguistic Diversity: The Languages of the Former Soviet Union (3 units, LG)
Professor Darya Kavitskaya
Tuesday and Thursday 12:30-2:00, 254 Dwinelle Hall, CCN: 79751

Russian first comes to mind when the Soviet Union is mentioned and in a sense rightly so since it used to be the lingua franca in the area. However, this territory is famous for its incredible linguistic diversity: the USSR was a unique multilingual state with over 120 languages spoken. We will talk about various Slavic languages (Russian, Ukrainian, and others), and also about Baltic (e.g., Lithuanian), Armenian, Turkic (e.g., Tajik, Uzbek, Tatar), Uralic (e.g., Nenets), and the languages of the Caucasus (e.g., Georgian). The course will cover various topics in the structure of these languages, patterns of multilingualism, Soviet language policy, and post-Soviet language planning. We will also touch upon the topic of fieldwork with endangered languages, based on the instructor's research and field experience. Taking a seminar-style course in a small group of highly engaged students may be the best part of one's college experience; it is also an opportunity to learn research skills. You may choose any relevant topic that appeals to you for a research paper written under faculty supervision. **No linguistic or other prerequisites. All students are welcome, especially students who are interested in language and multilingualism.** This seminar may be used to satisfy the Social and Behavioral Sciences or International Studies breadth requirement in Letters and Science.

Professor Kavitskaya's research and teaching interests are in Slavic and general linguistics, specifically phonetics, phonology, historical Slavic, and endangered languages of the former Soviet Union. She conducted fieldwork and research on Slavic (Russian, Serbian, Czech), Turkic (Crimean Tatar), Uralic (Tundra Nenets), and Kartvelian (Georgian) languages. After completing a Ph.D. in Linguistics at UC Berkeley (2001), professor Kavitskaya taught at Yale (2001-2011) and joined the UC Berkeley faculty (the Department of Slavic Languages and Literatures) in the Fall of 2011.

Faculty web site: <http://slavic.berkeley.edu/faculty.html>

**South and Southeast Asian Studies 39G, Section I
“Think Gender” in Indian Short Stories (2 units, LG)**

Lecturer Kausalya Hart

Friday 8:00-10:00, Unit 3 - 2400 Durant Avenue - Room L45, CCN: 83212

In this seminar, students will read approximately twenty-five short stories from various languages of India translated into English. The stories will describe the relationships between men and women and how the society looks at the roles of men and women in Indian culture. The students will be expected to read the stories and to discuss and critique them in class. They will also be expected to write a three-page criticism of the stories assigned for each class. **Enrollment is limited to fifteen students.** This seminar may be used to satisfy the Arts and Literature or Social and Behavioral Sciences breadth requirement in Letters and Science.

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

Faculty web site: <http://sseas.berkeley.edu/people/faculty/kausalya-hart>

**South and Southeast Asian Studies 39I, Section I
Southeast Asian Performing Arts (2 units, LG)**

Dr. Maria Josephine Barrios-Leblanc, Ms. Cynthia Aban, Ms. Ninik Lunde and Mr. Bac Tran

Tuesday 9:00-11:00, B4 Dwinelle Hall, CCN: 83214

The course focuses on Southeast Asian Performance—the music of Vietnam, Indonesian dances, and Philippine theater and music. Discussions shall be guided by the following questions: How have geography, religion, social structures, customs, and beliefs shaped indigenous performing art forms? How are performing traditions revitalized in contemporary times? How have experiences of colonialism and social movements informed the work of performing artists? How can we read/view these works today? **We hope to attract students interested in one, both, or all of the following: the Southeast Asian region, the performing arts (music, dance, theater), and history.** This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Joi Barrios has a Ph.D. in Filipino and Philippine Literature. She is the author of five books, among them the poetry collection *To Be a Woman is to Live at a Time of War* and her research, *From the Theater Wings: Grounding and Flight of Filipino Women Playwrights*.

Faculty web site: <http://sseas.berkeley.edu/people/faculty/joi-barrios-leblanc>

Cynthia Aban is a singer and kulintang player with the multi-awarded performing band Grupong Pendong which utilizes indigenous instruments in creating contemporary music. Before coming to UC Berkeley, she was a Ph.D. student at the University of the Philippines studying Filipino psychology.

Faculty web site: <http://sseas.berkeley.edu/people/faculty/chat-aban>

Ninik Lunde has a Master's degree in Linguistics from the University of Wisconsin. She taught Indonesian language at UW Madison for five years and has been teaching beginning and intermediate Indonesian since 1993 at UC Berkeley. She has created audio-visual materials for her classes. Her academic interests include linguistics and comparative literature. In addition to language teaching, she also has been performing Javanese, Balinese and Sumatranese dances on campus, in the Bay Area and at dance festivals.

Faculty web site: <http://sseas.berkeley.edu/people/faculty/ninik-lunde>

Bac Hoai Tran has a Master's degree in English with a concentration in Linguistics from San Francisco State University. He is the author of the textbook *Conversational Vietnamese* (2008), and is a coauthor of the *Vietnamese Practical Dictionary* (2010) and *Living with English* (2001). He is a co-translator of the collection of short stories titled *The Stars, The Earth, The River* (1997), as well as several other short stories in the anthologies *The Other Side of Heaven* (1995), *Vietnam: A Traveler's Literary Companion* (1996), *Night, Again* (1996), *Virtual Lotus: Modern Fiction of Southeast Asia* (2002), and *Crossing the River* (2003).

Faculty web site: <http://sseas.berkeley.edu/people/faculty/bac-hoai-tran>

Undergraduate and Interdisciplinary Studies 39B, Section I
Archival Research: Working with Primary Sources in the Humanities, Sciences, and Engineering (1.5 units, LG)
Professor James Casey, Mr. David Farrell and Mr. Peter Hanff
Friday 1:30-3:00, Stone Room - 373 Bancroft Library, CCN: 89003

This seminar offers undergraduates from any major the opportunity to perform original research using primary sources from the archives of The Bancroft Library, or from other specialized libraries at the University or in the San Francisco Bay Area. Students will have direct access to the unique collections of original manuscripts, papers, early printed editions, maps, photographs, paintings, and other items in the Berkeley archives. These cover literary, historical, philosophical, social, cultural, scientific, engineering, and artistic areas, spanning many centuries and different cultures. Bancroft has an especially rich collection of primary sources on California during the nineteenth and twentieth centuries (e.g., manuscripts, drawings, and paintings from the Gold Rush era; reports, engineering drawings, and photographs for the Golden Gate and Bay Bridge projects; an extensive archive on the poetry and fiction of the Beat Generation; and the papers of the Sierra Club and the Free Speech Movement). After some introductory sessions on the use of primary documents and artifacts in research, we will explore the Bancroft archives in areas of interest to the group. By mid-semester, students will begin working individually or in pairs on a topic of their own choosing, but based on archival materials. Creativity and ingenuity in research are encouraged and everyone is expected to participate vigorously in the discussions. Library specialists will provide technical assistance. A presentation and research report will be due at the end of the semester. **In the past, we have found that the seminar works best when our students come from diverse cultural and academic backgrounds and are eager to engage in academic dialogue. We are particularly interested in attracting students from the sciences and engineering in addition to the humanities and arts, so that problems can be discussed from different angles, and interdisciplinary collaborations can take place. Enrollment is limited to fifteen students and attendance is mandatory.**

James Casey is a Professor in the Mechanical Engineering and Bioengineering Departments. He works on theoretical mechanics, but also has an interest in the history of the mathematical sciences. He is a passionate proponent of discourse that crisscrosses disciplinary boundaries.

Faculty web site: <http://www.me.berkeley.edu/faculty/casey/>

David Farrell is both Curator of the History of Science and Technology Program at Bancroft and University Archivist.

Faculty web site: <http://sunsite.berkeley.edu/~ucalhist/about/bios.html>

Peter Hanff, Deputy Director of The Bancroft Library, has an intimate knowledge of the archives at Bancroft and other Bay Area libraries, and a great commitment to the value of primary sources in undergraduate education.

Faculty web site: <http://blogs.berkeley.edu/author/phanff/>

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.

Anthropology 84, Section I

Race, Gender, and Social Life in Honduras: Reading Over the Shoulder of People in the Past (1 unit, LG)

Professor Rosemary Joyce

Tuesday 1:00-2:00, 225I College Avenue, Room 101, CCN: 02521

This seminar introduces students to how we learn about people in the past through the use of archival documents. Working with digital copies of documents from the colonial Spanish archives in Sevilla, Spain, Guatemala, and Comayagua, Honduras, we will "read over the shoulder" of the writers whose words form one of our most immediate links to Spanish colonial Honduran life. Students will learn how to locate archival documents online; how to read colonial handwriting; and how we can begin to understand more about society from even brief documents, like receipts for serving as a courier. Working together, we will discuss several longer documents about the lives of native Americans who were obliged to work for Spanish citizens and petitioned for relief, about free black residents of a military fort, and about illegal trade in sugar, rum, and tobacco. Knowledge of Spanish will allow students to gain the most from this seminar. **This course is ideal for students interested in Latin American history, ethnic studies, or Central America, past and present, as well as those who simply want to learn how researchers use original documents. Because the documents under examination are in Spanish, those with Spanish language skill will be able to do more with the original documents. Non-Spanish reading students will, however, be able to work with English translations that will also be discussed. This seminar is part of the Connections@Cal initiative.**

Rosemary Joyce has participated in archaeological field research in northern Honduras since 1977, and co-directed a project investigating the earliest evidence of village life in that country where she recovered evidence of chocolate dating to 1150 BC. The sites she has worked at span the entire known sequence of occupation in Honduras, from the Early Formative (before 1500 BCE) to the twentieth century. Since 1992, she has coordinated her field work with the cultural resources management goals of the Honduran Institute of Anthropology and History, working in the lower Ulua Valley to record information about sites being destroyed for economic development. Her publications include many books, the most recent "Ancient Bodies, Ancient Lives" (2008, Thames and Hudson), as well as dozens of journal articles and book chapters on topics including gender, sexuality, pottery, burials, and of course, chocolate.

Faculty web site: <http://berkeley.academia.edu/RosemaryJoyce/About>

Architecture 84, Section I

Parsing CED/Arch lectures over Pizza (1 unit, P/NP)

Professor Dana Buntrock

Wednesday 5:30-8:30, 104 Wurster Hall, CCN: 03602

This seminar will usually meet Wednesdays from 5:30 - 8:30 p.m.; dates will be based on the CED/Architecture lecture series. In addition to attending lectures, there will be fourteen hours of discussion. The first class will be on Wednesday, February 1, 2012. The full schedule is available on bspace and will be reviewed in the first class meeting.

This freshman/sophomore seminar group will collectively attend major College of Environmental Design and Architecture lectures during the Fall semester, and afterward discuss the lectures in greater depth over pizza in a Wurster Hall classroom. The architects who have the biggest presence in journals and awards craft a professional story of who they are; we'll try to develop an understanding of some of these stories. Dana Buntrock will organize these sessions, but members of the faculty and graduate students from the Department will also be invited to participate. Students will be required to develop a sketchbook of notes during the course of the semester. **This class is intended for students who would like to become practicing architects, and are interested in dissecting how discourse and positioning affects professional reputation.**

Dana Buntrock is especially interested in architecture, construction, Japan, publication and exhibition—and how all these things go together. She has written criticism on buildings, exhibitions, and books for the popular press, trade journals, refereed journals and the internet.

Faculty web site:

http://arch.ced.berkeley.edu/ced/people/ARCH_query.php?id=29&dept=ARCH&title=Faculty&first=Dana&last=Buntrock&ced&berkeley

Astronomy 84, Section I
Topics in Modern Astrophysics (2 units, P/NP)
Professor Steven Beckwith
Thursday 1:00-3:00, BI Hearst Annex , CCN: 06007

Students in this course will select several topics from a list to discuss in depth throughout the term concentrating on physical signatures of interesting objects and what we know about their origin and ubiquity. The list of topics will include black holes, the detection of extra-solar planets, formation of the first galaxies after the Big Bang, and the formation of stars. The instructor will entertain additional topics suggested by the students at the first meeting to include in the list. Each of the chosen topics will occupy two to four class meetings. For each topic, the students will be assigned to small teams that will lead the discussion of one aspect of their topic in class. The class will stress quantitative reasoning and the use of numbers and quantitative predictions as a method of understanding nature. **Students most likely to profit from this class should have an interest in physics or astrophysics and preparation equivalent to first year college level courses in physics and mathematics.**

Steven Beckwith is the Vice President for Research and Graduate Studies for the UC system and a Professor of Astronomy at Berkeley. He came to Berkeley most recently from Baltimore, Maryland, where he was the Director of the Space Telescope Science Institute, responsible for the science operations of the Hubble Space Telescope, and a Professor of Astronomy and Physics at Johns Hopkins University for nine years. Previously, he was Director of the Max Planck Institute for Astronomy in Heidelberg, Germany for seven years and a Professor of Astronomy at Cornell University for thirteen years. His research interests include the creation of galaxies in the early universe, the formation of planets around other stars, and the detection of life on extrasolar planets.

Faculty web site: <http://www.ucop.edu/research/beckwith.html>

Chemical Engineering 84, Section I
The Science and Engineering of Sustainable Energy (2 units, P/NP)
Professors Rachel A. Segalman and Alexis T. Bell
Tuesday and Thursday 10:00-11:00, 285 Cory Hall, CCN: 10308

General introduction to alternative energy resources and technologies associated with their utilization. This course will cover the availability and conversion of energy resources. Particular attention is paid to the mass and energy balances and thermodynamics of converting energy to transportation fuels and

electricity. This course will serve as a general introduction to science and technologies related to energy production from near-term energy resources (coal, natural gas, shale, and tar sands), biomass, nuclear, geothermal, nuclear, solar, wind, and wave. The economic and political factors affecting the transition from fossil to sustainable energy resources will be discussed. Significant time for classroom discussion of both the science underlying energy technologies and factors related to implementation and use will be incorporated. **Enrollment is limited to 30 sophomores.**

Rachel A. Segalman is the Vice Chair for Graduate Education and Associate Professor of Chemical and Biomolecular Engineering in the Department of Chemical and Biomolecular Engineering at UC Berkeley. Her research focuses on self-assembly of functional polymer systems.

Faculty web site: <http://cheme.berkeley.edu/faculty/segalman/>

Alexis T. Bell is The Dow Professor of Sustainable Chemistry in the Department of Chemical and Biomolecular Engineering at UC Berkeley. His research focuses on understanding the fundamental relationships between the structure and composition of heterogeneous catalysts and their performance.

Faculty web site: <http://cheme.berkeley.edu/faculty/bell/>

Earth and Planetary Science 84, Section I
Climate Change and Water in California: Past, Present, and Future (2 units, LG)
Professor Lynn Ingram
Tuesday 2:00-4:00, 401 McCone Hall, CCN: 19054

Water is critical for sustaining California's wildlife, natural resources, industries, and its large and growing population. California is the fifth largest economy in the world, with a twenty-eight-billion-dollar-a-year agricultural industry, yet it has an unreliable water source. California's economy was based on climate conditions during the 20th century, but according to studies of past climate change, the past 100 years were relatively wet and benign compared with the past several thousand years. In this seminar, we will examine the long-term history of climate in California, including examples of past megadroughts and catastrophic floods. Most of these past extreme events were of much longer duration and severity than any we've experienced over the past century. What are the implications for water resources and ecosystems in California in a future world of global warming? **The seminar is intended for students interested in exploring multiple lines of evidence for climate change and water availability in California's past (so for students with an interest in geology, geography, or environmental science).**

B. Lynn Ingram is a Professor in the Departments of Earth and Planetary Science and Geography. Her research is focused on past climate change. She uses environmental-sensitive isotopes in sediment cores from oceans, estuaries, and lakes to unravel changes in past climates and environments, including temperature, salinity, ocean circulation, and coastal upwelling. Her field areas include San Francisco Bay, Santa Barbara Basin, and coral reefs in the Pacific Ocean.

Faculty web site: <http://eps.berkeley.edu/%7Eewenbo/index.html>

English 84, Section I
Woody Allen (2 units, P/NP)
Professor Julia Bader
Wednesday 2:00-5:00, 300 Wheeler Hall, CCN: 28160

We will examine the films and writings of Woody Allen in terms of themes, narration, comic and visual inventiveness and ideology. The course will also include a consideration of cultural contexts and events at Cal Performances and the Pacific Film Archive. **This seminar is part of the Connections@Cal**

initiative. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students.

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

Faculty web site: <http://english.berkeley.edu/profiles/11>

Natural Resources 84, Section I

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

Professor J. Keith Gillless

Thursday 5:00-6:00, 4301 Foothill 4 - Classroom A, CCN: 61359

After the formal sessions, the professor and students may continue their discussion informally over dinner in the Dining Commons. Food for Thought dining arrangements and field trip arrangements will be discussed in class.

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 one another's thinking, and share experiences in a small group setting. Students will have the opportunity to do research and teach their peers about regional to global environmental issues in preparation for Theme Program field trips and guest speakers. **Course enrollment is restricted to Global Environmental Theme House participants. Obtain CEC from the instructor. This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.**

J. Keith Gillless is a professor of forest economics and dean of the College of Natural Resources. His degrees are in forestry and agricultural economics from Michigan State University and the University of Wisconsin. He has been a member of the Berkeley faculty since 1983. His research and teaching interests include wildland fire protection, environmental economics, international forestry development, biofuels and a lot of other things.

Faculty web site: http://ourenvironment.berkeley.edu/people_profiles/j-keith-gillless/

Public Health 84, Section I

Environmental Disasters in Fiction (1 unit, P/NP)

Professor Kirk Smith

Thursday 5:00-7:00, 238 University Hall, CCN: 75502

This seminar will meet every other week for two hours beginning the first week of the semester. The schedule will be announced in the first class meeting.

Environmental disasters, human caused and otherwise, have been featured in many novels and other media since the dawn of the industrial era. In this seminar, we will focus on post-apocalyptic literature with two core readings and one elective. First, we will read the non-fictional assessment *The World Without Us* (Alan Weisman), which lays a scientific foundation for how the natural world would change without pressure from humanity. Then we will read *Earth Abides* (George Stewart), which is a novel about Berkeley in a post-apocalyptic world. Each student will read a third book of his or her choosing from a list provided of historical and contemporary novels dealing with post-apocalyptic worlds. Each student will be expected to give an oral report on his or her book and participate in discussions on the core books. **Enrollment is limited to fifteen sophomores.**

Kirk R. Smith is Professor of Global Environmental Health and founder and coordinator of the campus-wide Masters Program in Health, Environment, and Development. Previously, he was founder and head of the Energy Program of the East-West Center in Honolulu. His research work focuses on environmental and health issues in developing countries, particularly those related to health-damaging and climate-changing air pollution, and includes ongoing field projects in India, China, Nepal, Mexico, and Guatemala. He serves on a number of national and international scientific advisory and editorial boards and has published over 250 scientific articles and 7 books. He holds bachelors, masters, and doctoral degrees from UC Berkeley and, in 1997, was elected member of the US National Academy of Sciences, one of the highest honors awarded to US scientists by their peers.

Faculty web site: <http://ehs.sph.berkeley.edu/krsmith/>

**Theater, Dance, and Performance Studies 84, Section I
Co-Located Performance Technology–Viewing, Experiencing, and Reflecting on the
Role of Tele-presence Technology in the Performing Arts and Computing (1 unit,
P/NP)**

Professors Lisa Wymore and Ruzena Bajcsy

Tuesday 2:00-4:00, 170 Zellerbach Hall, CCN: 88092

This seminar will meet seven weeks, beginning January 17, 2012 and ending February 28, 2012.

This seminar is designed to be taken by students interested in performance and also students interested in computer science. The goal of the course is to demonstrate how tele-presence-based technology merges with media-based performance to create new and unexpected creative outcomes. Students are required to work collaboratively, partake in readings from both computer science and inter-media studies, and make a creative project based on topics covered in the course. **We are interested in students who are open to learning about the performing arts and also learning about computer engineering, especially in the fields of computer vision, tele-presence, and robotics. Students with experience in either of these fields or both of these fields would be especially welcome. But any student who has interest in the topic and a genuine desire to learn will get something out of this course. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students.**

Professor Lisa Wymore graduated with an M.F.A. in Dance from the University of Illinois, Urbana-Champaign and began her career as a dancer, choreographer, and teacher in Chicago. She was a faculty member within the Northwestern University Dance Program before joining the Theater, Dance and Performance Studies faculty at UC Berkeley in 2004. Professor Wymore is the Co-Artistic Director of Smith/Wymore Disappearing Acts; a dance-theater-performance group based in San Francisco. Her most current project is entitled The Resonance Project, which involves a team of choreographers, computer engineers, and visual and sound artists who are investigating 3-D presence/co-presence and corporeal and code interactivity within live and media based performance. Upcoming projects include a performance at the Berkeley Art Museum on December 2, 2011 entitled "otherworld (machine)," which brings together multiple sites of production and multiplicities of bodies to create layered image collages

Faculty web site: <http://www.smithwymore.org/>

Ruzena Bajcsy is a professor in the Electrical Engineering and computer Science Department. She has been teaching and doing research during the last 30 years in computer vision, robotics and medical image processing. Recently she has been interested in the privacy of Information technology. She is a member of the NSF Science Technology Center, called TRUST.

Faculty web site: <http://www.eecs.berkeley.edu/Faculty/Hompages/bajcsy.html>

Vision Science 84, Section I
Vision research seen through Myopia (near-sightedness) (I unit, P/NP)
Professor Christine Wildsoet
Thursday 4:00-6:00, 394 Minor Hall, CCN: 66406

This seminar will meet every other week and will begin the first week of the semester.

As an introduction to vision research, this seminar will combine reading of recent review papers with hands-on research through mini-projects. Using myopia (near-sightedness) as a topical research example, we will explore together the field through recent review papers—what is known about the condition and the research approaches used to discover that information. Based on this literature, we will formulate research questions around which self- and small-group studies will be designed and executed. Research tools encountered will include questionnaires and instruments used to obtain objective measures of eye dimensions, refractive errors, vision, and visual experience. We will also consider the applications and relative merits of animal models and in vitro cell and tissue studies in myopia research. **Students interested in research or who find themselves asking "why" a lot should enjoy this seminar. Consider this seminar if graduate research, e.g. PhD, is among your career path possibilities. The goal of this seminar is to open your eyes to the broad range of possibilities that fall under the umbrella of vision research. If you are also myopic (nearsighted), you may also learn a lot about your own eyes.**

Professor Wildsoet is on the faculty of the School of Optometry, where she is involved in both clinical and pharmacology teaching. She is also a member of the Vision Science group. Her research is multidisciplinary as is her research group, which includes basic scientists, clinicians and bioengineers. The focus of research in her lab is myopia (nearsightedness), specifically the mechanisms underlying the development of myopia and its clinical management. The overriding goal of this research is the development of treatments for myopia. Under optimal conditions, young eyes adjust their eye growth to correct neonatal focusing errors. Understanding how this growth regulatory process is derailed in myopia can provide the keys to new treatments. Over the course of her research career, Professor Wildsoet has had the opportunity to work with a range of animals and birds to address other questions related to eye design.

Faculty web site: <http://vision.berkeley.edu/wildsoet/>

Vision Science 84, Section 4
Stewardship of the University of California—A Seminar on Civic Education Using Social Media (I unit, P/NP)
Professor Stanley Klein
Monday 2:00-3:30, 394 Minor Hall, CCN: 66412

This seminar will meet for ten Mondays (not always consecutive), starting January 23, 2012.

Public higher education is facing a crisis around the world. The impact on UC and UC Berkeley is of special concern to us for many reasons: it is our home, the downgrading of a great institution can have hidden negative consequences of which the public is unaware, and most important for the seminar, UC students and faculty might have a role in softening the crisis. This seminar will explore what we can do about reestablishing public support for higher education. This topic should be especially interesting this coming year as the 2012 election gets closer. A special focus of our seminar is to examine whether the new social media can facilitate healthy social change. We will explore how to navigate the explosion of sources of information, looking at multiple points of view, to help us analyze and figure out what might be optimal actions. The new Letters and Science initiative for radical changes in undergraduate education at Cal will be discussed. Both practical considerations and utopian long-range visions will be included in our

seminar discussions. There will be readings from Berkeley authors, from the printed media and from the internet community. We will also have "how to" explorations of the new social media. The seminar grade will be based on class and new media participation. **This seminar will not have anything to do with Optometry.**

Stanley Klein is a professor in Optometry, Neuroscience and Bioengineering and is just beginning to explore social media. He has a commitment to finding approaches for our society to function better in meeting the challenges of the future. He believes that there is much to learn from individuals in the Berkeley community and from new social media on the topic of sustainability and the political process in general.

Faculty web site: <http://cornea.berkeley.edu>

Vision Science 84, Section 5
Current Topics in US Healthcare (1 unit, P/NP)
Professor Kenneth Polse
Thursday 10:00-12:00, 490F Minor Hall, CCN: 66414

This seminar will meet for seven weeks on the following dates: February 9, February 16, February 23, March 1, March 8, March 15, and March 22, 2012.

This seminar examines some of the major topics/controversies in US healthcare delivery. The aim of this seminar is to heighten our awareness of the issues in today's health care. Typically, the class will review a news story, media presentation, or editorial that will serve as the beginning for class discussion/debate. Some of the topics will include single payer vs. 3rd party medical coverage; factors driving the cost of medical care, strategies to control medical costs; the role of insurance companies, pharmaceutical and device manufactures, hospitals, physician groups and government in developing health care policy; healthy living; how to evaluate products/procedures; preventative measures; end of life issues; nursing elder care; and defensive medicine. **Enrollment is limited to ten sophomores. This seminar would be of interest to most students and in particular those who are considering a career in the health care field (professional service, public health, planning, administration).**

From 1972-2003 Professor Polse served as faculty member, Clinic Director, and Associate Dean in the School of Optometry, University of California, Berkeley (UCB). Recently retired, Dr. Polse is currently Professor of Graduate Studies at UCB. His research developed from years of clinical experience, convincing him that it is the clinician's astute observations that often drive the research agenda. He also believes that discovery and clinical implementation require close collaborative efforts between basic and clinical scientists, a principle that has guided his research career. Some of Professor Polse's professional services and honors include President, International Society for Contact Lens Research; memberships on the AOA Council on Research and the National Advisory Eye Council (NIH); a Senior Fulbright Fellowship; AAO Garland Clay Award; AAO Max Shapero Lecture; BCLA Principal Keynote Speaker; UCB Sarver Endowed Chair; and Montague Ruben Medal. Since 1974, Professor Polse has had many students, residents, and post-doctoral fellows participate in his laboratory. He has received continuous research support from NIH and Industry for thirty years, resulting in many successful studies (including two NIH-sponsored randomized clinical trials) and over 140 papers published in peer-reviewed journals.

Faculty web site: <http://vision.berkeley.edu/polse/>