



SPRING 2014

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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 January 3, 2014.

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 2

Sport, Celebrity, and Controversy in American Culture (1 unit, LG)

Professor Bil Banks

Wednesday 2:00-3:00, 108 Wheeler Hall, CCN: 00571

The seminar will examine a number of sports figures who have embodied or challenged important assumptions in American life. Babe Ruth, Jack Dempsey, Jack Johnson, Billie Jean King, Muhammad Ali, the Williams sisters, Tiger Woods, Lance Armstrong, and “out of the closet” gay athletes will be studied to gain a deeper understanding of how sport and celebrity have been constructed in the national consciousness.

Bil Banks is a Professor of African American Studies and author of *Black Intellectuals: Race and Responsibility in American Life*, winner of the 1997 American Book Award. Professor Banks has offered many Freshman and Sophomore Seminars.

Anthropology 24, Section 3

The Archaeology of the San Francisco Bay Area (1 unit, P/NP)

Professor Kent Lightfoot

Tuesday 2:00-3:00, 111 Kroeber Hall, CCN: 02571

This course will introduce students to the archaeology of the greater San Francisco Bay Area. In outlining five thousand years of history, we will discuss various kinds of Native American sites, as well as the archaeology of the Russian and Spanish colonies. We will identify local parks, cultural centers, museums, and other places where students can learn more about the Bay Area's rich cultural heritage by viewing exhibits and archaeological remains.

Kent Lightfoot has been a member of the Anthropology faculty at UC Berkeley since 1987. He specializes in the study of North American archaeology and has participated in a variety of field projects in California.

Faculty web site: <http://anthropology.berkeley.edu/users/kent-lightfoot>

Anthropology 24, Section 4

Hot Culture: The Role of Chile Peppers in Global Identities (1 unit, P/NP)

Professor Christine Hastorf

Thursday 4:00-5:00, 2251 College Building, Room 101, CCN: 03482

Using the origin and history of the spicy chile pepper, *Capsicum*, we will seek out the timing, spread and use of this spice across the globe, as well as the range of feelings about it and the meanings it evokes in each society we cover. We will include its use and meaning in Latin America, Asia, and North America through reading, seeking, and discussing how *Capsicum* is incorporated into people's cuisines and self identities. **Any student interested in cuisine, food, and identity would enjoy this group search. This seminar is part of the Connections@Cal initiative.**

I became involved in anthropological research concerned with long-term human-plant relationships in 1979. I have been teaching these subjects at UC Berkeley since 1994. Within archaeology, I have focused primarily on the Andean region of South America. I am involved in studying highland Andean societies, first with the later prehistory and the Inka social and political world, with a research focus in the Mantaro Valley, central Peru. Beginning in 1992 I initiated a field project on the southern shores of Lake Titicaca in Bolivia. In that project, called the Taraco Archaeological Project, we are focusing on earlier temporal phases, studying the first permanent settlements up to the expansion of Tiwanaku. While most of the research has been at the Formative site of Chiripa, we also have been excavating at a range of sites that span the time up to Tiwanaku. We are interested in studying the domestic daily world of the residents, but also their social and ritual worlds as well as the larger interactive regional system. Between 1993 and 2001 I was involved in research at the Neolithic village site of Çatal Höyük, where I focused on the paleoethnobotanical side of that project. My laboratory and methodological expertise is what is called paleoethnobotany or archaeobotany--the study of plants used by humans in the past. I direct the UCB McCown Archaeobotany Laboratory where a series of analytical projects are ongoing. Students working with me have a chance to join in on current laboratory and field projects. We include both undergraduates and graduates in both types of research. While my main work has been with macrobotanical remains, both seeds and tubers, the laboratory also has the capacity to analyze wood, phytoliths and starch samples, in addition to documenting internal cellular morphology in identification. We have several type collections covering plants from the highlands of South America and Mexico. Further I have been involved in stable isotope research and our laboratory also works with the stable isotope laboratory that is here on campus. The projects I have been involved in focus on social life, political change, agricultural production, foodways, and the methodologies that lead us to a better understanding of the past through the study of plant use. I have written on agricultural production and cooking practices, and what shifts in these suggest about social relations, gender relations surrounding plant use, the rise of complex society, political change and the symbolic use of plants in the legitimization of authority, fuel use and related symbolism, and plant domestication as part of social identity construction and ritual and social identity. Furthermore, I have written a series of pieces on paleoethnobotanical methodology. I am particularly interested in wild plant use as compared to domesticates, identifying the stages in plant processing, their participation in social construction, and especially their participation in and reflection of the symbolic and the political, in addition to the playing out of the concept of culture in the natural world.

Faculty web site: <http://anthropology.berkeley.edu/users/christine-hastorf>

Anthropology 24, Section 5

Making the Cut: A Butcher's-Eye View of Archaeology (1 unit, P/NP)

Professor Jun Sunseri

Tuesday 3:30-4:30, Archaeological Research Facility, CCN: 03485

Zooarchaeology is the study of animal remains recovered in archaeological contexts to elucidate past human life. Zooarchaeologists study animal bones and related materials relevant to such topics as subsistence and mobility, class-based and ethnic identity, ritual and religion, and economic decisions. This seminar explores topics in zooarchaeology through readings, lectures, practicums in zooarchaeological analysis, group projects, and discussions.

Jun's research focuses on the relationships between colonization and landscapes, foodways, and identities. His work uses multiple, complementary lines of evidence of varied types and spatial scales, including analysis of archaeological faunal and ceramic assemblages related to domestic foodways, as well as analysis of remote sensing, survey, and excavation data to recognize patterning of past tactical and engineered landscapes. He currently works in collaboration with descendant communities in New Mexico, California, and South Africa.

Architecture 24, Section I

Design Thinking and the Design Professions (1 unit, P/NP)

Professor Mike Martin
Thursdays 12:00-3:00, 501A Wurster, CCN: 03603

This seminar will meet for five weeks, on 2/19, 2/26, 3/5, 3/12 and 3/19.

Creativity and innovation are the key drivers of success for many of today's leading industries and companies. At the center of this activity is design thinking. Most of our future, both today and in the years to come, will be due to a culture of creative innovation. An important element of a creative culture is the use of design thinking as a means to unlock the challenges and potential of our actions. **The course provides opportunities for students from all disciplines to explore the principles and concepts that underpin design thinking, innovations and how these powerful ways of thinking and acting are manifested in potential career paths.**

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://ced.berkeley.edu/ced/faculty-staff/mike-martin>

Chemical Engineering 24, Section I
Whose Science, Whose Fiction? Exploring America's Scientific Imagination (1 unit, P/NP)
Professor Jeffrey Reimer
Monday 4:00-6:00, 72 Evans Hall, CCN: 10303

What do we learn about ourselves, our society, and the natural world through science fiction? Discover with Professor Reimer how space exploration and technological innovation in the mid-twentieth century spawned an explosion of books, movies and television that revealed much about the US psyche. Our themes that guide our readings and viewings include dystopia, war, sexual identity, technological triumphalism, cultural hegemony, libertarian politics, sexual identity, time and religion. **All interested students are welcome, regardless of major.**

Jeffrey A. Reimer is the C. Judson King Endowed Professor in the Department of Chemical and Biomolecular Engineering at the University of California at Berkeley, and a faculty scientist at the E.O. Lawrence Berkeley National Laboratory. He is presently the Warren and Katharine Schlinger Distinguished Professor and Chair of this department. Professor Reimer was awarded the UC Berkeley Distinguished Teaching Award in 2003. The goal of Professor Reimer's research is the exploration and application of spectroscopic methods that inform society about materials chemistry and analyses. At the present time his group is focusing on the sequestration of carbon dioxide, nuclear thermodynamics and nuclear spintronics.

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

Chemistry 24, Section I
Bridge (1 unit, P/NP)
Professor Marcin Majda
Thursdays 4:00-5:00, 262 Evans Hall, CCN: 11453

"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 twenty 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
Queer Latina/o Studies (I unit, P/NP)
Professor Raul Coronado
Tuesday 2:00-3:00, 190 Barrows Hall, CCN: 13323**

In the 1980s and as a result of their involvement in the various social movements of the 1970s, Latinas and other women of color began to publish what are now canonical texts in women of color feminism, books such as *This Bridge Called My Back: Writings by Radical Women of Color* (1983) and *Loving in the War Years* (1983). Yet queer Latino men remained relatively silent. Why was this the case? What were the conditions of possibility that allowed Latinas to consciously and politically engage in the public sphere by publishing their work? We will begin with these questions as we focus our attention on these early writings by queer Latinas. We will then trace the emergence of queer Latinas/os in the public sphere. That is, we will study literature, art, and film that represented queer Latinas/os. **The seminar is an introduction to queer Latina/o cultural production. We will pay attention to both the content (the argument and/or what an author says) and the form (how the author uses words and/or images to convey a feeling, attitude, style). To that end, we will be developing skills of close reading, a technique used in literary, film, art, and cultural studies. 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.**

My teaching and research interests are in Latina/o literary and intellectual history, from the colonial period to the 1940s. In a sense, this field and period allow—indeed force—us to rethink the literature of the Americas in a transnational, hemispheric framework. That is, Latina/o literature has usually been described as a twentieth-century phenomenon, emerging for the most part during the Civil Rights movements of the 1960s and 70s. Yet a return to the literary-historical archive reveals a quite different genealogy. Beginning in the late eighteenth century, Spanish Americans—including Mexicans, Cubans, Puerto Ricans, Venezuelans, and Colombians—sought refuge in the U.S. and used the printing press, especially in Philadelphia, Charlottesville, and New Orleans, to foment support for the independence of their Spanish American countries. Likewise, during the first half of the nineteenth century, the printing press arrived across what is today the U.S. Southwest and gave birth to a vibrant and often belligerent print culture. It was through these published texts that ideas associated with modernity were, for the first time, debated and developed in print among Latinas/os, ideas such as representative government, the rights of citizen-subjects, and the power of the press to reconfigure society. By returning to the archive, rethinking the category of literature, genres, and disciplines, and engaging with the theoretical-historical problematic of modernity and colonialism in the Americas, we can begin to imagine alternative historical geographies for a literature of the Americas, one where the seemingly impermeable barrier between U.S. and Latin American literary and intellectual history begins to disintegrate in U.S. Latina/o studies.

But all these interests developed out of my initial and continuing interest in the history of Latina/o sexuality. Along with my research/teaching interests above, I also have longstanding interests in queer and feminist theory, with a particular focus on how women of color have theorized the queer subject and the emergence of queer Latina/o print culture and publics.

Faculty web site: <http://ethnicstudies.berkeley.edu/faculty/profile.php?person=123>

Chicano Studies 24, Section 2
Chicano Civil Rights Movement (1 unit, P/NP)
Professor Carlos Muñoz Jr.
Mondays 9:00-10:00, 186 Barrows, CCN: 13630

The seminar will consist of examining the multifaceted dimensions of the 1960s Chicano Civil Rights Movement via documentary films. **Students who took Chicano Studies 24: Chicano Civil Rights Movement may not take this freshman and sophomore seminar.**

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 1
Ethical Problems in Design and Construction of the New Bay Bridge (1 unit, P/NP)
Professor Abolhassan Astaneh
Monday 11:00-12:00, 544 Davis Hall, CCN: 14005

The seminar focuses on the new spans of the San Francisco Oakland Bay Bridge opened to traffic in 2013. The existing Bay Bridge was built during 1930's and still is considered one of the marvels of bridge engineering of all times. During the 1989 Loma Prieta earthquake a small portion of the roadway above a pier collapsed, while the rest of the bridge withstood the M7.1 earthquake with minor damage. Initially, the plan was to seismically retrofit both East Bay and West Bay spans. But, in 1996 through a series of activities marred by conflict of interests and ethically questionable decisions by engineers and transportation officials in charge, it was decided to replace the Eastern spans. Since then, and after more than sixteen years from the time that a decision was made to build a new replacement for the Eastern Spans, the project has been plagued with serious design and construction problems, resulting in seismic safety of the new bridge being questioned by many experts. The root of almost all problems of the new Bay Bridge can be traced back to a well documented lack of engineering ethics in the design and construction of the new bridge on the part of engineers and transportation officials involved. Professor Astaneh became a Minter Fellow on Ethics and Public Speaking in 2013 and has studied many aspects of the new Bay Bridge, including ethical aspects, for more than 15 years. In this seminar he will focus on ethical aspects of design and construction of the new Bay Bridge.

Professor Astaneh is a member of the faculty in the Department of Civil and Environmental Engineering. His area of specialty is behavior and design of structures to withstand gravity, seismic and blast loads. He has conducted several major research and design projects on long span bridges and tall buildings. He teaches graduate and undergraduate courses in structural engineering. He has studied extensively the existing as well as the new Bay Bridge, including the ethical aspects of its design and construction, for more than twenty-four years.

Faculty web site:
<http://www.ce.berkeley.edu/people/faculty/astaneh?destination=people%2Ffaculty%2Fastaneh>

Civil and Environmental Engineering 24, Section 2
The Use of Biosand and Membrane Filters: Providing Clean Water for Developing Countries. (1 unit, P/NP)
Professor John Dracup
See days and times below , 212 O'Brien Hall, CCN: 14552

This seminar will meet on the following four dates: February 5 (6:00-7:30 p.m.), February 8 (9:00 a.m.-3:00 p.m.), February 22 (9:00 a.m.-3:00 p.m.), and February 25 (6:00-7:30 p.m.).

UNESCO and WHO report that 4,000 to 6,000 children under the age of 5 die each day in the developing world from the lack of clean water and sanitation. This is equivalent to twelve Boeing 747 jet passenger planes crashing each day of the year. However, there are simple cheap technologies' available to mitigate this problem: the biosand and membrane water filters.

Biosand and membrane water filters have recently become widely used in the developing world as a means of purifying drinking water for individual household use. They provide a cheap and effective system of removing turbidity and pathogens (i.e. viruses, bacteria and worms) from polluted water. 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 1-inch PVC pipes. Membrane water filtration is a method to remove bacteria and other contaminants from water by passing raw water through a micro porous membrane. Most membrane filters for drinking water start with thin semi-permeable materials made from a synthetic polymer – manufactured as flat sheet stock or as hollow fibers. Many small, individual membranes are then bundled and formed into one of hundreds of different types of membrane modules.

The purpose of this CE 24 class will be to build and test three different biosand filter containers and three different membrane filters. The class of 18 freshman students will be divided into six teams, with three students per biosand filter team and three students per membrane team. Each team will test and assess its own unique filter.

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. This seminar is part of the Food for Thought Seminar Series.

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 is active in providing clean water to developing countries as a volunteer for Rotary International.

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

Classics 24, Section 2
Images of Socrates (1 unit, P/NP)
Professor Anthony Long
Monday 12:00-1:00 , 175 Dwinelle Hall, CCN: 14735

Who was Socrates? What did he stand for? What did he contribute to philosophy and education? Why was he condemned to death? Socrates wrote nothing, so we can only get at him through the way he is described and pictured by others. Are the images we have of him consistent? In this seminar we will study

a range of texts and portraits of Socrates--Aristophanes, Plato, Epictetus, Kirkegaard, the painter David, and others--in a quest for understanding what Socrates himself was like, as a personality, a thinker, and a world historical figure. Course requirements will include a two-page class presentation on one of the readings or portraits.

A.A. (Tony) Long is Chancellor's Emeritus Professor of Classics. Educated at University College London, Long joined the Berkeley faculty in 1982 after service as a professor at schools in New Zealand and England. His main goal as a teacher is introducing students to the ancient Greek and Roman philosophers and encouraging his classes to engage in dialogue with the material. This semester he is teaching in Hong Kong, while last year he lectured on Greek models of mind in Renmin University, Beijing. Socrates figured largely in one of Long's recent books, *Epictetus: a Stoic and Socratic Guide to Life*. The Renmin lectures will be published in 2014 both in Chinese and in English.

Classics 24, Section 2

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

Professor Kim Shelton

Wednesday 11:00-12:00, 104 Dwinelle Hall, CCN: 14733

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 thirty years of fieldwork in this country and abroad, as well as twelve years of full-time research living in Greece.

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

Development Studies 24

Poverty and Global Development (1 unit, P/NP)

Professors Michael Watts and Gillian Hart

Tuesday 12:00-1:00, 55A McCone, CCN: 18603

This seminar will explore ways in which the existence of mass poverty in parts of the developing world—the so-called bottom billion and the poor nations they inhabit—is understood in the contemporary social sciences. The seminar will provide an opportunity to read the work of key development thinkers and theoreticians—Amartya Sen, Karl Polanyi, Franz Fanon—and fundamental development problems

(demography, the role of the state, forces of globalization, industrialization). The purpose is to have students think about the meanings of development, and how we think about poverty and its eradication.

Michael Watts is Class of '63 Professor of Geography and Development Studies. A Guggenheim Fellow in 2003, he served as the Director of the Institute of International Studies from 1994-2004. His research has addressed a number of development issues, especially food and energy security, rural development, and land reform in Africa, South Asia and Vietnam. Over the last twenty years he has written extensively on the oil industry in West Africa and the Gulf of Guinea. Watts has served as a consultant to the Ford and Rockefeller Foundations and a number of NGOs and foundations. Watts is currently the Chair of the Board of Trustees of the Social Science Research Council and serves on a number of Boards of non-profit organizations including the Pacific Institute.

Faculty web site: http://geography.berkeley.edu/people/person_detail.php?person=21

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: 19006

Not one week goes by without major articles about the oceans in print/online media such as The San Francisco Chronicle, New York Times, LA Times. Recent articles span the gamut from the March 2011 earth quake near Japan, resulting tsunami damage to a nuclear reactor, and subsequent radionuclide releases to the ocean which are still being tracked 3 years later... to James Cameron diving to the deepest Ocean Trench in a novel submarine... to the latest news on changing climate and Arctic sea ice melting. Seminar participants will chose topic areas to be covered and lead in class discussion. 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. The seminar will close within two weeks of the start of classes. **Students will not be able to add this course after the first two weeks of the semester.**

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 web page.

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

Earth and Planetary Science 24, Section 3
Geosciences in the Movies (1 unit, P/NP)
Professor Michael Manga
Wednesday 1:00-3:00, 401 McCone, CCN: 19384

Movies can be an effective way to spread information about science and its relevance to society. Science in movies, however, is often wrong and misleading. In this seminar we will watch and critique a set of modern popular movies that address topics in geoscience, environmental science, and planetary science. Is the science right? Does it matter? Was the movie effective? Movies to be discussed and reviewed cover topics in planetary science that range from the core to the search for life beyond our solar system.

Michael Manga is a Professor of Earth and Planetary Science. His areas of expertise include planetary science, fluid mechanics, hydrology, geodynamics, and physical volcanology.

Faculty web site: <http://seismo.berkeley.edu/~manga/rsch.html>

Earth and Planetary Sciences 24, Section 2
Strategies for Climate Treaty Verification: Mapping Urban CO₂ Emissions in Real Time (1 unit, P/NP)
Professor Inez Fung
Friday 10:00-12:00, 401 McCone, CCN: 19008

This seminar will meet on 1/24, 1/31, (skip 2/7), 2/14, 2/21, 2/28, 3/7 and 3/14.

The negotiation of a legally binding global climate treaty to curb greenhouse gas emissions has been a central strategy to mitigate climate change. Implementing such a treaty requires verifying current levels of emissions and future improvements as well as developing practical strategies for reducing emissions. Urban areas are an important target because they account for the majority of global energy-related emissions. In this seminar, we will use a state-of-the-art mobile measurement network to map urban carbon dioxide in real time in the Bay Area. Defining our experimental objectives and collecting carbon dioxide data by deploying sensors around our target will be the goals of the first part of the seminar. We will then use our measurements as a basis for a discussion about challenges and strategies for tracking and reducing emissions.

Inez Fung has been studying climate change and the carbon cycle for more than twenty years, and she has contributed to the development of numerical models to represent the geographic and temporal variations of sources and sinks of carbon dioxide around the globe. She was a contributing author to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, published in 2007. She joined the Berkeley faculty in 1998 in EPS and ESPM, as the first Richard and Rhoda Goldman Distinguished Professor in the Physical Sciences. Inez Fung is also a subject in a biography series for middle-school-aged readers, "Women's Adventures in Science", launched by the National Academy of Sciences. The title of her biography is "Forecast Earth".

Faculty web site: <http://www.atmos.berkeley.edu/~inez/>

English 24, Section I
The Arts and Culture at Berkeley and Beyond (1 unit, P/NP)
Professor Genaro Padilla
Wednesday 3:00-4:00, 205 Wheeler, CCN: 27943

In this seminar we will read the work of Berkeley poets, study the paintings, sculpture, and video installations in our own Berkeley Art Museum, attend musical and theatrical performances at Zellerbach Hall, see and discuss films at the Pacific Film Archive (PFA) on campus and, if possible, we will plan a visit to the Oakland Art Museum and perhaps one of the art museums in San Francisco. My aim is quite simply to introduce first-year students to the astonishing range of cultural production on the campus and in the Bay Area.

Many, if not most, of the musical, film and theater events take place in the evening, so I will ask that you keep many of your Wednesday and Thursday, and some weekend, evenings open for attending performances. I can't schedule our events until I see what is offered for the spring, and that probably won't be until later in the fall semester. 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.

Genaro Padilla is Professor of English, Associate Dean of Undergraduate Advising in the College of Letters and Sciences, and Faculty-in-Residence at the Clark Kerr Campus.

Faculty web site: <http://english.berkeley.edu/profiles/61>

English 24, Section 2
Seeking Justice (1 unit, P/NP)
Professor Donald Friedman
Wednesday 2:00-4:00 , 305 Wheeler, CCN: 27946

This course, like its title, has both a subject and an object. Its subject is argument; its object is to study how arguments are constructed, what the rhetoric of persuasion consists of, what constitutes evidence, how to identify good logic and weak reasoning. But the ultimate purpose of such study is to strengthen our abilities to make sound decisions and formulate our ideas clearly; that is, to provide practice in assessing analytical thinking and lucid expression. We are often told how important it is to “speak truth to power,” but we need also to know how difficult it is sometimes to decide what the truth is, and how challenging it can be to learn how to “speak” effectively and to the purpose.

The course will be divided into two parts, each devoted to a different kind of reading material. The first part will engage two crucial debates in John Milton’s epic poem *Paradise Lost*: the discussion between God and the Son about the meanings of justice and mercy, and the argument between Adam and Eve in Book IX about the conflict between individual freedom and the rule of law. For the second part of the course we will read at least (or perhaps at most) two decisions of the Supreme Court of the United States, chosen not primarily for their topical significance but rather for their arguments, which show most clearly how the two sides of a difficult question engage each other clearly and directly (rather than simply stating opposed positions). Just as our judicial system is based on an adversarial structure—in recognition that the clash of ideas is the best arena we have so far found in which to decide hard cases—we will turn to debates as a fit model for our study. **This seminar is part of the Connections@Cal initiative.**

Professor Friedman was educated at Columbia College, Trinity College, Cambridge University, and Harvard University. He taught in the English Department at Berkeley from 1961 to 2001, and at Stanford and University College, London University. His particular interests in seventeenth-century English literature include Milton, Marvell, Donne, Herbert et. al. but also Shakespeare, the history of drama, philosophy, and constitutional law.

English 24, Section 3
Mark Twain's Boys (1 unit, P/NP)
Professor Richard Hutson
Wednesday 12:00- 1:00, 205 Wheeler, CCN: 27949

In past freshman seminars, I have used various novels of Mark Twain to look at his political views. In this seminar I would like to focus on Twain's exploitation and success with children as the center of three of his most popular books: *The Prince and the Pauper*, *The Adventures of Tom Sawyer*, and *The Adventures of Huckleberry Finn*. Intellectuals and writers in the post-Civil War era in the U.S. began to question childhood in interesting ways, no doubt as a response to the great changes in U. S. politics, culture and industry. Children seem to be the key to the transformations taking place in the U.S. And, from the Civil war to World War I, writing about children and with children as the heroes and heroines of fiction is a major expression of popular entertainment, and Mark Twain is the major writer of books with children as the heroes and, thus, the beneficiary of this cultural development in the focus on children. We will read the books and consider some of the developments in the new study of children in this period. **I am interested in any student who is willing to keep up with the reading and especially willing to discuss with other students ideas that arise from the reading and discussion. This seminar is part of the Food for Thought Seminar Series.**

I have taught in the English and American Studies Program for over forty years until my recent retirement. My specialty is American culture and history, with special focus on the U.S. between the Civil War and World War I. I have published a number of essays on American popular culture, especially on film produced before World War I.

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

English 24, Section 4
Films of Alfred Hitchcock (1 unit, P/NP)
Professor Mark Goble
Wednesday 2:00-3:00, 111 Kroeber Hall, CCN: 27952

We will watch and discuss films that span the length of Alfred Hitchcock's cinematic career, with a special focus on "Vertigo," "Rear Window," "Psycho" and other masterpieces from the decades after World War Two. In addition to discussing Hitchcock's style and place in film history, we will also explore how his work reflects on the period's politics and popular genres.

Mark Goble is Associate Professor in the English department, and specializes in 20th and 21st century American literature, as well as film and media studies.

Faculty web site: <http://english.berkeley.edu/profiles/156>

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, 214 Haviland Hall, CCN: 28966

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://ourenvironment.berkeley.edu/people_profiles/david-wood/

Environmental Science, Policy, and Management 24, Section 2
Insects, Ticks and Human Diseases (1 unit, LG)
Professor Robert Lane
Monday 2:00-3:00, 410 Wellman Hall, CCN: 28968

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://ourenvironment.berkeley.edu/people_profiles/robert-s-lane/

Environmental Science, Policy, and Management 24, Section 3
Diversified Farming and Sustainable Agriculture in Practice (1 unit, P/NP)
Professor Kathryn De Master
Saturday and Sunday , In the field and classroom, CCN: 28969

This seminar will take place on March 8 and 9, 2014. Professor De Master will e-mail students with times and locations.

This seminar explores examples of diversified farming systems and models for sustainable agriculture by combining field observation and lecture during an intensive weekend of instruction and interaction. We will examine several Bay Area models for diversified farming and sustainable agriculture, visiting rural and urban farms and an agro-ecological center to learn about the opportunities and challenges faced by today's farmers who seek to adopt methods that may differ from "conventional" farming. This seminar explores these questions: what characterizes diversified and/or sustainable agriculture, and what are the opportunities and barriers to its implementation? **This seminar is appropriate for anyone with an interest in alternative food systems who is keen to explore area farms and learn from regional models for sustainable/diversified agriculture.**

Kathryn De Master is an Assistant Professor of Agriculture, Society and Food Security at UC Berkeley, where she joined the department of Environmental Science, Policy, and Management in 2013. Her scholarship explores rural transitions, agri-environmental policies and incentives, diversified farming systems, and food justice/food sovereignty. Kathryn grew up on a farm in NW Montana, received her PhD from UW-Madison in Wisconsin, and recently held a visiting position at Brown University.

Faculty web site: http://ourenvironment.berkeley.edu/people_profiles/kathryn-de-master/

Ethnic Studies 24, Section I
Minorities and the Future of a Two-Party System (1 unit, P/NP)
Professor Alex Saragoza
Wednesday 2:00-3:00, 80 Barrows Hall, CCN: 31036

This seminar examines the implications of the inordinate support of the Democratic party by minorities (Latinos, African Americans, and Asians). The seminar will address why this trend has taken place, and with what repercussions for both the Republican party and the Democratic party. Particular attention will be given to the role of minorities in the composition of congress and in electoral races since 2008. California will receive much consideration, as well as other major electorally important states, such as Illinois, Florida, New York, and Texas. **This seminar is part of the Connections@Cal initiative.**

Professor Alex Saragoza regularly teaches the course on Mexican migration for the Department of Comparative Ethnic Studies. He has published and lectured extensively on the topic. An essay that he authored appeared in a recent collection on the subject, entitled "Beyond la Frontera: A History of Mexico-U.S. Migration," published by Oxford University Press (2011).

Faculty web site: <http://ethnicstudies.berkeley.edu/faculty/profile.php?person=15>

French 24, Section I
An Introduction to the Films of the French New Wave (1 unit, P/NP)
Professor Nicholas Paige
Monday 5:30 - 7:30 p.m. and Tuesday 2:00 - 3:00 p.m. , two locations - see below, CCN: 32308

Mandatory weekly screenings will take place on Mondays from 5:30 - 7:30 p.m. in 126 Barrows Hall. Discussions will take place on Tuesdays from 2:00 - 3:00 p.m. in 126 Dwinelle Hall.

This seminar will introduce students to a number of representative films of the French New Wave, perhaps the most important and emblematic moment in modern cinema, and a point of reference for filmmakers ranging from Quentin Tarantino and Martin Scorsese to John Woo and Wong Kar-Wai. Along the way, we will look at the theoretical and cultural factors that help explain this extraordinary flowering of filmmaking talent in the late 1950s and early 1960s; and we will also be reading some important short essays from the period that will help bring the films' originality into focus. Movies screened will be subtitled and will include works by Truffaut, Godard, Varda, Demy, Rohmer, Eustache, and others. **Course will be accessible to the general student body. No French necessary. Interest in film history is a plus.**

Professor Paige teaches mainly classes in seventeenth- and eighteenth-century French literature and culture, with special interest in aesthetics and the history of the novel. A new book on the latter will be coming out in Fall 2011. He has also published on the director Jean-Luc Godard.

Faculty web site: <http://french.berkeley.edu/people/detail.php?person=12>

German 24, Section 1
Language and Identity (1 unit, P/NP)
Professor Claire Kramsch
Thursday 12:00-2:00, 282 Dwinelle, CCN: 37266

This seminar will meet for eight weeks, beginning January 23, 2014.

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

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

Faculty web site: <http://german.berkeley.edu/people/showprofile.php?id=7>

German 24, Section 2
Nietzsche at the Movies (1 unit, P/NP)
Professor Karen Feldman
Monday 1:00-2:00, 282 Dwinelle Hall, CCN: 37268

In this freshman seminar we will read and discuss short excerpts from the work of Friedrich Nietzsche and relate those excerpts to popular films. We will focus on the following topics: Apollo vs. Dionysus;

strength and weakness; truth and representation; history; and repetition. The goal is to develop a cursory understanding of some central Nietzschean concepts.

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

Faculty web site: <http://german.berkeley.edu/people/professors/karen-feldman/>

History 24, Section I

A Superpower Transformed: History, Strategy, and American Foreign Policy in the 1970s (1 unit, P/NP)

Professor Daniel Sargent

Friday 3:00-4:00, 3104 Dwinelle Hall, CCN: 39213

The United States began the 1970s mired in the Vietnam War and ended it waylaid by oil crises, economic disarray, and resurgent Cold War hostilities. For historians and others, the 1970s have long been a forgotten—and forgettable—decade. This seminar suggests a different perspective. The 1970s, students will learn, brought great changes, especially for the role of the United States in the world. The decade forced Americans to confront the stirrings of globalization, and it encouraged them to contemplate the possibilities of universal human rights—as both an ideology and a foreign-policy goal. While the Cold War still endured, the maligned 1970s forged new and distinctive patterns of "post-Cold War" politics, some of which endure through to the present day. Students will encounter the 1970s through a book manuscript that Professor Sargent is currently preparing for publication. Besides engaging the history and historiography of the 1970s, the seminar will also give students the opportunity to see how a historian goes about the work of writing a book manuscript. Reading will comprise approximately one chapter per week plus one or two historical documents. **This seminar is part of the Food for Thought Seminar Series.**

Daniel Sargent is assistant professor of history at UC Berkeley, where he has taught since 2008. He earned his PhD in international history from Harvard University in 2008. His interests include U.S. foreign relations, human rights, international relations, and international political economy. He is the co-editor of *The Shock of the Global: The 1970s in Perspective*, and has published a variety of journal articles and book chapters on U.S. foreign policy in the 1970s. His current research project will be published as *A Superpower Transformed: History, Strategy, and American Foreign Policy in the 1970s* by Oxford University Press in 2014-15. His next major research project will explore the international politics of global economic governance since the nineteenth century.

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

History 24, Section 4

Chinese Film on Contemporary Issues (1 unit, LG)

Professor Michael Nylan

Wednesday 11:00-12:00, 3205 Dwinelle Hall, CCN: 39222

This seminar will examine Chinese films (documentaries, semi-autobiographical ruminations, and feature films) that speak to contemporary political concerns.

The movies of Jia Zhangke will be featured prominently, along with the early films of Zhang Yimou, and more recent blockbusters (e.g. "Confucius" with Chow Yun-fat). Taiwanese movies will be featured alongside Chinese movies. **If this seminar is over-subscribed, we will depend upon instructor approval, but otherwise the course is open. 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.**

I have long been interested in the history of Confucianism, a fact demonstrated by numerous publications. In book form, these publications include *The Five 'Confucian' Classics*, *The 'Great Plan' Chapter of the 'Book of Documents'*, and a forthcoming work, *Lives of Confucius* (Random House).

Faculty web site: <http://history.berkeley.edu/people/michael-nylan>

History of Art 24, Section I

Translating Pictures: Early Modern Cultural Exchange (I unit, P/NP)

Professor Todd Olson

Thursday 2:00-4:00, Bancroft Library, CCN: 04894

This seminar will meet on 1/23, 1/30, 2/6, 2/20, 2/27, 3/6 and 4/3/14.

Pictures are often taken to be a universal language available to diverse linguistic communities. We assume that two stick figures painted on a sheet of metal warns drivers, regardless of their cultural knowledge or language, that a school is nearby. However, such “reading” of pictures is based on learning a visual language and its conventions. Assuming that pictures are universal signs can lead to mistranslations and the production of new meanings. This seminar will examine the transmission and exchange of pictures during a major period of cultural convergence, European intervention in the Americas and Asia during the sixteenth century. The French, Dutch and English who interacted with non-European peoples made assumptions about the universality of visual communication and left pictorial records in prints. The Spanish who conquered Mexico encountered complex societies with sophisticated pictorial traditions. The survival of the glyphic traditions in copies of Mexican codices and post-Conquest documents entailed the (mis)translation and convergence of European and indigenous pictorial conventions. Participants in the seminar will work with materials in the collection of the Bancroft Library. Several seminar meetings will take place in the Bancroft Library, where we will discuss readings and examine materials in the collection. Each member will select an illustrated book or other object, such as a map or a print, in consultation with the instructor, conduct research and present a short, exploratory final paper to the group. The group will pool together their diverse linguistic and visual capacities.

Todd Olson is the author of *Poussin and France: Painting, Humanism and the Politics of Style* (Yale University Press, 2002) and *Caravaggio's Pitiful Relics* (Yale University Press, 2014). His fields of research and teaching include early modern Europe, colonial Latin America, and the trans-Atlantic world. His main areas of interest are class and sexuality in visual representation, transcultural materiality, history of art criticism and theory, and the politics of collecting. He has two books in progress: *Survivals: The Migration and Transmission of Graphic Media in Early Modern Europe and the New World*; and *Jusepe de Ribera (1591-1652): Skin, Repetition and Painting in Viceregal Naples*. His recent publications include “Markers: Le Moyné de Morgues in Sixteenth-Century Florida,” in *Seeing Across Cultures in the Early Modern Period*, eds. Dana Leibsohn and Jeanette F. Peterson (Ashgate, 2012) and “Reproductive Horror: Sixteenth-Century Mexican Pictures in the Age of Mechanical Reproduction” (*Oxford Art Journal*).

Faculty web site: <http://arthistory.berkeley.edu/person/1639606-todd-olson>

Integrative Biology 24, Section I

The Darwinian Revolution (I unit, LG)

Professor Brent Mishler

Thursday 10:00-11:00, 4110 Valley Life Sciences Building, CCN: 42003

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, 4110 Valley Life Sciences Building, CCN: 42027

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. **This is a Creating Change Theme Seminar.**

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/people/faculty/carlsont>

Integrative Biology 24, Section 2
Animal Navigation: Which way is home? (1 unit, LG)
Professor Roy Caldwell
Monday 2:00 - 3:00, 5192 VLSB, CCN: 42006

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.

My research interests lie in invertebrate behavior and ecology with much of my work centering on the behavioral ecology of stomatopod crustaceans, a group of tropical marine predators. The initial focus of this research was on how the evolution of potentially lethal weapons influenced stomatopod biology. These studies dealt mainly with communication and the function of aggression. More recent research has expanded to include the evolution of mating systems, interspecific communication, sensory ecology, prey selection, the biomechanics of the strike and larval biology. We are currently initiating studies on the genetic structure of stomatopod populations attempting to deduce the timing and pathways of dispersal. We have also used stomatopod populations as bio-indicators to assess the health of tropical coastal habitats. I have also become interested in the behavior of blue-ringed and other pygmy octopuses. We are currently studying the reproductive and aggressive behavior of several Indo-Pacific species. Much of my research is centered in the tropical Indo-Pacific including programs at Lizard Island, Moorea, and Indonesia.

Faculty web site: <http://ib.berkeley.edu/people/faculty/caldwellr>

**Integrative Biology 24, Section 3
Communicating Global Change Science (1 unit, P/NP)
Professor Anthony Barnosky
Tuesday 2:00-4:00, 5053 VLSB, CCN: 42009**

This seminar will meet every Tuesday finishing on 3/4/14

This seminar has two goals. The first is to familiarize students with the scientific evidence behind and implications of the five most important environmental issues of our time: climate change, extinctions, loss of non-human dominated ecosystems, pollution, and population growth and consumption patterns. The second goal is to demonstrate how relevant scientific discoveries can be translated to policy makers and the general public such that global change can be guided by our choices, rather than resulting in costly surprises that disrupt society. **Students who are interested in learning how they can make a difference by communicating science to world leaders and the general public should take this course. A science background is not required, but students should have an interest in solving global environmental issues like climate change, extinctions, ecosystem loss, pollution, and overpopulation.**

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/>

**Integrative Biology 24, Section 4
California's Rocky Seashores: Their Natural History and Community Ecology (1 unit, P/NP)
Professor Wayne Sousa
Monday 2:00-3:00, 4110 VLSB, CCN: 42011**

Rocky intertidal communities are fascinating collections of beautiful and bizarre organisms that exhibit many unique morphological and behavioral adaptations to life at the land-sea interface. Studies of these communities have yielded ground-breaking perspectives on the processes that structure natural

communities, and the rocky seashore habitat has proven to be a superb testing ground for ecological theory.

We will read and discuss classic studies of the ecology of rocky seashores on the Pacific coast of North America. These discussions will be complemented by photographic tours of the habitat and its organisms. A weekend field trip to a local seashore will afford the students an opportunity to see first hand the organisms, physical processes, and species interactions discussed in class.

Wayne Sousa is a community ecologist. His research has examined the effects of disturbance on the structure and dynamics of ecological communities and patterns and mechanisms of host-parasite interactions. His work has included studies of ecological succession on rocky seashores, snail-larval trematode interactions in estuarine salt marsh habitats, and the role of lightning-generated canopy gaps in the regeneration of mangrove forests on the Caribbean coast of Panama.

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

Integrative Biology 24, Section 5
Plants of the UC Berkeley Botanical Garden (1 unit, P/NP)
Professor David Ackerly
Friday 9:40- 12:05, Hearst Mining Circle, H Shuttle, CCN: 42012

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? How do plants evolving on islands change? 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. **Depart: Hearst Mining Circle, H shuttle, 9:40 AM (bring your Cal ID - board at 9:35)**
Return: Hearst Mining Circle, H shuttle, 12:05 PM

What you need: We will be walking the grounds of the Botanical Garden during each class; wear comfortable shoes and bring a warm jacket, raincoat or umbrella, if necessary. A water bottle in hot weather may be useful. Bring a clipboard or stiff-backed notebook, and a pen and pencil (pencil works better in the rain). This seminar is part of the Connections@Cal initiative.

David Ackerly is the Gill Professor in Natural History in the Department of Integrative Biology at the University of California Berkeley. A native of New England, he conducted his Ph.D. and post-doctoral research at Harvard University, with field work in Brazil, Mexico, New England, and Japan. Professor Ackerly and his research group study plant ecology and evolution, with a special focus on the native plants of California. Current work examines potential impacts of climate change and the implications for biodiversity conservation and land management, with a focus on the Bay Area. At Berkeley, Professor Ackerly teaches courses on Ecology, Biodiversity, and Plants of the UC Botanical Garden.

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

Integrative Biology 24, Section 7
The Age of Dinosaurs: What Do We Know? (1 unit, LG)
Professor Kevin Padian
Wednesday 12:00- 1:00, 5192 VLSB, CCN: 42018

Dinosaurs were big funny animals, and "Jurassic Park" was cool. But what's behind all this? In this seminar we use dinosaurs to explore how we know what we know about extinct life, and the methods and approaches that scientists use to study evolution in general. We also explore common myths, such as the idea that dinosaurs were slow and slow-witted, and that an asteroid drove them to extinction. Berkeley's Museum of Paleontology is the largest collection of fossils in any university in the world, and we use it on a weekly basis in this course. 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 is constructed. 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/directory/detail/5468/>

Integrative Biology 24, Section 8
Randomness and Heritable Memories in Biology (1 unit, LG)
Professor Han Lim
Monday 10:00-11:00, 4110 VLSB, CCN: 42021

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/limh>

Journalism 24, Section 1
Prison Life in Movies and TV: Media Images of the Culture of Punishment 1930-2014
(1 unit, LG)
Professor William J. Drummond
Monday 2:00-3:30, 127 Northgate, CCN: 48003

10 Meetings 2/4-4/1, 4/15

The seminar will explore society's shifting notions of prison life, as evidenced by movies and TV programs. The students will view each week an important piece of cinema or television. Each example will be a launching pad into a discussion of themes of race, class and gender; identity; criminal justice; incarceration per se; crime; deviance and social control. The class will begin with vintage penitentiary movies (The Big House, starring Humphrey Bogart, 1930) and follow the evolution of the genre through HBO's hit series, Orange Is The New Black. The viewing experience will be supplemented by readings, including McLennan,

R.M. (2008) "The crisis of imprisonment." **This seminar is part of the Connections@Cal initiative. 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. . 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/>

Linguistics 24, Section 1
Language Myths (1 unit, P/NP)
Professor Larry Hyman
Wednesday 10:00-11:00, 127 Dwinelle Hall, CCN: 52327

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 that 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

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, 237 Cory Hall, CCN: 53103

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://www2.mse.berkeley.edu/ourfaculty/chrzand>

Materials Science and Engineering 24, Section 3

Why Things Break (1 unit, P/NP)

Professor J. W. Morris Jr.

Friday 10:00-11:00, 348 Hearst Mining Building, CCN: 53106

We experience materials failures on an almost daily basis. They range from the merely annoying to the problematical to the disastrous. In this seminar we shall review the different kinds of materials failures, explore their causes, and learn how to recognize, distinguish and analyze them on the basis of their physical features. We'll discuss historical examples that range from the catastrophic to the bizarre.

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://www2.mse.berkeley.edu/ourfaculty/morrisj>

Materials Science and Engineering 24, Section 4

Fiascos of Engineering Management (1 unit, P/NP)

Professor T.M. Devine

Tuesday 4:00-5:00, 348 Hearst Mining Circle, CCN: 53108

The seminar focuses on the critical role of management in determining the success or failure of engineering projects. Six case studies are analyzed with the objective of arriving at a set of guidelines for the successful management of large engineering projects. Case studies are conducted, starting with the United States Nuclear Navy, which is offered as the gold standard of engineering management. Other cases analyzed are the partial meltdowns of three reactors at the Fukushima-Daiichi Nuclear Power Plant; leaking of the Alaska Pipeline managed by BP and the explosion of the BP Texas City oil refinery; the explosion of the Challenger Space Shuttle; corrosion and leaking of the reactor of the Davis Besse commercial nuclear power plant of northern Ohio; fracture and corrosion of key structural components of the new Oakland-San Francisco Bay Bridge. **The seminar considers the bureaucracy and management of large corporations, which can either assist or impede engineers who are trying to "do the right thing." I think the seminar would be of particular interest and value to engineering majors.**

Professor Thomas Devine served for eleven years as a metallurgist at General Electric's Corporate Research and Development Center before joining the Department of Materials Science and Engineering at Berkeley in 1985. His research is focused on the corrosion of materials employed in the production, storage and transmission of energy.

Mathematics 24, Section I
Mathematics of Sound and Vibration (1 unit, P/NP)
Professor Maciej Zworski
Wednesday 4:00-5:00, 89I Evans Hall, CCN: 53763

A vibrating string produces sound with waves of certain lengths. And by hearing that sound you can (in principle) tell the length of the string. When you fill a glass with water you can tell when you are close to the top with your eyes closed: the pitch of the sound gets higher. Mathematics and physics of these precise phenomena can be very complicated but the basic theories behind wavelength and pitch and the recovery of the object from hearing its sound are elegant and universal. The seminar will be an easy-going introduction to some of that.

Maciej Zworski is a Professor of Mathematics at UC Berkeley. His research interests include partial differential equations and mathematical physics.

Faculty web site: <http://math.berkeley.edu/~zworski/>

Mechanical Engineering 24, Section I
Art and Science on Wheels (1 unit, P/NP)
Professor Benson Tongue
Wednesday 12:00- 1:00, 254 Sutardja Dai Hall , CCN: 55303

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 likes to profess in the Department of Mechanical Engineering. His interests lie in the fields of vibrations, dynamics and controls, not to mention Scottish dancing, bicycling, fast cars, bird watching, photography and playing around with Photoshop. His books, Principles of Vibrations and Dynamics: Analysis and Design of Systems in Motion, make great bedtime reading.

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

Media Studies 24, Section I
Keeping Informed in the Digital Age: Reading the New York Times (1 unit, P/NP)
Professor Thomas Goldstein
Wednesday 12:00- 1:00, 3I Evans Hall, CCN: 56703

This seminar will explore what keeping informed means in the digital age. It will also offer strategies on how to be well informed. **I look for eager, enthusiastic students who want to know how to figure out what is going on in the world.**

Tom Goldstein, Director of the Media Studies Program, is the former Dean of the journalism schools at Berkeley and Columbia. He was a reporter at the New York Times, the Wall Street Journal and other newspapers.

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

Media Studies 24, Section 2

Exploring the News (1 unit, P/NP)

Professor Neil Henry

Wednesday 10:00-11:00, Bancroft Library, Room 267, CCN: 56705

This course will examine the forces shaping the news in American society, who produces it, by what means it is delivered, who consumes it, and what roles it plays in informing the public. Certain basics of news reporting and writing will also be covered. Keen attention to following the news—online, broadcast, and print journalism—will be required, as will consistent participation in classroom discussions. Several short writing exercises will be assigned.

Neil Henry worked for sixteen years as a staff writer for The Washington Post and Newsweek magazine prior to joining the faculty in 1993. A former national correspondent and Africa Bureau Chief for the Washington Post, Professor Henry has won awards from the John S. and James L. Knight Foundation, Associated Press, and Robert F. Kennedy Memorial for his reporting and writing. He is the author of a 2002 racial memoir, *Pearl's Secret*. His second book, *American Carnival*, which examines the news industry's adjustments to the digital age, was published in 2007. Between 2007 and 2011, Professor Henry served as dean of the Graduate School of Journalism, attracting three endowed chairs under the Hewlett Challenge and hastening the School's curricular transition to incorporate digital skills training. A graduate in Politics from Princeton University, Professor Henry earned his Master's degree from Columbia University's Graduate School of Journalism.

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

Middle Eastern Studies 24, Section I

Current Events in the Middle East (1 unit, P/NP)

Professor Emily Gottreich

Monday 3:00-4:00, 104 GPB, CCN: 57006

This seminar will ask students to engage with Middle Eastern political, cultural, and environmental issues as presented in the media. Those who are enrolled will be required to read The New York Times each week and identify current Middle East-related news to present to their peers for discussion. Differing perspectives on the news, especially academic approaches to and understandings of specific events, will be of particular interest. Students should expect vigorous engagement and critical thinking.

Professor Gottreich is co-Chair of the undergraduate major in Middle Eastern Studies and Vice Chair of the Center for Middle Eastern Studies. She specializes in North African history.

Faculty web site: <http://cmes.berkeley.edu/people/admin-faculty/profile-emily-gottreich>

Molecular and Cell Biology 90A, Section I

Sampling the Performing Arts at Berkeley (1 unit, P/NP)

Professor Jack Kirsch

Tuesday 5:00-6:00, 621 Stanley Hall, CCN: 57680

Food for Thought and performance attendance 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 part of the Food for Thought Seminar Series.**

I taught and did research in biochemistry and organic chemistry at Berkeley for many years, but always found some time for serious reading, attendance at concerts and the theater. I formally retired a few years ago, and have now reversed those areas of focus. I have taught freshman seminars devoted completely to the performing arts twice previously, and twice on other subjects.

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

Molecular and Cell Biology 90D, Section I
Chronic Viral Infections (I unit, P/NP)
Professor P. Robert Beatty
Thursday 11:00-12:00, 111 Kroeber, CCN: 57689

This seminar will discuss the basic concepts of specific human viruses that can lead to lifelong infections. We will discuss different viruses including Epstein-Barr virus, herpes simplex virus, Kaposi's sarcoma herpesvirus, varicella zoster virus, human immunodeficiency virus (HIV), hepatitis B virus, hepatitis C virus and endogenous retroviruses. We will contrast the disease and death caused by these important human pathogens. For example, Epstein-Barr virus can chronically infect 95% of the world population (billions of people) yet causes few deaths each year, whereas HIV infects millions of people and causes 1-2 million deaths each year. The various diseases caused by these viruses will be discussed along with the immune responses, vaccines and drug treatment for all of these viruses.

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 I
Brain Mechanisms Supporting Nonlogical Intuitive Judgments (I unit, P/NP)
Professor Walter Freeman
Friday 11:00-12:00, 107 Mulford Hall, CCN: 57692

In 2005 Malcolm Gladwell published a controversial book entitled "Blink: The Power of Thinking Without Thinking." He was strongly criticized mainly for lacking a scientific foundation in brain science to justify his claim that snap judgments are often superior to logical reasoning and extensive data analysis. However, Gladwell is a journalist and not a neuroscientist, and in any case the neurodynamics by which brains reach intuitive conclusions is not well known. In this seminar we will explore the interface between hard science and popular science, with particular concern for the properties of brains relating to actions forced to be taken rapidly on the basis of inadequate data, as in decisions on the battlefield, in emergency rooms, and in assessments of suitability in job interviews. This is not merely a seminar on brain science. Our aim is to review some of the evidence favoring snap judgments in Gladwell's book and then seek an explanation in brain science. The book you will read, "How Brains Make Up Their Minds," was written for readers like yourselves, who are interested but not trained in science. Your assignment will be each week to read a chapter in either or both books and find a statement or claim that you want to understand or challenge.

Freshmen of all persuasions are welcome. Please understand that Freshman Seminars offer you an opportunity to go directly to a frontier of research and participate. That means finding new information and discussing it with your peers. In a course, the teacher speaks and you listen; in a seminar, you speak and the teacher listens.

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 (1990), Pioneer Award from IEEE Neural Networks Council (1992), and Life Fellow IEEE (2001). He has authored over five hundred articles and six 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, 301 Barker Hall, CCN: 57695

All we know comes to us via our mental experience: our thoughts, feelings, perceptions, and conscious awareness. However, it is a deep mystery how the physical processes of our brain and body give rise to the subjective experience of consciousness. Some argue that the investigation of this mind-body connection is the most profound question in all of science.

Students interested in all areas of the sciences, arts, and humanities 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 nearly ten years, he has also been teaching neuroscience to Tibetan monastics in India.

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

Near Eastern Studies 24, Section 1
Egyptian Archaeology at Cal (1 unit, LG)
Professor Carol Redmount
Tuesday 1:00-2:00, 252 Barrows Hall, CCN: 61512

Cal enjoys important resources for studying the archaeology of ancient Egypt. The P.A. Hearst Museum has one of the most important collections of ancient Egyptian artifacts in the United States and the best west of Chicago. Most of the almost 19,000 ancient Egyptian objects in the collection come from excavations undertaken in the early 1900s by George Reisner, with funding provided by Phoebe Apperson Hearst. Because the museum is closed for renovations for the next two years, our access to the collection is unfortunately limited. The Museum has, however, made a display cabinet of artifacts available for class, and we will also review the history of the collection. The Bancroft Library on campus owns an important collection of papyri associated with the Hearst Museum collection; we will view some of these papyri at the library. The Bade Museum of the Pacific School of Religion also counts a few Egyptian objects among its collection; we will visit this museum. In addition, I have been directing a UC Berkeley archaeological expedition in Egypt since 2001; we will examine various aspects of this fieldwork, including recent looting of the site, in class.

Carol Redmount is an Associate Professor in the Near Eastern Studies Department. She specializes in the archaeology of ancient Egypt and directs the UC Berkeley excavations at El-Hibeh, a three-thousand-year old provincial town and cemetery site in Middle Egypt. She began her archaeological career the summer of her freshman year in college and hasn't stopped digging since. She has worked in Egypt for over thirty years and lived for extended periods of time in Egypt, Israel and Jordan. Her archaeological experience includes fieldwork in Cyprus, Tunisia, Israel, Jordan and the United States. She is also an animal lover and shares her home with two parrots, a rescue dog and three rescue cats.

Faculty web site: http://nes.berkeley.edu/Web_Redmount/Redmount.html

Nuclear Engineering 24, Section I
Nuclear Mythbusters (1 unit, P/NP)
Professor Massimiliano Fratoni
Monday 3:00-4:00, 201 Giannini, CCN: 64003

The scope of this seminar is to engage students in a discussion of common positive and negative misperceptions about nuclear technologies. In a highly interactive setting students will learn how to read information and its sources critically, how to discern reliable from faulty data, and how to read and interpret nuclear-related articles from the mass media. The technical complexities and controversies of the subject of nuclear energy will be debated outside of the expert jargon and students from all backgrounds are encouraged to participate.

Massimiliano Fratoni is Assistant Professor of Nuclear Engineering. His research focuses on advanced nuclear reactor design and fuel cycle analysis. In particular he is interested in the design of innovative reactor concepts that would improve natural resource utilization and reduce nuclear waste generation. He received PhD and MSc at the University of California, Berkeley and Laurea at Università di Roma "La Sapienza".

Faculty web site: http://www.nuc.berkeley.edu/People/Massimiliano_Fratoni

Nutritional Sciences and Toxicology 24, Section I
Mad Scientists, Movies and Reality (1 unit, P/NP)
Professor George Chang
Wednesday 11:00-1:00, Unit Two All Purpose Room, 2650 Haste, CCN: 64617

I was shocked when my seventh grade teacher told us that my father was a scientist. I thought that scientists were wild-haired crazy people who lived in darkened rooms with electrical sparks everywhere. In contrast, my father was a bald, mild-mannered man who worked quietly away in a well-lighted laboratory.

This experience illustrates the difference between the movie stereotypes and the hundreds of real scientists in a place like Berkeley. In this seminar we will watch movie depictions of scientists and then discuss how they reflect the beliefs and misconceptions of society at the time.

Students will be assigned to one of three teams, and after each screening, a team will lead a discussion of the film. Some students will focus on the stereotypes of scientists while others may touch on the background or production of the film; the film's reception by critics and audiences; or even the careers of the filmmakers and actors. After each film screening, we will discuss the students' findings.

This seminar is open to students who have taken science courses in high school. Seminar members do NOT have to be science majors in college. Even though our official focus will be on movie stereotypes of scientists, we'll inevitably spend a great deal of time talking about the purposes of a university education and how to survive the process. We will chat about study skills, preparation for examinations, and the untold secrets of mastering the STEM subjects (science, technology, engineering, and mathematics).

This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.

Professor Emeritus Chang received an AB in chemistry from Princeton and a PhD in biochemistry from Cal. From 1970 to 2007 he taught food microbiology and other food science courses. In 2005 he became the first professor in Cal's Residential Faculty Program. Professor Chang has been a martial arts fan since

he saw his first samurai movie in the 1950s. He has practiced American boxing and the major Chinese 'internal' martial arts: Tai Chi, Ba Gua, and Xing Yi Quan.

Physics 24, Section I

Physics of Sport (1 unit, P/NP)

Professor Oscar Hallatschek

Wednesday 10-11 am, 397 LeConte Hall, CCN: 69388

Physics pervades most sports, and knowing your physics can mean being one step ahead of the competition: How does an arrow find its target as it leaves the bow, how does the baseball fly as it leaves the hand of the pitcher? How to best exploit wind shadow in bike racing? What are the limitations of the human body?

To become good at almost any sport, you have to learn some physics, wittingly or unwittingly. Without knowing, you may have already discovered some interesting physics of sports all on your own, just by practicing and optimizing.

In this seminar, you can explore the physical concepts pertaining to your favorite sport, be it archery, baseball, basketball, billiards, bowling, bungee jumping, kite flying, sailing, skiing, skydiving, soccer, volleyball, you name it . . . **There are no special requirements, except for a genuine curiosity about sports and physics.**

Professor Hallatschek studied physics at the University of Heidelberg and ETH Zürich, and obtained his doctoral degree in theoretical biophysics in 2004 from the Freie Universität Berlin. In 2005 he began postdoctoral work on experimental and theoretical evolution at Harvard University, and in 2009 returned to Germany to start an independent research group on Biophysics and Evolutionary Dynamics at the Max-Planck-Institut for Dynamics and Self-Organization in Göttingen. He joined the physics faculty at Berkeley in July 2013.

Political Economy 24, Section I

Rogues, Scoundrels and Citizens: Political Economy of Smuggling and Piracy (1 unit, P/NP)

Senior Lecturer Alan Karras

Tuesday 4:00-5:00, 205 Wheeler Hall, CCN: 71203

This course examines four popular crimes: piracy, smuggling, drug trade and corruption, from historical and political economy perspectives. Students will read recent non-fiction (but incredibly fun) works in this area, as well as examine original historical records. The seminar aims to teach students how to evaluate these crimes against the state while giving the opportunity to connect past and present, an important skill to have in international social science education. **Freshman interested in the connection between history and other social sciences are encouraged to apply. This is a Creating Change Theme Seminar.**

Alan Karras is Associate Director of and Senior Lecturer in the International and Area Studies Academic Program. He is the author of *Smuggling: Contraband and Corruption in World History*, as well as several other books and articles on similar subjects. He currently serves as a member of the Executive Council for the World History Association and he has previously served as the Chair of the AP World History Development Committee for the College Board (as well as several other committees). He is also a member of the Boards of Editors for Cambridge University Press's forthcoming *Dictionary of World History* and the nine-volume *Cambridge World History*. In addition to smuggling and corruption, his research interests are in eighteenth-century Caribbean history, especially as it relates to more recent political economy.

Faculty web site: <http://iastp.berkeley.edu/People-Detail/Alan%20Karras>

Portuguese 24, Section I

Hello Brazil: Literature, Arts, Society--A Freshman Seminar designed as an Overview

(1 unit, P/NP)

Professor Candace Slater

Tuesday 2:00-3:00, 5152 Dwinelle , CCN: 86605

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. **Students curious about Brazil. Students who have a more general interest in Latin America are welcome, but this is 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 teaches courses in Brazilian Literature and Culture and the Amazon. She is interested in contemporary Brazilian writers, folk and popular traditions, and environmental problems as well as in how all three of these areas come together. She is the author of eight books and numerous articles.

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

Psychology 24, Section I

The Shattered Mind (1 unit, P/NP)

Professor Mark D'Esposito

Monday 12:00-1:00, 10 Giannini, CCN: 73907

On the first day of class, meet Professor Mark D'Esposito in the lobby of Li Ka Shing Center. Card key access is necessary to enter the Center. The entrance to the Brain Imaging Center is at the southwest corner of Li Ka Shing Center, adjacent to the corner of Oxford Street and The Crescent on the UC campus. Look for the silver letters "Henry H. Wheeler, Jr. Brain Imaging Center" behind the tall windows at that corner of the building.

In this seminar, we will read and discuss chapters from a book entitled "The Shattered Mind" by Dr. Howard Gardner. As Dr. Gardner states, "It is my purpose in this book to demonstrate that a host of critical issues in psychology can be illuminated by a thoughtful study of the behavior and testimony of brain damaged individuals." Such topics will include aphasia, amnesia and the frontal lobe syndrome. The case studies that are presented in the book will be supplemented by patients seen and cared for by Dr. D'Esposito, who is a practicing neurologist.

I am a Professor of Neuroscience and Psychology, Director of the UC Berkeley Brain Imaging Center as well as a practicing neurologist.

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

Public Health 24, Section I

The Next 75 Years (1 unit, LG)

Professor Malcolm Potts

Wednesday 5:00-6:00, 256 University Hall, CCN: 75429

How you spend your time at Cal will influence the rest of your life. Will the coming decades have as many scientific and technological advances as I have seen in my lifetime? Will there be more? Will you be more

healthy than my generation? How will climate change affect your life? Will you die in your bed or under a mushroom cloud? Will it be more or less easily get a job? What will happen to the rest of the world? Will there be more wars and terrorism, or less? Will the gap between the haves and have-nots grow wider, or will it disappear? Will we have a better understanding of how the brain works? Will we understand our appetites more clearly? Will we control ourselves, or will others control us? I'm interested in how you see the future. I think I have experiences, successes and failures to share with you. Our overall goal is to help you make the best possible decision about the major you will select. How old am I? Join the class and find out.

I am interested in learning what the incoming students know about science and technology, and twentieth-century history. I have been thinking about my own grandchildren and I suspect they may face a more challenging world than I have. I am interested in getting the freshman to think broadly and carefully about their majors. This seminar is part of the Food for Thought Seminar Series.

Malcolm Potts is a Bixby Professor in the School of Public Health. He grew up in World War II and has worked internationally in family planning, AIDS prevention and women's health for thirty-five years. He has been active during or following wars in several countries, most recently Afghanistan. He co-teaches Public Health 182: Understanding War: The Biological Origins of Human Warfare with Professor Barnes in the History Department. Professor Potts is completing a book on the wars of nature.

Rhetoric 24, Section 2

Decoding the Mysteries of Literature: an Introduction to Close Reading (1 unit, LG)
Professor Daniel F. Melia

Wednesday 1:00-2:00, 7415 Dwinelle Hall, CCN: 78376

Why does "Moby Dick" begin with "Call me Ishmael"? Is this guy's name Ishmael? If it isn't, why does he want to be called that? Find out why it is that "It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife," as Jane Austen tells us. The seminar will concentrate on a single text that is mysterious in more ways than one, Henry James's ghost story?/murder mystery? "The Turn of the Screw." The techniques of close reading and rhetorical analysis will help us at least to argue rationally about what is going on in this short novel and will give students tools that will stand them in good stead in every course they take. **Any student interested in finding out how to read with real attention to the text. Any student interested in the tools of rhetoric. This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.**

Professor Melia has taught in the Rhetoric Department since the 1970s and has offered a variety of Freshman Seminars. One of his favorite courses over the years has been one on "disorienting books and films" in which classes have examined examples in which authors seem to be going to some lengths to confuse their readers. He has published on figures as disparate as Aristotle and George Lucas. He is a former Jeopardy! champion.

Faculty web site: http://rhetoric.berkeley.edu/people.php?page_id=1056&p=62

Rhetoric 24, Section 2

Reading Photographs on Page One of the Sunday Print Edition of the New York Times (1 unit, P/NP)

Professor Michael Mascuch

Monday 1:00-2:00, 7415 Dwinelle Hall, CCN: 77859

In this course we will interpret the "photographic message" (the phrase comes from the title of an important essay by the critic Roland Barthes) of the images on the front page of the Sunday New York

Times issued for each week of the semester. Our purpose is to notice how pictures on a page function rhetorically in relation to other proximate texts, here to inform us of the "news."

Required texts: Sunday print edition of the New York Times each week of the semester and a course reader.

Michael Mascuch was educated at UC Berkeley and Cambridge University, where he earned his PhD in Modern History. His research has focused on the history of autobiography and culture. Recently, he began study of the rhetoric of images; his current research concerns photography and the Cambodian genocide, about which he is writing a book with the provisional title, "A Devastation of Vision."

Faculty web site: http://rhetoric.berkeley.edu/people.php?page_id=1056&p=61

Rhetoric 24, Section 4
Human Rights and Human Trafficking in Asia Today (1 unit, P/NP)
Professor David Cohen
Tuesday 10 am - 12 pm, 7415 Dwinelle Hall, CCN: 78385

Jan. 21 & 28; April 1, 8, 15, 22, & 29.

Human trafficking in a variety of forms is one of the most serious global human rights problems. Women, children, and men are trafficked for sexual exploitation, for labor that may involve debt bondage or enslavement, for organ trafficking, for sale or adoption, etc. Asia is one of the most important regions for global trafficking networks, encompassing destination and source countries, and international criminal organizations. It is a multi-billion dollar per year business. Trafficking has been addressed through various international human rights conventions, regional frameworks, and a multiplicity of local, national, regional, and international programs designed to prevent it. Yet it persists and grows, and millions of individuals every year fall victim, many of them losing their homes, families, or lives in the process. This seminar will look at the scope, nature and causes of the problem, the international legal framework that aims to suppress it, and the successes and failures of various anti-trafficking initiatives from the community level to the United Nations. We will read a wide variety of materials ranging from legal documents, to reports of anti-trafficking agencies, to analyses of trafficking issues in particular communities, as well as accounts by victims who have escaped from being trafficked and devoted themselves to combatting it. **This seminar will run 7 weeks. It will meet the first 2 weeks of the term (Jan 21, Jan 28) and then resume April 1, 8, 15, 22, and 29.**

Professor 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 1
The Mystery and Fascination of the Balkans (1 unit, P/NP)
Professor Ronelle Alexander
Friday 10:00-11:00, 6115 Dwinelle Hall, CCN: 79735

The Balkans as a region have always fascinated Westerners, ranging from intrepid eighteenth- and nineteenth-century travelers seeking the exotica of "Turkey in Europe" to their modern cohorts who become enamored of Balkan culture, and especially its music—a fascination so great that a group of middle-aged and elderly Bulgarian women who were known at home as The Bulgarian State Television Female Vocal Choir could be marketed in the West as "Le mystère des voix bulgares" (The Mystery of Bulgarian Voices), win a Grammy, and have their songs used on the soundtrack of Xena: Warrior Princess. But the

Balkan region is fascinating in a negative sense as well, that sense which has given our language the verb “to balkanize”, defined by Merriam-Webster as “to break up (as a region or group) into smaller and often hostile units”. In this class we will explore two basic questions about the Balkans: What is it that makes the region such a land of contradictions and fascination? And why—especially after the intense media attention to the violent breakup of Yugoslavia—does it remain so little understood? **No prerequisites. All interested students are welcome, both those with a Balkan background and those who know nothing about the area.**

Ronelle Alexander, Professor of Slavic Languages and Literatures (Ph.D., Harvard University), has been involved with the Balkans since she was an undergraduate. She has visited all regions of Bulgaria and former Yugoslavia, and has done extensive field work in villages throughout the southern and southeastern Balkans. Her research interests include dialectology (the relations between different geographical varieties of speech), folklore (especially the language of oral epic), and sociolinguistics (especially the relation between language and identity as connected with the breakup of Yugoslavia).

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

**Social Welfare 24, Section I
Social Justice (1 unit, P/NP)
Professor Michael Austin
Monday 4:00-6:00, 2 Haviland Hall, CCN: 80702**

This seminar will meet every Monday from 1/27 to 3/14/14.

This eight week (2 hrs/wk) one-unit seminar is designed to promote an understanding of social justice in order to provide support for future course selection, future service learning through engaged scholarship, and social problem understanding needed for effective advocacy in the future. Speaking metaphorically, this seminar is the “starter dough and yeast” needed to grow a culture of civic engagement in the form of applied liberal arts. The major tools of this learning experience include: a) a new social justice textbook (Sage 2013) edited by the instructor that features humanities and social science perspectives with case studies of social injustice and tools for locating the courage of one’s convictions, b) guest lecturers reflecting an array of social justice issues (domestic violence, food insecurity, immigrant profiling, etc) and community site visits (Social Justice Symposium and Alameda Food Bank), c) written assignments that build upon student experiences and interests, and d) assisted learning in the form of a graduate student teaching assistant. **Humanities and social science students will be able to explore the meaning of social justice and the role of advocacy. This seminar is part of the Food for Thought Seminar Series.**

Professor Austin is a member of the senior faculty who has a longstanding interest in social justice and advocacy (participated in the UC Free Speech Movement) with experience in teaching undergraduate social welfare majors (primarily seniors) and extensive experience in teaching graduate students. He has been active on campus related to committees on service learning and Cal Corps, engaged scholarship with American Cultures, and the Senate Committee on Women and Minorities (helped to craft the original ideas that appear in the current policies and initiatives of diversity and inclusion). He recently participated in the 50th Anniversary of the March on Washington in DC on August 28, 2013. He has also consulted with local advocacy groups. In addition to his recent edited volume, *Social Justice and Social Work: Rediscovering a Core Value of the Profession*, he is the author and co-author of over 100 peer-reviewed journal articles and twenty books. He has recruited a graduate student to assist with course activities and provide her own perspectives on and experience with diversity and inclusion.

Faculty web site: <http://socialwelfare.berkeley.edu/michael-j-austin>

**Spanish 24, Section I
Talking Funny: Language Variation in Spanish and English Literary Texts (1 unit, LG)**

Professor Milton Azevedo

Thursday 10:00-11:00, 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.**

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/our-faculty/>

Spanish 24, Section 2

Hispanic Cultures in the Bancroft: From the Mexican Inquisition to Chicano Posters (1 unit, P/NP)

Professor Emilie Bergmann

Tuesday 3:00-4:00, 375 Bancroft Library, CCN: 86177

The Bancroft Library is one of North America's richest repositories of documents on the long history of the Hispanic presence in California. We will explore the spring 2014 exhibit on Juana Briones de Miranda (1802-1889) at the California Historical Society, which includes items from the Bancroft. Among the treasures on our campus is a chivalric romance, the kind of book that inspired *Don Quixote*; manuscript transcriptions of Mexican Inquisitorial trials; seventeenth-century illustrated scientific studies that inspired Sor Juana Ines de la Cruz as well as the first edition of her poems (1689); maps and land grants documenting the Mexican latifundios of California; Goya's "Desastres de la Guerra"; and Mexican graphic arts from the nineteenth to the twenty-first century. Previous participants have researched the history of their Southern California home towns; color, memory, and composition in Goya's "Desastres de la guerra"; the depiction of rituals in pre-conquest Mexican historical codices; and Latin@ artists working with Mission Grafica in San Francisco. **Discussions will be in English but a reading knowledge of Spanish equivalent to 2 years of study in high school will be useful.**

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.

African American Studies 39F, Section I

Owning Your Seat At Cal: African American Student Identity (4 units, LG)

Ms. Cara Stanley

Tuesday and Thursday 3:30-5:00, 78 Barrows Hall, CCN: 00572

Utilizing an interdisciplinary framework and drawing on the discipline of African American Studies, this course will interrogate how “Black” as a racial category was constructed and codified. We will specifically examine how the construction and concept of “Blackness” manifests and how it impacts the lived reality (i.e. education, employment and housing etc.) of people classified as Black in America. We will particularly focus on how this concept of “Blackness” influences African American student identity. Students will be introduced to key campus resources and individuals that can help enhance their academic and personal experiences at Cal. Guest lectures and graduate students in the African Diaspora Studies program will serve as mentors throughout the seminar. **This course is designed to introduce freshmen and sophomores to the structures and paradigms of a research University and the array of analytical models to which you will be exposed to during your academic tenure at the University of California, Berkeley.**

Cara Stanley brings over twenty-five years of experience teaching, training and delivering academic support services in higher education. She directs the development of innovative curriculum and learning models specifically designed for students attending a research university. Employing peer based learning models that are grounded in the theoretical frameworks of constructivism, critical pedagogy, and collaborative learning; she strives to enhance and empower the learning experience of budding scholars. In addition to managing the primary academic support service on Cal's campus, the Student Learning Center, she is a lecturer in the African American Studies department. She creates dynamic courses that support students' transformation as learners, scholars and people. Cara currently teaches courses on African American Student Identity, Black Feminist Thought and The Life and Work of Audre Lorde.

Earth and Planetary Science 39A, Section I

Geological Influences in California Society Today (2 units, LG)

Professor Hans-Rudolf Wenk

Wednesday 5:00-6:00, 325 McCone Hall, CCN: 19009

There are three mandatory lectures Wednesdays 5:10-6pm in 325 McCone: January 22 (organizational meeting, attend also if you are on waiting list), January 29 and February 5. The dates of the four-day field trip (in April) will be announced at <http://eps.berkeley.edu/~wenk/EPS39-2014/39.htm> when confirmed

The focus of this course is a four-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 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. Be prepared for some strenuous hiking. Attendance at initial six class meetings (two organizational, two lectures and two video sessions) and 4-day field trip is mandatory. **Enrollment is limited to ~30 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 the instructor: [wengk@berkeley.edu](mailto:wenk@berkeley.edu).**

Hans-Rudolf Wenk is a Professor of Geology. He joined the Department of Earth and Planetary Science in 1967. His research is in crystallography, mineralogy, structural geology and rock deformation. For more information regarding Professor Wenk, please visit his faculty web page at http://eps.berkeley.edu/people/faculty_page.php?name=wenk.

**Environmental Science, Policy, and Management 39A, Section I
Green Water and Global Food Security (2 units, LG)
Professor Garrison Sposito
Monday 2:00-4:00, 203 Wheeler, CCN: 2897 I**

Global crop production must increase more rapidly than human population growth during the coming forty years in order to meet global food demand. Strategies for achieving this goal are being considered, but adverse ecological impacts of both land conversion to agricultural use and freshwater withdrawals for irrigation will strongly limit these two traditional approaches. This course will explore what the options are for feeding the world without major increases in cropland area or the amount of water withdrawn for irrigation. Our exploration will bring together recent innovative ideas about the way the global water cycle works and the ways in which crops, soils, and water interact to produce food.

I am looking for freshmen and sophomores who are interested to learn more about key global issues like food security.

Garrison Sposito is a professor in the Department of Environmental Science, Policy and Management whose academic degrees are in agriculture. He is the recipient of four Distinguished Teaching Awards, several awards for research in soil science and hydrology, as well as the Horton Medal of the American Geophysical Union, for "outstanding contributions to the geophysical aspects of hydrology."

Faculty web site: <http://www.cnr.berkeley.edu/~gsposito/Gary/>

**History 39P, Section I
Sex, Sexuality and Society (4 units, LG)
Professor Tom Laqueur
Tuesday and Thursday 12:00-2:00, 3205 Dwinelle Hall, CCN: 39242**

This course will explore, in historical perspective, why and how the nature of sexual difference, the control of reproduction, and the policing and regulation of sexual desires, practices and pleasures have loomed so large in the organization of society and culture. We will discuss the history of foundational concepts—sex, sexuality, desire—as well as more specific topics: the history of erotic literature and art, east and west; the regulation of specific practices and norms—homosexuality, auto-eroticism, birth control, abortion, age of consent; the origins of modern sexual identities (LGBT); the role of science and medicine in the history of sex, sexuality and society. Many weeks we will have a guest for our second session.

Thomas Laqueur is a cultural historian who has written on the history of education, religion, medicine, human rights and working class politics as well as, more recently, on sexuality (two books) and on questions of memory and memorialization (many articles for academic and general journals.)

Faculty web site: <http://history.berkeley.edu/people/thomas-w-laqueur>

History 39Q, Section I

Education in Society: Universities as Agents of Change, Ivory Towers, or Knowledge Factories (4 units, LG)

Professor Judith Brown

Monday and Wednesday 12:00-2:00, 3205 Dwinelle Hall, CCN: 40092

From their medieval origins to the present, universities have been among the most admired and most criticized institutions. What are their functions? What is the role of higher education and free speech on campus and in society? Who should universities serve? Do they increase social mobility or social stratification? To what uses should they put the knowledge they create? How should they interact with government agencies and corporations? Through discussions of readings, this seminar will explore the structures and functions of universities, their multiple and changing roles in society, and the reasons why they have often become the battlegrounds for new ideas about the purposes of education, the uses of knowledge, and the future directions of society.

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, 203 Wheeler Hall, CCN: 51506

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), gun control, abortion, privacy, symbolic speech, college speech codes, "hate" speech, euthanasia and racial 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.

Psychology 39N, Section I

The Science of Cute: The Psychology of our Attraction to Cute Animal Images (2 units, P/NP)

Professor Lucia Jacobs

Thursday 3:00-5:00, 2304 Tolman, CCN: 75168

Why is the internet all about cats? The goal of this seminar is to address the strange phenomenon of our obsession with cute animal images and videos that is emerging in our new internet-defined lives. In this seminar, we will discuss issues such as what is the intellectual, social and emotional function of cute animal photos and videos in our lives? What hypothesis would explain why certain species (e.g., cats, Corgis and baby sloths) are more popular than others or why cat videos are considered so much funnier than videos of other species? What kinds of animal behaviors are perceived as cute or funny and why? How do these issues effect our attitudes toward animal species, such as urban animals, pets and exotic species, and to questions of biodiversity? We will discuss these questions in light of diverse primary readings on how humans perceive and react emotionally to animals, reading both humanistic essays as well as the primary scientific literature from the fields of animal cognition, cognitive psychology and cognitive neuroscience.

This seminar could be taken by students coming from a variety of backgrounds. The main prerequisite is a deep curiosity about humans' attitudes towards animals, but specific interests in animal behavior, conservation biology and/or social psychology would all be useful background for the seminar.

Lucia Jacobs started studying tree squirrel cognition as a graduate student—her Ph.D. thesis finally answered the question, do squirrels remember where they bury their nuts? Yes! Professor Jacobs and her students have been studying the campus fox squirrels for over a decade, publishing classic studies on their ability to solve ten-foot-tall vertical mazes (they work for peanuts!), how they shake their head to weigh nuts before deciding whether to cache them and how their strategy of encoding a location in space changes through the year. Professor Jacobs and her students also study spatial orientation in voles, kangaroo rats, mice and humans, and causal reasoning in pet dogs and humans.

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

Public Health 39J, Section I

Women's Health (2 units, P/NP)

Professor Barbara Abrams

Monday 3:00-5:00, 106 Mulford Hall, CCN: 77099

This interdisciplinary course critically examines issues in women's health from medical, public health, cultural, social, historical, economic, psychological, and political perspectives. Topics addressed will include the women's health movement, reproductive health and sexuality, nutrition and physical activity, body image and representations of women in the media, racial/ethnic and socioeconomic disparities in women's health, mental health, violence against women, global issues in women's health, women in the workplace, and health concerns of women across the lifespan. Through readings, discussion, and experimental exercises, we will attempt to examine how social frameworks and structures affect women's experiences and expectations of health.

Dr. Abrams is a Professor of Public Health. She teaches courses in epidemiology, nutrition, maternal and child health and women's health. Prior to teaching at UC Berkeley, she worked as a nutritionist and taught in the Department of Obstetrics, Gynecology and Reproductive Sciences at UC San Francisco. Her research focuses on weight and women's health, particularly during and after pregnancy. She also has studied breastfeeding and the prevention of HIV transmission from mother to child in resource-poor countries.

Rhetoric 39I, Section I

Renaissance Classics from a Rhetorical Perspective (2 units, LG)

Professor Barbara Shapiro

Thursday 10:00-12:00, 7415 Dwinelle, CCN: 78382

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, Castiglioni's The Courtier, and Montaigne's Essays. **This seminar is for students who are interested in an interdisciplinary approach to classical works of the Renaissance. Students must be willing to participate in class discussion of assigned texts. The seminar is designed to help make students more at ease in seminar situations.**

I am Professor Emerita in the Department of Rhetoric. I am a historian who has taught courses on Renaissance and Seventeenth century topics in both the Rhetoric and Legal Studies Departments at UC Berkeley and in the political science department at Stanford. My focus has been on rhetorical approaches to literary, political and legal texts of the early modern period.

I am the author of several books including Probability and Certainty in Seventeenth Century England; A Culture of Fact: England 1550-1720; Beyond Reasonable Doubt and Probable Cause: Historical Studies in the Anglo-American Law of Evidence. My most recent book is Political Communication and Political Culture: England 1558-1688.

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

**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: 83206

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>

South and Southeast Asian Studies 39J, Section I
Exploring the Short Story in the Philippines and Indonesia (2 units, LG)
Professor Sylvia Tiwon and Dr. Maria Josephine Barrios-Leblanc
Friday 12:00-2:00, 125 Dwinelle Hall, CCN: 83209

In both the Philippines and Indonesia, the short story is an important vehicle for artistic, emotional and socio-political expression and experimentation. This seminar will introduce students to some of the major contemporary themes, including romance, resistance, gender, and the challenges of modernization and the new global order. The comparative perspective will enrich our understanding of the strong narrative traditions of these two important countries of island Southeast Asia. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Sylvia Tiwon is an Associate Professor in the Department of South and Southeast Asian Studies. She teaches literature, gender, oral and cultural studies of Southeast Asia with a focus on Indonesia. Her areas of interest include national and pre-national literatures, oral discourse and mythologies, as well as socio-cultural formations at the national and sub-national levels.

Faculty web site: <http://sseas.berkeley.edu/people/faculty/sylvia-tiwon>

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>

Theater, Dance, and Performance Studies 39E, Section I
Bad Acting: Its Poetics and Cultural History (2 units, P/NP)
Professor Mel Gordon
Monday 2:00-4:00, 129 Barrows Hall, CCN: 88050

Scholastic accounts of acting history normally document or analyze the work of the most celebrated stage or film performers of their eras. Lesser actors or those derided by contemporary critics are rarely included in these overviews although they are often the subject of intense audience interest, speculation, and enjoyment.

This course is a serious investigation into what critics define as "bad acting," how it varies over time and in different performance genres, why many spectators have championed its esthetics, and an in-depth analysis of underclass popular entertainment forms.

Students will be graded on classroom participation and an end-of-the-semester research paper. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Mel Gordon is Professor of Theater in the TDPS Department and author of fourteen books on Acting, Theatre History, and Popular Culture.

Vision Science 39A, Section I

Conflict Or Cooperation: The 21st Century Struggle between Science and Religion and between Multiple Faiths (1.5 units, P/NP)

Professor Stanley Klein

Tuesday 2:00-4:00, 394 Minor Hall, CCN: 66405

We will have 10.5 two-hour meetings on Tuesday afternoons.

Does the solution to many of the world's problems, including climate change, reside partly in developing new ideas for bringing harmony to the battles between science and religion and between multiple faiths? The problems and solutions involving these battles will be the central theme of our seminar. We will explore how the results of those choices can affect social policy and everyday life of citizens. Our reading material will mainly be from articles in the journals "Zygon," associated with The Institute on Religion in an Age of Science (IRAS), and "Theology and Science," published by Berkeley's Center for Theology and Natural Science (CTNS). As part of our bridge-building efforts we will also read parts of Mesle's impressive book "Process Theology" that will be given to seminar members. To realize the seriousness of the current battles in this territory we will read NY Times articles on the relevant topics as they appear. Finally, we will explore what can be done to build bridges in UC Berkeley's science/ technology and its religious communities using the understandings gained from the topics of the seminar.

Stanley Klein is a professor in Optometry, Neuroscience and Bioengineering. His present research is focused on understanding how our brains do vision. He has a commitment to finding approaches for our society to function better in meeting the challenges of the future. He is the membership chair of IRAS (see IRAS.org for details). One tidbit that could become relevant to some of our discussions is that his PhD in theoretical particle physics has made him fond of connecting the dualities of quantum mechanics to the dualities of science and religion (but zero background in physics is needed for the seminar).

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

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 1

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, 221 Kroeber Hall, CCN: 02572

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. **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. This seminar involves learning how to read handwritten Spanish colonial documents. It will be conducted in English, although you'll be reading historic documents written in Spanish. You should be comfortable reading basic Spanish documents like letters or newspaper articles (most participants with two years of high school Spanish or equivalent will be comfortable).**

Rosemary Joyce conducted archaeological field research in northern Honduras for more than thirty years, and is now developing collaborations with colleagues in the Mexican state of Chiapas, near Classic Maya Palenque. The sites she has worked at date from the Early Formative (before 1500 BCE) to the twentieth century. 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>

Anthropology 84, Section 2

Has Feminism Changed Science? (1 unit, TBA)

Professor Margaret Conkey

Wednesday 10:00-11:00, 2224 Piedmont Ave., Room 12, CCN: 03476

In this seminar, we will consider the question, "has feminism changed science?" from two perspectives: first, we will try to take the question at face value and review several fields of science, ranging from anthropology/archaeology to physics, and see if, and in what ways, the practice of the field have been influenced by feminist critiques of science and feminist issues; second, we will approach this question as an example of the anthropology or social studies of science and technology. Thus, students will get a sense both of how anthropologists study science and scientific practices, as well as what changes and influences the feminist critiques of science have had on some specific disciplines. **It would be excellent to have students from a mix of experiences in different fields, as well as potential anthropology majors, especially if students have had some science backgrounds or**

are doing a major or a minor in a science field. Such fields include the bio-chem-physics-geology-engineering-medicine type of fields but also psychology, archaeology/biological anthropology and physical geography. Students with interests in general feminist critiques, in gender/women's studies, and /or science studies are also more than welcome.

Professor Meg Conkey is an anthropological archaeologist who studies the lifeways of our prehistoric ancestors from the Ice Age period. She has also been a leading scholar in the field of the archaeology of gender and feminist archaeology. She has taught at Berkeley for more than twenty years, co-directs an archaeological field project in the French Pyrenees, and is a recent past President of the Society for American Archaeology. She has won several teaching awards, and has previously taught sophomore seminars on "Has feminism Changed Science?" and "The Caveman Mystique". Although she is currently retired from regular teaching, she is supervising graduate students, working with Undergraduate Research Apprentices and is the Executive Director of the on-campus Center for Digital Archaeology.

Faculty web site: <http://anthropology.berkeley.edu/users/margaret-w-conkey>

Astronomy 84, Section I
The Nature of Space and Time (1 unit, P/NP)
Professor Alex Filippenko
Friday 11:00-12:00, BI Hearst, CCN: 05996

We will consider the nature of space and time, especially in the context of our understanding of the overall properties of the Universe. The major topics from the following best-selling book will be discussed: "A Briefer History of Time," by Stephen Hawking. Our journey will take us through the basics of the two pillars of modern physics: quantum mechanics and Einstein's general theory of relativity. We will also explore string theory, which attempts to unify these two great fields by postulating the existence of many hidden dimensions in which packages of energy vibrate. **Though the seminar is intended for non-science majors, the discussion will be held at a fairly high level; thus, students must have already successfully completed (with a grade of "B" or higher) at least one of the following courses: Astronomy 10 (or C10), L&S C70U, Astronomy 7A, or Astronomy 7B**

Alex Filippenko received his B.A. (1979, Physics) from UC Santa Barbara and his Ph.D. (1984, Astronomy) from the California Institute of Technology. He joined the UC Berkeley faculty in 1986. An observational astronomer who makes frequent use of the Hubble Space Telescope, the Keck 10-meter telescopes, and Lick Observatory, he engages in research on exploding stars, active galaxies, black holes, gamma-ray bursts, and observational cosmology. Having coauthored over 700 articles on his research, Filippenko has received numerous awards and is one of the world's most highly cited astronomers; he is also an elected member of the National Academy of Sciences. He was a member of both groups that showed that the expansion of the Universe is accelerating with time. This discovery was named the "Top Science Breakthrough of 1998" by the editors of Science magazine, and it was honored by the 2011 Nobel Prize in Physics to the team leaders. A dedicated and enthusiastic teacher, he has won the campus Distinguished Teaching Award and has been voted "Best Professor" a record 9 times in the Daily Cal's annual "Best of Berkeley" survey. He was also named the 2006 CASE/Carnegie National Professor of the Year among doctoral and research institutions, and he won the Astronomical Society of the Pacific's 2010 Emmons Award for undergraduate teaching of astronomy. Besides being an avid tennis player, skier, and hiker, he enjoys world travel and is addicted to observing total solar eclipses (11 out of 11 attempts, so far).

Faculty web site: <http://astro.berkeley.edu/people/faculty/filippenko.html>

Economics 84, Section I
Buddhist Economics (1 unit, P/NP)
Professor Clair Brown

Thursday 3:00-5:00, IRLE Conference Room (2521 Channing Way), CCN: 22408

This seminar will meet seven times: Jan 30, Feb 6, Feb 13, (Feb 20 skip), Sunday, Feb 23 (required fieldwork), Feb 27, Mar 6, and Mar 13. Sunday, Mar 9 is the fieldwork make-up day.

In Buddhist Economics, we will explore basic economics concepts and ask how Buddha might have taught them. Some questions that we will read about and discuss: What creates happiness? What is an equitable distribution of income? How is our own well-being related to the well-being of others? Does economic growth and having more income make people better off? How would Buddha revise the basic assumptions of modern micro economics? **This course is for sophomores who have had at least one semester of economics and want to explore alternative approaches to economics. Although no prior study or practice of Buddhism or Hinduism (or any spiritual study) is required, students may find it helpful. The main requirement is that students have open and exploring minds and want to delve into a topic that has yet to be developed!**

Clair Brown has published research on many aspects of the labor market, including high-tech workers, labor market institutions, firm employment systems and performance, the standard of living, wage determination, and unemployment. Clair taught Econ I for many years, and practices Tibetan Buddhism with Anam Thubten Ripoché in Point Richmond. Her books include *American Standards of Living, 1919-1988* (Blackwell, 1994), *Work and Pay in the United States and Japan* (Oxford University Press, 1997), *Economic Turbulence* (University of Chicago Press, 2006), and *Chips and Change: How Crisis Reshapes the Semiconductor Industry* (MIT Press, 2009, 2011). Clair also heads a group of UCB faculty and students to develop Ready-Made Impact Assessment for low-cost effective assessment by social enterprises.

Faculty web site: <https://econ.berkeley.edu/faculty/807>

English 84, Section 1

High Culture/Low Culture and the Films and Writings of Woody Allen (2 units, P/NP)

Professor Julia Bader

Wednesday 2:00-5:00, 300 Wheeler, CCN: 28024

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. **Sophomores interested in learning about cultural studies, acquiring film criticism skills and expanding their cultural horizons with emphasis on techniques of film comedy would be the ideal audience. 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>

English 84, Section 2

Utopian and (mostly) Dystopian Films (2 units, P/NP)

Professor George Starr

Wednesday 7:00-10:00, 300 Wheeler, CCN: 28027

Seminar will meet 3 hours per week for entire semester.

We will mainly be viewing and discussing Utopian and anti-Utopian movies. Depending on the intended majors of those enrolled, we may use other kinds of visual material as well, from architecture, city planning, world's fairs, etc. We will not be dealing with literary Utopias or Dystopias, but some theoretical and sociological background reading will be recommended. **This seminar is part of the Connections@Cal initiative.**

Most of G. A. Starr's research and teaching has been on eighteenth-century English literature, but in recent years he has also offered courses on nineteenth- and twentieth-century California writers, and on Utopian texts and social movements.

History 84, Section I

The Origins of Historical Writing in the Ancient West (1 unit, P/NP)

David J. DeVore

Friday 10:00-12:00, 3205 Dwinelle Hall, CCN: 39243

The first historians of western civilization emerged in Israel, Greece, and Rome in the first millennium BC. They preserved information about the great empires, major personalities, and crucial events now lost to us; they established our major narratives of archetypal events such as the battle of Marathon, the foundation of Rome, and the spread of Christianity; and they have all been accused repeatedly of gross dishonesty in their portrayal of events. They are worthy of the attention of all students of both ancient history and historical writing. This course will explore how these historians constructed and presented their narratives.

Philosophy 84, Section I

Street Art (1 unit, P/NP)

Professor Seth Yalcin

Tuesday 5:00-6:00, 203 Wheeler Hall, CCN: 67227

The idea of this seminar is to broach two questions: (1) What is street art? (2) When, where, and how can it be morally permissible? The first question is broadly speaking metaphysical: it is about the nature of certain sorts of things in our social world. This part of the seminar will to some extent engage the classic, much larger question of what art is, but via the special case of street art. The second question is an ethical question. Street art characteristically appears without permission on private property, or in public spaces that are centrally controlled. It often involves violations of law. When exactly is it wrong? A special case we will discuss is this: some street artists are especially known for removing advertising and replacing it with their artwork. Is this kind of thing wrong, or always wrong? Or can it be a legitimate form of protest? With whom exactly does legitimate control of the public visual space lie?

Students of philosophy, art, art history, urban planning, and areas allied to these would be natural candidates for this course. But I will not be presupposing any specific background knowledge. So the course should make sense for any interested student prepared to think critically about these issues. 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.

Seth Yalcin is a professor in the department of philosophy. He works primarily on problems in the philosophy of language and mind, but his research interests extend to metaphysics, epistemology, linguistics, and aesthetics.

Vision Science 84, Section I

Current Topics in US Healthcare (1 unit, P/NP)

Professor Kenneth Polse
Tuesday 1:00-3:00, 491 Minor Hall, CCN: 66408

This class meets Feb 4, 11, 18, and 28, March 4 and 11, and April 1.

Problems associated with affordability and accessibility of health care in the US began to escalate in the late 1980s. Over the past twenty-five years both Republican and Democratic administrations have attempted to address these problems, but without success. In 2008, President Obama was elected on a mandate to change the health care system in a way that would provide affordable and accessible care to all Americans. After debate, controversy and compromise, on March 23, 2010, President Obama signed the Patient Protection and Affordable Health Care Act of 2010 (ACA). This was the most significant health care legislation passed since the Medicare Act of 1964. Even though ACA is law and its constitutionality has been upheld by the US Supreme Court, the path to accessible, affordable, and high quality health care has a long way to go. This seminar examines some of the major hurdles/controversies in US healthcare delivery. We will explore health care in other developed countries as well as the US in order to understand both what is wrong with our current system and possible solutions. 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. third-party medical coverage; factors driving the cost of medical care, strategies to control medical costs; the role of insurance companies, pharmacological and device manufacturers, health care delivery in other developed countries, and other topics related to health care delivery. **Students interested in healthcare should find this seminar interesting and timely. Enrollment is limited to ten sophomores. This seminar is part of the Connections@Cal initiative.**

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://optometry.berkeley.edu/research/overview-bcsdp>

Vision Science 84, Section I
Vision Research Seen through Myopia (near-sightedness) (1 unit, P/NP)
Professor Christine Wildsoet
Thursday 4:00-6:00, 394 Minor Hall, CCN: 66406

This seminar will meet for approximately 2 hours every other week starting on 01/23/14.

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. a 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://wildsoetlab.berkeley.edu/index.php?title=Wildsoet_Lab