



SPRING 2015

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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 November 10, 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 1
Language and Politics in Southern Africa (1 unit, P/NP)
Professor Sam Mchombo
Wednesday 2:00-3:00, 50 Barrows Hall, CCN: 00560**

Food for Thought dining arrangements will be discussed in class.

This seminar will focus on political developments in Southern Africa and the use of language in fostering national identity and attaining cultural emancipation. We will look at case studies representative of the dynamics of the region. The topics covered will include a brief history of the peoples of Southern Africa; family structure, kinship systems and traditional political institutions; cultural practices and religious beliefs; the impact of contact with western culture and civilization on language issues and political organization; language and its role in fostering national identity in post-independence Africa; models of national language policy in multi-ethnic societies; language use and democratic practice and human rights; the impact of AIDS on economic development and linguistic ecology; prospects of mother-education; and the use of African languages in science and technology. Since the course is a seminar, students will be expected to participate actively in the class. There will be a course reader. There will be no examinations. Grades will be based on one 500-word paper and class participation. **This seminar is part of the Food for Thought Seminar Series.**

Sam Mchombo is an Associate Professor in the Department of African American Studies and was a member of the Department of Linguistics faculty from 1988 to 2009. He received his B.A. from the University of Malawi and Ph.D. from the University of London. He pioneered and taught courses in Linguistics and African Language Structure in what is now the Department of African Languages and Linguistics in the University of Malawi. From 1985-1988 he was a member of the Linguistics faculty at San Jose State University, teaching courses on general linguistics, syntax, and semantics. His research focuses on grammatical theory and African linguistic structure. Recently, he has also focused on aspects of African politics, delivering talks at the World Affairs Council on emergent democracies, as well as human rights in Africa. His publications include *Theoretical Aspects of Bantu Grammar* (1993), *The syntax of Chichewa* (Cambridge University Press, 2004), and "Democratization in Malawi: Its Roots and Prospects," published in a volume edited by Jean-Germain Gros called *Democratization in Late Twentieth-Century Africa*. Other works include papers on "National Identity, Democracy and the Politics of Language in Malawi and Tanzania," as well as "The Role of the Media in Fostering Democracy in Southern Africa," both published in *The Journal of African Policy Studies*, "Religion and Politics in Malawi" in *Issues in Political Discourse Analysis* (2005), and "Sports and Development in Malawi" in *Soccer and Society* Vol. 7 No. 2-3, 2006. He has delivered invited lectures and conference presentations in Hong Kong, Europe, Mexico, and in Africa. In Spring 2003, he was appointed Distinguished African Scholar by the Institute for African Development at Cornell University.

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

**African American Studies 24, Section 2
Sport, Celebrity, and Controversy in American Culture (1 unit, P/NP)
Professor Bil Banks
Wednesday 2:00-3:00, 108 Wheeler Hall, CCN: 00562**

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, 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.

Architecture 24, Section I
Design Thinking, Innovation, and Future Career Paths (1 unit, P/NP)
Professor W. Mike Martin
Tuesday 1:30-3:30, 370 Wurster Hall, CCN: 03653

Class will meet on January 22 and 29, and February 5, 12 and 19, 2015.

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. **This is a course to explore how design thinking is integrated into almost all disciplines and will explore how these processes influence innovation and establish directions for future career choices. Open to all freshman students of the University.**

Professor W. Mike Martin has been at UCB for the past 20 years in the Architecture Department of the College of Environmental Design. He served as the Undergraduate Dean of CED for 11 years and completed a three-year term as Chair of the Architecture Department. Just before retiring, he served as the University of California Systems Education Abroad Director for Scandinavia from 2006-2008 in Copenhagen, Denmark. His teaching and research has focused on the study of the practice of design thinking, collaborative design, work-studies of practice, and storytelling/narrative as a means of knowledge transfer in practice and the academic community. Digital media is central to the representation of this knowledge transfer process.

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, 100E Hildebrand Library, 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, 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
Thursday 4:00-5:00, 262 Evans Hall, CCN: 11517

"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>

Civil and Environmental Engineering 24, Section I
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 Minner 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 Design, Construction and Testing of Household Clean Water Filters for Developing Countries (1 unit, P/NP)
Professor John Dracup
See days and times below. , 212 O'Brien Hall (first meeting), CCN: 14585

Class will meet: Wednesday, February 11, 6:00-8:00 pm; Saturday, February 14, 9:00 am - 2:00 pm; Saturday, February 28, 9:00 am - 2:00 pm; and Wednesday, March 4, 6:00-8:00 pm

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

These 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 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 viruses, 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. Ceramic filters are another method for removing viruses, bacteria and other contaminants from water, which passes through a wall of ceramic material

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

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.

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 AVRA. 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>

Earth and Planetary Science 24, Section I
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, and LA Times. Recent articles span the gamut from the March 2011 earthquake near Japan, resulting tsunami damage to a nuclear reactor, and subsequent radionuclide releases to the ocean which are still being tracked three 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 choose 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. **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 focus is on understanding the role of ocean biology in the control of atmospheric carbon dioxide. He loves going to sea and has logged almost two years at sea during 44 oceanographic expeditions. He and his group design, build and deploy autonomous ocean profiling robots; they have already racked up eight years of continuous observations. For more information regarding Professor Bishop, visit his faculty web page.

Faculty web site: <http://eps.berkeley.edu/people/jim-bishop>

Earth and Planetary Science 24, Section 3
Geosciences in the Movies (1 unit, P/NP)
Professor Michael Manga
Wednesday 2:00-4:00, 401 McCone, CCN: 19009

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>

Education 24, Section I
Book Smart: How to Support and Develop a Motivated, Successful Beginning Reader
(1 unit, P/NP)
Professor Anne Cunningham
Wednesday 1:00-3:00, 2319 Tolman Hall, CCN: 23502

Class will meet 2 hours per week for 7 weeks.

How do children learn to read? What are the factors that contribute to a successful, motivated reader in third grade? As future teachers or parents, students will learn about the psychological science underlying the developmental trajectory of a beginning reader in this seminar. We will discuss, for example, how the

oral language skills children acquire as a toddler influence their later reading comprehension as well as the cognitive and social-emotional benefits of shared book reading with young children.

Anne E. Cunningham (Ph.D., University of Michigan in Developmental Psychology) is Professor of Cognition and Development and Director of the Joint Doctoral Program in Special Education at the University of California, Berkeley. Known for her research on literacy and development, she examines the cognitive and motivational processes that underlie reading ability and the interplay of context, development, and literacy instruction, including the pedagogical constructs that may affect instruction.

Dr. Cunningham teaches the psychology of reading courses for the School Psychology doctoral and credential program and the reading methods courses in the Developmental Teacher Education (DTE) multi-subject credential program. She is also a former classroom teacher and reading resource specialist, having taught kindergarten through fifth grade for ten years.

English 24, Section 1

The Arts In and Around Berkeley (1 unit, P/NP)

Professor Hertha D. Sweet Wong

Wednesday 11:00-1:00, 346 Kroeber Hall, CCN: 27860

Class will meet the first seven Wednesdays of the semester.

In this seminar (that will meet the first seven (7) Wednesdays of the semester, from 11:00 am to 1:00 pm), we will explore the diverse practices of art in and around Berkeley. We will visit local galleries and artists' studios as well as arts programs and departments across campus, attend exhibit openings, see a performance, and listen to artists' talks.

Be prepared to experience a variety of venues, to write briefly about those encounters, and to engage in discussion about the contemporary practice of the arts.

Hertha D. Sweet Wong is Associate Professor in the Department of English and Chair of the Department of Art Practice. She is the author of books and essays on Native American literature, autobiography, and visual culture. Currently, she is completing a book tentatively entitled *Visualizing Identity: The Pictorial Turn in Late Twentieth-Century American Autobiography* that examines late twentieth-century American subjectivity as it is represented in visual-verbal forms: story quilts, artists' books, comic books, experimental autobiographies, word paintings, and photo-autobiographies.

Faculty web site: <http://english.berkeley.edu/profiles/75>

English 24, Section 2

Classics of World Literature: Flaubert's Madame Bovary (1 unit, P/NP)

Professor D.A. Miller

Tuesday 4:00-5:00, 305 Wheeler Hall, CCN: 27860

The seminar concentrates on Gustave Flaubert's great classic novel *Madame Bovary*. On its first publication in France, it was prosecuted as an offence to morals; it was also hailed as a masterpiece of European literature, a reputation it has maintained until this day. The course hopes to instruct students in the ambiguity that made it both great and scandalous. We will pay close attention to this text that richly deserves it. **Freshman interested either in literature or in the masterworks of European/Western/world culture will be best suited for this seminar.**

D.A. Miller was formerly John H. Hotchkis Professor in English and is currently Professor of the Graduate School. He has specialized in nineteenth-century fiction. For more information about him, please see his page on the English Department website.

Faculty web site: <http://english.berkeley.edu/profiles/55>

English 24, Section 3

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

Professor Genaro Padilla

Wednesday 4:00-5:00, 189 Dwinelle Hall, CCN: 27865

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, hopefully, 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.

We will engage in discussion based on short response papers by the students in the seminar. **I expect students who enroll in the course to commit themselves to evening performances that will be the basis of discussion at the Wednesday afternoon seminar.**

Admission to the on-campus art events is included in this course will be provided at no cost to students. 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 Faculty-in-Residence at the Clark Kerr Campus.

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

English 24, Section 4

California Detectives in Fiction and Film (1 unit, P/NP)

Professor Richard Hutson

Wednesday 10:00-11:00, 201 Wheeler Hall, CCN: 28592

For a variety of reasons, both San Francisco and Los Angeles have been great places for the work of crime and detection. Certain theorists of detective fiction have noted that such works of art are especially committed to the invocation and experience of places. Crimes and their detection/solution take place in concrete places. And California demography also allows for a variety of ethnic detectives. I plan to read three novels, Dashiell Hammett's *The Maltese Falcon*, Ross MacDonal's *The Zebra-Striped Hearse*, and Lucha Corpi's *Black Widow's Wardrobe* and screen three films: *Devil in a Blue Dress*, *Chinatown*, and *Chan is Missing*. I have Anglo, Chicana, African American and Chinese detectives—whose ethnicity allows them to enter different populations and areas to solve crimes or mysteries. **Class attendance is required. A short paper of 5 pages will be the final.**

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.

I have taught courses on San Francisco detectives and courses on the history and place of San Francisco.

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

English 24, Section 5
Campus Onomastics (1 unit, P/NP)
Professor Kristin Hanson
Friday 2:00-3:00, 201 Wheeler Hall, CCN: 28595

"Onomastics" from Greek "onoma," 'name', is a minor branch of linguistics defined as the study of proper names. In this course, we will study the proper names that are part of our everyday experience on the UC Berkeley campus—names especially of buildings, but also of scholarships and streets—as a way of exploring its history and becoming aware of the sources of our resources. In the early rainy days of the semester, we will read a brief history of UC Berkeley. Then, as the days brighten, we will walk to different locations that figure in the lives of the students in the class and learn what their names can teach us. **All students are welcome; the more various the better, because we will learn about more corners of campus.**

My principal research interest is poetic meter and other aspects of versification. I explore meter from the perspective of theories of language as a natural phenomenon, theories that hold core aspects of language, including how rhythm is structured in it, to be innate and therefore universal. In one sense, onomastics is at the extreme other end of the spectrum, being entirely about how language registers cultural history. But in another sense, the fact that my research is essentially a question of how art is made from natural materials makes me very interested in our built environment. Plus, my office is in beautiful Wheeler Hall, and I need an excuse to learn more about the work of its namesake, the historical linguist Benjamin Ide Wheeler.

Faculty web site: <http://english.berkeley.edu/profiles/35>

Environmental Science, Policy, and Management 24, Section I
Issues in Natural Resource Conservation (1 unit, P/NP)
Professor David Wood
Friday 9:00-10:00, 214 Haviland Hall, CCN: 28869

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

Some of the issues to be dealt with include management and preservation of timberlands; reducing fire risk through logging; management in wilderness areas; endangered species; importation and exportation of logs; the lives of John Muir and Gifford Pinchot; trees and religion; can rain forests be saved?; killer bees; coral reefs—human threat; jobs versus spotted owls; vegetarianism; Muir Woods, past and present; garbage in the United States; biofuels; solar power; airport expansion in the San Francisco Bay Area; the competition for water; global warming and geoengineering; 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. In 1995 he was awarded the Berkeley Citation for distinguished service to the University.

Among his numerous publications, he recently co-authored three research papers, one that is published in *Forest Ecology and Management*, one in *Forest Science* and one in *Environmental Entomology*.

Faculty web site: http://ourenvironment.berkeley.edu/people_profiles/david-wood/

Ethnic Studies 24, Section I

The Mid-term Elections of 2014: Their Meanings and Implications (1 unit, P/NP)
Professor Alex Saragoza
Wednesday 2:00-3:00, 78 Barrows Hall, CCN: 31033

This seminar will examine the outcomes of the mid-term elections of November 2014 and their meanings for the presidential race of 2016. The control of the Senate will be up for grabs, and the Republican Party (GOP) may extend their lead in the House. For Democrats, the party must hold onto -- or increase -- their support among young people, minorities, and a large number of independent voters. Regardless, this seminar will delve into the results and discuss their implications for the politics of the presidential nominations of both parties.

Alex M. Saragoza is a professor of history in the Department of Comparative Ethnic Studies; he is currently working on a monograph on the political economy of the San Joaquin Valley.

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

History 24, Section 4
How Wars Begin: Europe and the World 1789 to 1991 (1 unit, LG)
Lecturer David Wetzel
Thursday 1:00-2:00, 186 Barrows Hall, CCN: 39210

Six major wars have been fought in Europe since the French Revolution. A seventh was fought all over the world, though Europe contributed to its outbreak and provided one of the fields of combat. Many of these wars had long backgrounds or, as one historian has written, “profound causes”—conflicting creeds, public opinion, nationalism, militarism, mass psychology preaching the glories of war, and historians themselves, to name but a few. But there is also a more staid version of the origin of war: the precise moment when government officials set their names to the declaration of it. Sometimes the actual signing has little to do with the profound causes. This course will examine the immediate origins of the following wars: Wars of the French Revolution and Napoleonic Empire (1789-1815); Crimea and Italy (1853-56, 1859); Bismarck’s Wars (1863-64, 1866, 1870-71); The First World War (1914-18); The Second World War (1939-45); and The Cold War (1946-1991). Students will analyze writings by historians with conflicting interpretations of all of these wars and be asked to evaluate the merits of each. Vigorous participation in class discussion is a must.

David Wetzel is Lecturer in History. He specializes in international history of Europe in the nineteenth and twentieth centuries. His books include *The Crimean War: A Diplomatic History*; *A Duel of Giants: Bismarck, Napoleon III, and the Origins of the Franco-Prussian War*; and *A Duel of Nations: Germany, France, and the Diplomacy of the War of 1870-1871*.

Integrative Biology 24, Section 1
The Darwinian Revolution (1 unit, LG)
Professor Brent Mishler
Thursday 10:00-11:00, 4110 Valley Life Sciences Building, CCN: 42103

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: 42130

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
Burning Hot and Cold: How do Ectotherms Maintain Metabolism and Performance in Variable Temperatures? (1 unit, P/NP)
Professor Caroline Williams
Monday 2:00-3:00, 5192 Valley LSB, CCN: 42106

You and I regulate our body temperatures tightly at around 98 °F, which means our metabolic enzymes can be perfectly adapted to perform at that temperature. If our core body temperature deviates from that set point by just a few degrees we feel sick, and 10 °F of deviation will likely cause death. The core body temperature of ectotherms fluctuates with environmental temperatures, meaning they will regularly experience swings of 40 °F or more. Some ectotherms can survive temperatures as hot as 170 °F, and others as low as -70 °F! How do they maintain metabolism and performance in the face of this thermal variability? We will meet to discuss readings related to these topics. Student participation in discussions is required. **This seminar is part of the Connections@Cal initiative.**

Caroline Williams is an Assistant Professor at Berkeley who studies the evolution of metabolic physiology in ectotherms. She did her undergraduate and masters research in her home country, New Zealand, and her doctoral research in Canada. She then conducted postdoctoral research at the University of Florida and moved to Berkeley in July 2014. She is looking forward to meeting undergraduates with interests in metabolic physiology, and particularly encourages and supports undergraduate involvement in research.

Faculty web site: <http://cmwilliamslab.com>

Integrative Biology 24, Section 5

East Bay Parks: A Spring Almanac (1 unit, P/NP)

Professor David Ackerly

Friday 9:00-12:00, For the first meeting, meet at VLSB near the T-Rex., CCN: 42115

January 23, February 27, March 13, April 3, April 17, and May 1, 2015

In this seminar, we will make repeated visits to nearby parks in the hills above campus to track the coming of spring. We will discuss how personal observations and time spent in nature inform scientific research and approaches to conservation of open space and biodiversity. We will also learn to identify some of the common native plants in the area and observe their phenology as spring unfolds. **Students should be prepared to walk 1-2 miles on field trips. 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 a Freshman seminar on local plants and parks.

Faculty web site: <http://ackerlylab.org>

Integrative Biology 24, Section 6

Animal Navigation: Which way is home? (1 unit, LG)

Professor Roy Caldwell

Monday 2:00-3:00, 5192 Valley LSB, CCN: 42118

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, and 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 7
The Age of Dinosaurs: What Do We Know? (1 unit, LG)
Professor Kevin Padian
Wednesday 12:00- 1:00, 1101 Valley LSB, CCN: 42121

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. **Students 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. Students interested in the class should enroll and send the instructor a paragraph explaining their interest in the class by December 15 (to kpadian@Berkeley.edu). Applications (limited to 8) will be accepted on a rolling basis before then and the course closed on December 16.**

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 Valley LSB, CCN: 42124

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>

Linguistics 24, Section I
Language Myths (I unit, P/NP)
Professor Larry Hyman
Monday 11:00-12:00, 134 Dwinelle Hall, CCN: 52433

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 3
Materials and Weapons of War through History (I unit, P/NP)
Professor J. W. Morris Jr.
Friday 10:00-11:00, 348 Hearst Mining Building, CCN: 53003

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

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

Faculty web site: <http://www2.mse.berkeley.edu/ourfaculty/morrisj>

Mathematics 24, Section I
Geometry, Relativity, and the Fourth Dimension (I unit, P/NP)
Professor Alan Weinstein
Tuesday 2:00-3:30, 891 Evans Hall, CCN: 53678

Meets ten times beginning January 27, 2015. We will skip some weeks.

Our main focus will be a careful reading and discussion of the book "Geometry, Relativity, and the Fourth Dimension," by Rudolf von Bitter Rucker. The author may be better known to some students as Rudy Rucker, described in Wikipedia as "...an American philosopher mathematician, computer scientist, science fiction author, and one of the founders of the cyberpunk literary movement." Depending upon student

interests, we may look at other work of the author, and/or other material on relativity and higher (or lower, as in "Flatland," by the repetitively named Edwin Abbott Abbott) dimensions. **Some high school calculus and physics is desirable but not absolutely necessary.**

Alan Weinstein is a Professor Emeritus and Professor of the Graduate School in the Department of Mathematics. His main research area is differential geometry and its applications to physics (including relativity). In high school, he read vast amounts of science fiction, but he has not looked much at the genre since then.

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

**Mechanical Engineering 24, Section I
Art and Science on Wheels (1 unit, P/NP)
Professor Benson Tongue
Wednesday 12:00- 1:00, 3102 Etcheverry Hall, CCN: 55253**

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 2
Exploring the News (1 unit, P/NP)
Professor Neil Henry
Wednesday 10:00- 11:00, 267 Bancroft Library, 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, 210 Dwinelle Hall, 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
A Sampling of the Performing Arts at Berkeley (1 unit, P/NP)
Professor Jack Kirsch
Tuesday 5:00-6:30, 621 Stanley Hall, CCN: 57629

Food for Thought and performance attendance dates and arrangements will be discussed in class.

The purpose of this seminar, which is being offered for the sixth time, is to introduce incoming students to the wonderful variety of high quality performing arts opportunities, mainly on the Berkeley campus. We will view a classic film at the Pacific Film Archives, a student-produced play at either the Barestage or the Durham Studio theater, and one dance and one classical music performance at Zellerbach Hall. One or two related videos will be shown during class time. A limited number of off-campus opportunities may also be available. There is no cost to the students for the tickets. Each student will present a 25-minute talk related to the performances. **I would like a mix of science- and non-science-intended majors. 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.**

About the Instructor: 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 taught freshman seminars devoted completely to the performing arts starting in 2011.

I regularly attend about 100 performances per year in Bay Area Theaters and concert halls, and also subscribe to the SF Ballet and Opera. I contribute to the support of several local theater groups, and have co-produced two plays and a musical.

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

Molecular and Cell Biology 90E, Section I
Vision and Art (1 unit, P/NP)
Professor Tamira Elul
Friday 11:00-12:00, 134 Dwinelle Hall, CCN: 57641

Have you ever wondered how artists achieve certain effects in their paintings? For example, why do Monet's poppies seem to blow in the wind, why is the Mona Lisa's smile so enigmatic? In this seminar, students will learn about the biology of vision and seeing through art, or about how artists achieve certain

effects in their paintings by playing with our visual systems. The course will follow Margaret Livingstone's book "Vision and Art: The Biology of Seeing." Specific subjects taught will include color, luminance, perspective, and contrast enhancement. Students will present readings and lead discussions, as well as bring in paintings they would like to discuss.

Budding scientists and artists are invited, and anyone interested in Vision and Art.

Visiting Associate Professor Tamira Elul received her B.A. and Ph.D in Biophysics from the University of California, Berkeley. She is an Associate Professor at Touro University California and a Visiting Associate Professor in the Department of Molecular and Cellular Biology at UC Berkeley. She teaches Cell Biology, Histology, and Biophysical Neurobiology. Her research has focused on molecular, cellular and physical mechanisms underlying morphogenesis, the development of form and shape in embryonic tissues. In recent years, she has begun pursuing interdisciplinary art-science and visualization research projects inspired by her use of morphometrics to quantify cell behaviors driving morphogenesis in the developing nervous system.

**Molecular and Cell Biology 90E, Section 2
Matter, Mind, Consciousness (1 unit, P/NP)
Senior Lecturer David E. Presti
Tuesday 3:00-4:00, 80 Barrows Hall, CCN: 57644**

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. We will address this question from the perspectives of biology, philosophy, physics, and psychology--cognitive science, broadly defined.

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/>

**Natural Resources 24, Section I
Can We Talk? Student-Faculty Communication on a 21st Century Campus (1 unit, P/NP)
Professor Kate O'Neill
Tuesday 5:00-6:00, 211 Dwinelle Hall, CCN: 61402**

The interaction between professors and students outside of class is a vital component of learning, for both. This seminar examines how professors and students on the Berkeley campus interact and communicate, based on observations that such communication is getting harder and less fruitful. With new (and changing) technologies and social media platforms, more commitments, and busier schedules (on faculty and student sides), the traditional office hour/e-mail model is breaking down. Also, with so many options for communication, there's more confusion than clarity about how best to reach out, but also a lot of curiosity: how do people on a university campus use different modes of communication across different parts of their lives? How do we balance face-to-face with non-face-to-face time in our work/learning lives? What is Instagram, anyway? Class participants will learn about these issues with their peers and with faculty, interviewing select professors and engaging them in conversation about the means and ends of faculty-student communication. Taught by a member of the Resident Faculty Program, this course is about identifying some of the problems, and gathering and collating data that should dispel some myths on both sides as well as push the conversation forward. Students will also learn and practice

interview techniques. More broadly, we hope to continue that work beyond the semester, and build a cohort of students (and faculty), perhaps with URAP funding, to identify possible solutions, both social and technological, that might be deployed on this campus to enhance this critical part of the learning experience. **This seminar is part of the Connections@Cal initiative.**

Kate O'Neill joined the Department of Environmental Science, Policy and Management at UC Berkeley in 1999, specializing in the field of global environmental politics and governance. She writes on the ever-changing nature of global environmental challenges and our responses to them, on environmental activism and social movements, and on the global political economy of wastes. She teaches upper division and graduate courses in International Environmental Politics, and is a leading faculty advisor in the Conservation and Resource Studies Major in the College of Natural Resources. She holds a Ph.D. in Political Science from Columbia University, and is a co-editor of the journal *Global Environmental Politics*. She is currently the Resident Faculty member in Unit 2.

Natural Resources 24, Section 2

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

Professors J. Keith Gillless and Kate O'Neill

Thursday 5:00-6:00, 4301 Foothill 4 - Classroom A, CCN: 61403

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

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

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

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

Kate O'Neill joined the Department of Environmental Science, Policy and Management at UC Berkeley in 1999, specializing in the field of global environmental politics and governance. She writes on the ever-changing nature of global environmental challenges and our responses to them, on environmental activism and social movements, and on the global political economy of wastes. She teaches upper division and graduate courses in International Environmental Politics, and is a leading faculty advisor in the Conservation and Resource Studies Major in the College of Natural Resources. She holds a Ph.D. in Political Science from Columbia University, and is a co-editor of the journal *Global Environmental Politics*. She is currently the Resident Faculty member in Unit 2.

Near Eastern Studies 24, Section 1

Egyptian Archaeology at Cal (1 unit, LG)

Professor Carol Redmount

Tuesday 1:00-2:00, 271 Barrows Hall, CCN: 61515

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 presently closed, 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 and possibly visit a storage area. 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.

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
Putting the "Science" in Computational Science (1 unit, LG)
Professor Rachel Slaybaugh
Monday 3:00-4:00, 332 Giannini Hall, CCN: 64003

Is something science if it's not reproducible? How reproducible is the science involving data and computation? Work in these areas is frequently fraught with version, access, and reproducibility problems, resulting in erroneous results and wasting time and energy.

This course will equip you to begin a career in science or engineering in which you can

- * create, use, and share structured data;
- * automate repetitive tasks;
- * track and share work over the web; and
- * grow a program in a modular, testable, reusable way.

These skills will save you time and help you work more effectively in many future classes and in your career. **This class is for anyone interested in computing and computational science. You do not need to have computing experience. The idea of this class is to help you build the skills to be able to do computing effectively and efficiently.**

Dr. Slaybaugh has been a professor at UC Berkeley since January 2014. Throughout her career Dr. Slaybaugh has been engaged in software carpentry education and training. At Berkeley Professor Slaybaugh is building a research program based in computational methods and applied to existing and advanced nuclear reactors, nuclear non-proliferation and security, and shielding applications.

Political Economy 24, Section I
Political Economy in Contemporary Perspective (1 unit, P/NP)
Senior Lecturer Alan Karras
Tuesday 2:00-3:00, 201 Wheeler Hall, CCN: 71203

This seminar will require students to engage with current events, international and domestic, through the lens of political economy. Those who are enrolled will be required to read The New York Times and/or The Economist each week, identify issues of political economy that are being discussed, and present them

to their peers for discussion. Differing perspectives on the news, as well as the different ways in which political economy theorists would interact with the events, will be discussed. Students should expect vigorous engagement and critical thinking.

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 is currently the Lead Media Author for a forthcoming concise edition of a World History textbook, as well as working on his own book on corruption in the British East India Company. He 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 global issues in political economy.

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

Portuguese 24, Section I
Hello Brazil: Literature, Arts, Society (1 unit, P/NP)
Professor Candace Slater
Thursday 2:00-3:00, 5125 Dwinelle Hall, CCN: 86606

This seminar offers a description of Brazil—a vast and varied country—through some of its major literary and artistic expressions. It provides a sense of roots for some of the challenges that Brazil is currently facing as well as a notion of its shifting identities. The title "Hello Brazil" comes from a celebrated film about cultural and economic change. **This course would be most engaging for 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 Brazilian literature and culture, as well as courses on the Amazon, in the Department of Spanish and Portuguese. She has a secondary affiliation with the Energy and Resource Group. She is the author of seven books and many articles and has traveled widely throughout Latin America and the Iberian Peninsula.

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

Psychology 24, Section I
How Social and Personality Psychology Inform and Influence Everyday Social Life (TBA, P/NP)
Professor Serena Chen
Wednesday 10:00-11:00, 2308 Tolman Hall, CCN: 73717

In this seminar, we will read articles about theories and findings from social and personality psychology that can be readily applied to everyday social life. Slight emphasis will be placed on topics related to the self (e.g., self-esteem, self-compassion, authenticity). Class meetings will be heavily discussion-based, with the aim of creating a warm, engaging, and inclusive environment for a thoughtful discussion of the articles.

SERENA CHEN is Professor of Psychology and the Marian E. and Daniel E. Koshland, Jr. Distinguished Chair for Innovative Teaching and Research at the University of California, Berkeley. Her research focuses on the impact of close relationships on the self and identity, and on the intrapersonal and interpersonal

consequences of social power. She is a Fellow of the Society of Personality and Social Psychology, and is the recipient of the Early Career Award from the International Society for Self and Identity, and the Distinguished Teaching Award from the Social Sciences Division of the University of California, Berkeley. She was also identified as a Rising Star by the American Psychological Society.

Faculty web site: <https://serena-chen.squarespace.com/home/>

Public Policy 24, Section I

Big Think: Reading Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (I unit, LG)

Professor Eugene Bardach

Monday 3:30-5:00, 355 Goldman School, CCN: 77102

We read only this one book, but it's a thick one and full of interesting and important ideas. Pinker documents the global decline of violence (wars, homicides, etc.) from prehistory to the present. Many people will find this unlikely, but he is persuasive. Pinker then tries to explain this trajectory. He draws from all the social and behavioral sciences -- with some forays into literature and philosophy too. We will try to appreciate his intellectual sweep, and to criticize it when appropriate. Pinker's writing is straightforward and witty, a delight to be obliged to read. No papers or exams are required. But attendance is expected, along with reasonable efforts at participating in class discussion. **I welcome students who would like a broad overview of humans' attempts at social living as well as a multidisciplinary approach to understanding these.**

Eugene Bardach retired as a Professor of Public Policy in 2006. His research focused on problem-solving approaches to public policy, particularly on problems of political and bureaucratic implementation. His teaching mainly involved coaching students doing policy projects for real clients in government and in nonprofit organizations. He estimates he has coached over 500 such projects.

Rhetoric 24, Section I

Reading Photographs on Page One of the New York Times (I unit, P/NP)

Professor Michael Mascuch

Monday 12:00-1:00, 7415 Dwinelle, CCN: 77857

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 2

Arguing with Judge Judy (I unit, LG)

Professor Daniel F. Melia

Tuesday 1:00-2:00, 7415 Dwinelle Hall, CCN: 77860

TV "judge" shows have become extremely popular in the last three to five years. A fascinating aspect of these shows from a rhetorical point of view is the number of arguments made by the litigants that are utterly illogical, or perversions of standard logic, and yet are used over and over again. For example, when asked, "Did you hit the plaintiff?", respondents often say, "If I woulda hit him, he'd be dead!" This reply avoids answering "yes" or "no" by presenting a perverted form of the logical strategy called "a fortiori" argument ["from the stronger"] in Latin. The seminar will be concerned with identifying such apparently popular logical fallacies on "Judge Judy" and "The People's Court" and discussing why such strategies are so widespread. It is NOT a course about law or "legal reasoning." **Students who are interested in logic, public disputation, argumentation, and popular notions of fairness will probably be interested in this course. I am interested in students who are interested in the deployment of logic in everyday life. This is NOT a law course or even a pre-law course. This seminar is part of the Connections@Cal initiative.**

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 was "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 3
The Meanings of Murder Mysteries (1 unit, LG)
Professor Daniel Boyarin
Wednesday 1:00-2:00, 211 Dwinelle Hall, CCN: 77866

In this course, we will be reading several (mostly European) murder mysteries. These texts are detective novels (most, but not all policefolds) in which the genre is used to explore the tensions within the society depicted. Approximately one novel per week will be read (although for some longer ones two weeks might be devoted).

The course will require attending class and participating in discussion and a short paper.

Letter grade will be assigned on the basis of the class participation and the paper equally.

Daniel Boyarin is the Hermann P. and Sophia Taubman Professor of Talmudic Culture in the Department of Near Eastern Studies. He is also an affiliated member of the Department of Women's Studies, and a member of the core faculty in the minor program in Lesbian, Gay, Bisexual and Transgender Studies. He has published several books, the most recent of which are *Unheroic Conduct: The Rise of Heterosexuality and the Invention of the Jewish Man* and *A Radical Jew: Paul and the Politics of Identity*.

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

Spanish 24, Section I
Talking Funny: Language Variation in Spanish and English Literary Texts (1 unit, P/NP)
Professor Milton Azevedo
Thursday 10:00-11:00, 180 Barrows Hall, CCN: 86193

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 2576 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/>

**Vision Science 24, Section 1
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 a standard clinical instrument to view the eye will be demonstrated. Students will then employ this instrument to observe one another's eyes. Digital images of the iris will be captured and provided to each student. Examples of the types of 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? What structural and functional changes in the eye are found in various ocular diseases?

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>

**Vision Science 24, Section 2
Myths, Mysteries and Discoveries in Medicine (1 unit, P/NP)
Professor Patsy Harvey
Monday 3:00-5:00, 491 Minor Hall, CCN: 66405**

This seminar will meet for seven weeks on the following dates in 2015: January 26; February 2, 9, and 23; and Mar. 2, 9, and either 16 or 30.

Throughout the centuries, people sought to understand the reasons for diseases and death. Intriguing explanations, myths and superstitions were developed in an attempt to describe and prevent their medical maladies. In this course, we will discuss early and current explanations of health problems, with special considerations given to various cultures in the US and around the world. We will also discuss recent changes in health care and imagine future roles and discoveries of medicine. **Students enrolled in this seminar should be curious about people's beliefs and misconceptions about health and diseases, including our own myths about vision.**

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

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.

Anthropology 39A, Section I

Free Speech, Civil Rights, & Human Rights in Global Perspective (4 units, TBA)

Professor Nancy Scheper-Hughes

Thursday 2:00-5:00, 238 Kroeber Hall, CCN: 02560

This lower-division undergraduate seminar for twenty students is participating the celebration of the 50th anniversary of the Free Speech movement at Berkeley. Beyond the life and work of Mario Savio, the seminar will explore moments when free speech, censorship, civil rights and human rights are in contention. What does it mean to be a free human being in a democratic or non-democratic or transitional democratic society? What are the forces that create a false consensus? What is censorship? How and in what forms is it tolerated in a mature democracy? How and why and for what ends do individuals learn to police and censor their own thoughts and actions? The seminar is organized around several historical moments and themes: (1) The Birth of Civil Rights and Nonviolent Resistance: What was the US South like in the early 20th century? Resistance: Freedom Riders, Mississippi Summer, SNCC and the rise of Black Power, and the unfinished struggle for civil rights today; (2) The Free Speech Movement: its historical and philosophical origins, free speech, the meaning of consent, coercion, consciousness/ false consciousness, and hegemony; (3) The US in War and Peace: the Cold War, the Vietnam War, draft resistance and the founding of the Peace Corps. What motivated the idea of a 'Peace Corps' during a violent period of US aggression in Vietnam, Cambodia, and the imposition of police states in Central American and the Southern Cone?; (4) Global Resistance: South Africa and the global struggle against apartheid, the Truth and Reconciliation process; (5) The Birth of Human Rights; (6) Cultures of Madness and Violence; the carceral society; maximum Security Prisons & madness on the streets; the militarization of everyday life (7) The Middle East Crisis and Anthropology; and (7) The University in Crisis: From Free Speech to Self-Censorship and the Meaning of Civility.

Requirements: This is a working seminar in which students are required to be fully prepared and participatory in round table discussions. There will be a research project that will involve original research and participant observation of a local social movement and/or civil rights or human rights organization in the Bay Area and a twelve-page research paper in addition to a take-home exam. A few students may compete to join a small contingent of civil rights vets (including the instructor) to participate in the 50th anniversary of the Montgomery to Selma march on Bloody Sunday across the Edmund Pettus Bridge on Sunday March 5th-8th, 2015.

Admittance in to course requires the Instructor's permission. Those wishing to be part of the seminar must write a one-page statement to the instructor explaining why the student wants to join the seminar. The seminar is open to students from all disciplines. The required readings are varied and interdisciplinary.

Prof. Scheper-Hughes is an anthropologist, engaged scholar and an activist who began her adult life as a civil rights worker in Selma, Alabama and as a Peace Corps Volunteer in Brazil during the beginning of the Vietnam War. A member of the Committee of Returned Volunteers, she was active in many anti-war movements. She has conducted research and published many books and scholarly articles on violence in war and peace in the US, Brazil, Israel, Ireland, and South Africa. As a student at Queens College in NYC she traveled to Mexico with Mario Savio and 30 other Queens College Mexico Volunteers. She was also a classmate of Andy Goodman, who was killed in Mississippi in the summer of 1964. Scheper-Hughes was a civil rights worker affiliated with SNCC in Selma, Alabama in 1967-68. She was a Visiting Professor in the

Department of Social Anthropology and in the Medical School at the University of Cape Town during the democratic election period in 1993-1994. She lectures widely in the US, Europe, Latin America and the Middle East on violence, medicine, and human rights.

Art 39A, Section I

Making Sounds: New Acoustic Experiences through Design Innovation (2 units, P/NP)

Professor Greg Niemeyer

Monday and Wednesday 9:00- 12:00, CITRIS Invention Lab - 141 Sutardja Dai Hall, CCN: 04444

Class begins on February 4, 2014 and ends March 20, 2015.

The seminar engages students in building instruments that generate and amplify sound. Most of the time, these instruments can be called musical instruments, but our explorations will go beyond the classical. We will work closely with BAM/PFA visiting artist Tarek Atui to develop instruments played by amateurs, crowds, or the elements. The instruments will also seek to reach diverse audiences including people with hearing impairments. The syllabus begins with introductions to instrument-making tools from woodworking to 3D printing and programming including chuck and PD, and culminates in a public concert conducted by Tarek Atui at BAM/PFA using the instruments created in the course.

Printer sounds: <https://www.youtube.com/watch?v=81WLqN3q7M0>

3D Printed Flute: <https://www.youtube.com/watch?v=pCwbtiuaUgE> **This seminar would be especially useful for musicians, engineers, artists and persons with hearing disabilities. 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.**

Greg Niemeyer studied Classics and Photography in Switzerland and started working with new media when he moved to the Bay Area in 1992. He received his MFA from Stanford University in New Genres (that's what New Media was called at the time) in 1997. At the same time, he founded the Stanford University Digital Art Center (SUDAC), which he directed until 2001, when he was appointed as a professor for New Media at UC Berkeley's Department of Art Practice. At UC Berkeley, he is also the Director of the Berkeley Center for New Media, an interdisciplinary center for the critical analysis of new media experiences. In both roles, he creatively investigates the impact of new media on human experiences. At CITRIS, Greg co-founded the Data and Democracy Initiative with Ken Goldberg in 2011.

Greg's creative practice focuses on innovations of digital tools for mediations between individuals, communities and environments. His art projects include polartide (Venice Biennale, 2013) and the The Black Cloud (2008). Black Cloud was funded by the MacArthur Foundation to provide an alternate reality game and a social network for sensing air quality and taking actions to benefit indoor air quality. The project has evolved into a startup company, Aclima Inc., where Greg serves as the Senior Advisor for Social Engagement.

A branch of the Black Cloud project is Tomato Quintet with Chris Chafe (Machine Project, 2007, SJ01, 2010, NAMOC, 2011) which connects tomato ripening processes to music, music to people and people to the ripening process. Greg has also developed several mobile games focusing on foundational human cognitive skills in collaboration with the MIND Institute at UC Davis and with the Montreal Neurological Institute. Among these games, which were developed at the Social Apps Lab with James Holston and Faraz Farzin, are Tic Toc Tiles (2011), AirQuest (2012-2013), and Fragile Eggs (2012).

At UC Berkeley, Greg frequently teaches a course on "Internet Citizenship" in which students learn about innovation as an effective critique of the status quo. Greg innovates with that course extensively as he expands teaching it from the classroom to hybrid course formats and, since 2012, to an exclusive online course at cybercultures.berkeley.edu. An example of research in online citizenship is the Turing Test

Tournament (ttt.berkeley.edu) where students test an evolving freshman chatbot called froshbot. Both the course and the Turing Test website are contexts for more research into learning analytics and what provokes shifts in reasoning.

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

Computer Science 39S, Section I
Photographic Technique in the Free Speech Movement and Today (2 units, P/NP)
Professor Brian Barsky
Tuesday 12:00-2:00, 606 Soda Hall, CCN: 25743

The objectives of this class are both to view and study photographs taken during the Free Speech Movement and to learn photographic technique, which will include assignments involving taking photographs. Students are required to take photographs on a weekly basis and these photographs will be critiqued in class as time permits. A background and experience in photography is recommended. Students must have access to a camera for the course assignments. Recommended specifications for the camera include manual control of exposure and focus and the capability of changing the focal length (wide-angle and telephoto). The class includes visits to campus museums, galleries, and archives. To hone photographic skills, aesthetic, semantic, and technical aspects of photography will be discussed. As time permits, possible photography topics may include quality of light, exposure control, depth of field, composition and patterns, perspective, color science, the human visual system, and perception. The seminar emphasizes civic engagement and is not intended to be primarily a photography course. Political discussion will be an integral part of the seminar. Class participation is essential. In addition to the requirement of completing weekly photographic assignments, attendance at all classes and other course-related activities is required to receive a "pass" grade, except for prior arrangement with the instructor or documented emergencies. "Guidelines Concerning Scheduling Conflicts with Academic Requirements" by the Committee on Educational Policy state "If unforeseen conflicts arise during the course of the semester students must promptly notify the instructor and arrange to discuss the situation as soon as these conflicts (or the possibility of these conflicts) are known" and "faculty may decline to enroll students in a class who cannot be present at all scheduled activities." This seminar is not about the subject of computer science even though it is offered through the Computer Science Division. Students from all academic disciplines are welcome.

The first class session will not be held in the classroom, and all students enrolled or waitlisted for this seminar should be in direct contact with Professor Barsky in advance of the first class session for details about where to meet. Additional field trip information and Food for Thought dining details will be discussed in class. **A background and experience in photography is recommended. To complete the course assignments, students must have access to a camera. Recommended specifications for the camera include manual control of exposure and focus and the capability of changing the focal length (wide-angle and telephoto).**

This seminar is open to first-year students only. This seminar is part of the On the Same Page initiative. This seminar is a Berkeley Arts Seminar. Admission to the on-campus arts events included in this course will be provided at no cost to students. This seminar is part of the Food for Thought Seminar Series.

Brian Barsky received his Ph.D. from the University of Utah in Computer Science and joined the UC Berkeley faculty in 1981. His research interests include computational photography, contact lens design, computer methods for optometry and ophthalmology, image synthesis, computer aided geometric design and modeling, CAD/CAM/CIM, interactive and realistic three-dimensional computer graphics, visualization in scientific computing, computer aided cornea modeling and visualization, medical imaging, and virtual environments for surgical simulation.

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

Earth and Planetary Science 39A, Section I
Geological Influences in California Society Today (2 units, LG)
Professor Hans-Rudolf Wenk
Wednesday 5:00-6:00, 325 McCone Hall, CCN: 19012

There are three mandatory lectures Wednesdays 5:10-6pm in 325 McCone: January 21 (organizational meeting, attend also if you are on waiting list), January 28 and February 4. The dates of the four-day field trip (in April) will be announced at the EPS 39 webpage <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 one-hour lectures. 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. Details have not yet been decided: Either it will be Sierra Nevada foothills and Yosemite or Mojave Desert with desert lakes, and Death Valley (including Telescope Peak). On either trip expect some strenuous hiking. 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 provided at the logistical meetings. Food will be provided. There is a course material fee to cover transportation and food. Attendance at initial class meetings (two organizational, two lectures) and four-day field trip is mandatory. **Enrollment is limited to ~25 freshmen. If you have any questions regarding this seminar, please contact the instructor: 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/hans-rudolf-wenk>.

German 39H, Section I
The World of Yesterday: Vienna 1900 (3 units, LG)
Professor Elaine C. Tennant
Tuesday and Thursday 9:30-11:00, 282 Dwinelle Hall, CCN: 37256

For a few decades at the end of the nineteenth century, Vienna witnessed an extraordinary and unprecedented flowering of the arts, politics, philosophy, and industry. This cultural surge made Vienna the "city of dreams" and not a few nightmares. The capital of Austria-Hungary, Vienna had doubled in population since 1840; and while the mostly failed Revolution of 1848 had not succeeded in toppling the Habsburg monarchy, it had given the empire a constitution. Along the newly constructed Ringstrasse, a parade of monumental public buildings and grand residences separated the old central city from the suburbs that were mushrooming beyond it. Vienna in this period was a city of great variety, contrasts, and contradictions—ethnic, social, political, and economic. It was at once splendid and squalid, progressive and decadent. Fin-de-siècle Viennese society looked backward and forward at the same time. From the Hofburg and the Schönbrunn palace at the edge of town, Emperor Franz Josef maintained the aristocratic, Catholic tradition of the monarchy through social policies that were alternately enlightened and repressive. Downtown, artists, intellectuals, musicians, and businessmen from around the city and across the empire formed the coffeehouse set whose ideas shaped the Viennese Art Nouveau, the Zionist movement, the theory of psychoanalysis, and the Russian Revolution. This was the Vienna of Freud and Herzl, Hofmannsthal and Schnitzler, Bruckner and Mahler, Kokoschka and Schiele, Otto Wagner and Adolf Loos, as well as conservative Mayor Karl Lueger. Vienna in these years was preoccupied with beauty, feeling, and style, but also with class, racial, and ethnic prejudice. This brilliant chapter of the city's history, which saw the rise of the Secession, Young Vienna, and the Wiener Werkstätte, ended with the

Great War. This seminar is about the remarkable aesthetic production that burgeoned in the conflicted social and intellectual climate of Vienna around 1900. We will concentrate primarily on literary and journalistic writers of the period, but will also sample the work of some of the great painters, decorative artists, and musicians who contributed to the unique atmosphere of Vienna in the prewar period. The syllabus is likely to include texts by Sigmund Freud, Arthur Schnitzler, Hugo von Hofmannsthal, Theodor Herzl, Robert Musil, and Franz Kafka; paintings and decorative art objects by Joseph Hofmann and Gustav Klimt; and a film by Max Ophüls. Previous knowledge of German is not required. Students with a background in German, however, are welcome (indeed encouraged) to do some of the assigned readings in the original language. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science. **Previous knowledge of German is not required. Students with a background in German, however, are welcome (indeed encouraged) to do some of the assigned readings in the original language.** This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

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

Faculty web site: <http://german.berkeley.edu/people/professors/elaine-tennant/>

Jewish Studies 39J, Section I
Introduction to Hasidism (2 units, LG)
Shmaryahu Brownstein
Wednesday 2:00-4:00, 180 Barrows Hall, CCN: 47803

Hasidism and the Modern Age—What is Hasidism, and why does it interest us? Is it the last hurrah of traditional society, or does the advent of Hasidism reflect and impact the way people live today? This class will explore the history, thought, and social organization of the Hasidic movement, at its eighteenth century beginnings and today. We will focus on the question of whether and how contemporary Jewish life has been influenced by Hasidism.

Shmary Brownstein is a doctoral student in the Near Eastern Studies Dept. at UC Berkeley, focusing on rabbinics. He received his MA at the Graduate Theological Union, and wrote a thesis on the topic of continuity and innovation in Habad Hasidism. He also serves as a community rabbi at Chabad of Davis, CA, where he has taught Hasidic thought for over a decade. Shmary's work grapples with the nexus of Hasidism and modernity.

Jewish Studies 39K, Section I
Holocaust History, Memory, and Representation (2 units, LG)
Professor Rebecca Golbert
Monday 2:00-4:00, 111 Kroeber Hall, CCN: 47805

This course introduces students to the history and literature and art of the Holocaust. It explores Jewish life in Europe before, during, and after the Holocaust period and examines the physical and emotional impact of the Holocaust on Jewish community, memory, and identity and on Jewish relations with non-Jewish neighbors. The course will also explore the role and significance of Holocaust representation in art, film, and memorials. The course will draw on a range of disciplinary approaches in exploring this difficult subject matter—using historical and archival texts, memoir and autobiography, social scientific

approaches to memory and identity, artistic and photographic representations, documentary and feature film, graphic cartoons, and the novel. We will ask how each approach shapes our social and historical perspective and what each approach contributes to our understanding of Holocaust history and the Holocaust experience. Certain fundamental questions will emerge through our exploration: What is the meaning of human existence after the Holocaust? What is the possibility of reconciliation after the Holocaust? **Students should be serious about engaging with the topic of Holocaust history, memory, and representation through a variety of mediums and from a number of diverse disciplinary perspectives. We will use different kinds of texts, film, and art to explore the topic. Students should come to class prepared to engage in rich discussion in a lively seminar format.**

Rebecca Golbert is the Executive Director of the Institute for Jewish Law and Israel Studies. She received her doctorate in social anthropology from the University of Oxford under the supervision of Jonathan Webber, a leading anthropologist of modern Jewry. She also earned her B.A. in anthropology from Princeton University and a Master of Dispute Resolution degree from the Straus Institute for Dispute Resolution at Pepperdine University School of Law.

Golbert's scholarly work reflects overlapping interests in Jewish and Holocaust studies, anthropology and ethnography, and conflict resolution and mediation. Her doctoral and postdoctoral research focused on Ukrainian Jewish community and identity and Holocaust memory and memorialization within post-Soviet Ukraine. Golbert has held fellowships at the United States Holocaust Memorial Museum and the National Council for Eurasian and East European Research and is the recipient of an award from the International Mediation Leadership Summit of the American Bar Association.

In her previous role as Visiting Assistant Professor of Jewish Studies and Associate Director of the Glazer Institute for Jewish Studies at Pepperdine University, Golbert focused on student support and academic programming, developing courses for undergraduates; organizing art exhibitions, panels, and lecture series; and collaborating with other faculty and University institutions on campus-wide programming. At the Berkeley Institute, Golbert oversees the activities of the Institute's two programs as well as its broader work supporting students and faculty.

Faculty web site: <http://www.law.berkeley.edu/php-programs/faculty/facultyProfile.php?facID=17694>

Native American Studies 90, Section I
Native Americans and the American Novel (4 units, LG)
Lecturer Enrique Lima
Monday, Wednesday, and Friday 1:00-2:00, 174 Barrows Hall, CCN: 61233

The history and cultures of Native Americans continue to fascinate many people. But how does the way we imagine them relate to the challenges confronting Native American communities? In this seminar we will examine how Native Americans have been portrayed in four major American novels: *The Last of the Mohicans* by James Fenimore Cooper, *Death Comes for the Archbishop* by Willa Cather, *The Surrounded* by D'Arcy McNickle, and *Love Medicine* by Louise Erdrich. Along with learning how to read literature closely, we will also investigate the problems facing Native Americans and discuss the possible solutions posed by these novels. This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

Enrique Lima has taught at the University of Oregon and has been teaching at University of California, Berkeley for the last three years. His primary research is in the novelistic representation of Native peoples throughout the Americas. There is little that he enjoys more than teaching novels.

Nutritional Sciences and Toxicology 39D, Section I
Films of The Great American Road Trip (2 units, P/NP)

Professor George Chang
Wednesday 10:00- 12:00, 180 Barrows Hall, CCN: 64619

Do you like vacationing by car? Or driving to Berkeley from Southern California? Would you rather look out the window than stare at a cell phone? Then this may be the perfect seminar for you.

Our theme this semester will be "The American Road Trip," a uniquely American version of "The Great Journey" ("The Great Journey" is one of the basic themes of world literature; we see it in tales of Abraham, Moses, Odysseus, and The Monkey King.).

We will screen films ranging from "The Grapes of Wrath" to "Cars" and "Little Miss Sunshine." Students will then work in teams to lead discussions on the movies. Some students may focus on American history, geography, or folk customs. Others might choose to discuss film production, distribution, or even the careers of actors and filmmakers.

While our official theme is The Great American Road Trip, we will inevitably discuss topics such as time management, preparation for examinations, and getting the most from professors' office hours. In other words, our discussions will touch on your own Great Journey through the university.

After class, we will continue our conversations over lunch in the Unit Three Dining Commons. And when we are not chatting face-to-face, we will use a "secret" Facebook site for communications and video sharing. **This seminar is part of the Connections@Cal initiative. This seminar is part of the Food for Thought Seminar Series.**

Professor Chang received an AB in chemistry from Princeton and a PhD in biochemistry from UC Berkeley. In 2005 he became the first professor in Cal's Faculty in Residence Program. He is an avid fan of road trips, and he has visited 49 of our nation's 50 states by car, bus, and railroad. He is also the "owner" of the popular Facebook site "STUDY TIPS and OTHER GOOD THINGS."

Psychology 390, Section I
Inferring Personality and Attachment Status from Musical Performance: From Callas to Presley, Jagger and Boyle (2 units, P/NP)
Professors Mary Main and Erik Hesse
Wednesday 9:00- 11:00, 2129 Tolman Hall, CCN: 73719

Differing early attachment experiences with parents tend to effect the way that individuals feel about themselves and relate to other people in intimate and social contexts—or, less formally, to affect the structure of personality. This course will provide a brief overview of the psychological aspects of the sub-field of attachment within psychology. Following a brief review of the field of attachment, we will use film to study musical performances of a number of different, important singers, and attempt to make inferences about their current "attachment status." A wide variety of singers will be considered, e.g., Maria Callas (opera), Elvis Presley and Mick Jagger (rock and roll), and Susan Boyle (varied traditional). Other singers will be considered as well. Students from all majors are welcome, including of course psychology and music. **This course necessitates much discussion, so enrollment will be restricted to 15 students. Light homework will be assigned at times, e.g. a biographical review of a particular singer, or a set of songs.**

Mary Main and Erik Hesse are professors in the Department of Psychology who study early attachment and its long-term effects on development. They are well-known for the discovery (with their students) of "disorganized attachment" and its origins in parent-infant interaction, and for inventing a widely-used, hour-long interview regarding early relationships to parents and their effects as seen by the speaker (the Adult Attachment Interview/AAI). Over 10,000 Adult Attachment Interviews have been conducted in scientific research worldwide, and this interview predicts infant response to the parent when under stress.

Faculty web site: <http://psychology.berkeley.edu/faculty/profiles/mmain.html>

Faculty web site: <http://psychology.berkeley.edu/faculty/profiles/ehesse.html>

Public Health 39I, Section I
Helping Family and Friends Stay Healthy (2 units, P/NP)
Professor Zak Sabry
Monday 11:00-1:00, 440 University Hall, CCN: 75229

This course focuses on family and friends with health issues that could benefit from your attention. You will develop strategies to help them promote healthy life practices. You will also explore a possible role as a health caregiver to help them manage and ameliorate their health concerns. In the process you will acquire the skill of accessing relevant health information from reliable sources.

This course is for students interested in health improvement and disease prevention. It should be of special value to students who have family or friends with health issues that require help and support.

Professor Sabry is concerned with public health issues of food and nutrition. His research has focused on the assessment of nutritional status in populations, and the development of nutrition and health programs, with both national and international perspectives.

Professor Sabry received his B.Sc. in Food Science from Ayn-Shams University (Cairo), his M.Sc. in Food Science from University of Massachusetts (Amherst), and his Ph.D. in Biochemistry from Pennsylvania State University.

Slavic Languages and Literatures 39C, Section I
Images of Eastern Europe -- Between a Rock and a Hard Place: Ukraine, Poland, Russia (3 units, P/NP)
Professor David Frick
Tuesday and Thursday 3:30-5:00, 233 Dwinelle Hall, CCN: 79739

Ukraine. In one of today's many world crises, a European border thought established, in part after WWII, in part after the dissolution of the Soviet Union, is now being contested—that between the Republic of Ukraine and the Russian Federation. Ukraine—the word means “borderlands”—was for much of its history claimed as the large eastern or western outpost of first Polish and then Russian states. Its capital Kiev (Kyiv) figures as the heart and foundation of Ukrainian, Belarusian, and Russian national narratives.

The goal of the course will be to understand how history, and arguments from history, are shaping the current strife over the borders of contemporary Europe. To try to understand this, we will begin with recent reporting from both sides of the conflict, as well as views from outside. Then we will go back to the founding of Kievan Rus', its destruction in the 1240 Mongol invasion, its incorporation thereafter into the Grand Duchy of Lithuania and then into the Polish-Lithuanian Commonwealth, its eighteenth-century division between the Russian and Hapsburg Empires, its modern borders created as part of the post-WWII Soviet Union, and its independence as the Republic of Ukraine since 1991.

Readings will be mostly short texts, taken from contemporary journalism, Ukrainian, Russian, and Polish literature, and historiography.

Course requirements: attendance and active class participation (25% of the final grade), two in-class midterms (20% each), and a final essay project (35%). No prerequisites. All readings and discussions will be in English.

Professor Frick has spent many months since 1980 conducting research in Poland, Lithuania, Russia, and Germany. His main area of interest is in the cultural history of early modern Poland, Lithuania, Belarus, and Ukraine, and he has devoted special attention to conflicts between social authorities and personal identities.

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

Slavic Languages and Literatures 39F, Section I
Balkan Cultures (3 units, LG)
Professor Ronelle Alexander
Tuesday 2:00-5:00, 179 Dwinelle Hall, CCN: 79742

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”.

This class will approach the idea of “the Balkans” through three different aspects of Balkan culture: literature, folklore, and music. All interested students are welcome, both those with a Balkan background and those who know nothing about the area.

Partial Reading List: Andric, *The Bridge on the Drina*; Holton & Mihailovich, *Songs of the Serbian People*; Kadare, *The Three-Arched Bridge*; Rice, *Music in Bulgaria*; Starova, *My Father’s Books*; and Wachtel, *The Balkans in World History*. **Requirements: Attendance, participation in discussion, three short papers, final class project. All readings and discussions will be in English.** This seminar may be used to satisfy the Arts and Literature breadth requirement in Letters and Science.

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 39D, Section I
Social Justice and Advocacy (2 units, P/NP)
Professor Michael Austin
Tuesday 4:00-6:00, 309 Haviland Hall, CCN: 80703

This course 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 2014) 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) learning experiences 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) 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.**

Professor Austin is a member of the senior faculty who has a long-standing interest in social justice and advocacy (including participation 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 Public Service Center, engaged scholarship and service learning 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 book on social justice, 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>

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, 33 Dwinelle Hall, CCN: 83212

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 Southeast Asia (2 units, LG)
Dr. Maria Josephine Barrios-Leblanc, Lecturer Hanh Tran and Lecturer Karen Llagas
Friday 12:00-2:00, 202 Wheeler Hall, CCN: 83215

In Southeast Asia, 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 the important countries of Southeast Asia. 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>

Hanh Tran lectures in UC Berkeley's Beginner and Intermediate Vietnamese classes.

Karen lectures in UC Berkeley's Beginner and Intermediate Filipino classes; she teaches Tagalog privately and in group classes in the San Francisco Bay Area and online.

Theater, Dance, and Performance Studies 39, Section I
Making Art about War: Media, Performance, and Literature Representing Global Conflict from World War I to the Present (2 units, P/NP)
Professor Abigail De Kosnik
Thursday 10:00-12:00, 340 Moffitt (BCNM Commons), CCN: 88159

François Truffaut famously said that it is impossible to make an "anti-war film," as any film about war will be exciting and spectacular. But how is it possible to make *any* art about an event as destructive, terrifying, and traumatic as a war? How can war be both so compelling as a subject of art, and so repulsive and horrible as a seemingly inevitable fact of human life? In this seminar, we will examine films, television series, plays, novels, poems, visual artworks, and new media productions that strive to depict war as realistically or as truthfully (these are not always the same thing) as possible. We will ask how artists, in many media, from World War I (the first "modern" war) to the present, have struggled to distill, frame, and narrativize the details of combat, the complexity of war's causes and effects, and the very human life-or-death dramas that play out in all armed combat. Students will be encouraged to share artworks about war created by others and/or by themselves. This seminar is based on a project that Professor De Kosnik began in 2011, as a participant in Professor Judith Butler's "Why War?" Seminar Series (hosted by the Townsend Center for the Humanities). **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.**

Abigail De Kosnik is an Assistant Professor at UC Berkeley in the Berkeley Center for New Media and in the Department of Theater, Dance & Performance Studies. She teaches classes on the History & Theory of New Media, Performance & Television, Performance & Technology, and Sound Design. Her book on digital archives, *Rogue Memory*, is forthcoming from MIT Press in 2015. She has published articles on media fandom, popular digital culture, and performance studies in *Cinema Journal*, *The International Journal of Communication*, *Modern Drama*, *Transformative Works and Cultures* and elsewhere. She is the co-editor, with Sam Ford and C. Lee Harrington, of the edited essay collection *The Survival of Soap Opera: Transformations for a New Media Era* (University Press of Mississippi, 2011).

Faculty web site: <http://tdps.berkeley.edu/people/abigail-de-kosnik/>

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.

Economics 84, Section I

Buddhist Economics (2 units, P/NP)

Professor Clair Brown

Wednesday 3:00-5:00, 252I Channing Way, CCN: 22407

January 28; February 4, 11, 18 and 25; and March 4 and 11, 2015

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>

Electrical Engineering 84, Section I

Hands-on Ham Radio (2 units, P/NP)

Professor Michael Lustig

Monday 10:00-12:00, 53I Cory Hall, CCN: 24652

Amateur Radio (Ham Radio) is a popular hobby and service in which licensed Amateur Radio operators (hams) operate communications equipment. Although Amateur Radio operators get involved for many reasons, they all have in common a basic knowledge of radio technology and operating principles, and pass an examination for the FCC license to operate on radio frequencies known as the "Amateur Bands." These bands are radio frequencies reserved by the Federal Communications Commission (FCC) for use by ham radio operators.

The role of amateur radio has obviously changed with the presence of the internet. Remarkably, amateur radio today offers unique opportunities and capabilities due to its independence on commercial infrastructure. For example, it is a legal ground for hands-on experimenting with wireless communication technology and it allows communication in emergencies and from remote areas.

What can you do as a ham?

- *Talk to people (near and far)
- *Build stuff (amps, sdr's, antennas, receivers)
- *Emergency communications (emcom)
- *First person view (FPV) vehicles (drones) at much higher power
- *Hit satellites, moon, meteors, airplanes (with radio waves! ... not something else)
- *Digital communication with Automatic Positioning and Reporting System, packet radio
- *Use Repeaters covering Bay-Area, California and the United States' mesh networks

In the seminar we will learn about ham radio and experience it. The idea is that students will be able to take the ham licensing exam and become licensed radio operators at the end.

This seminar is part of the Connections@Cal initiative.

Michael (Miki) Lustig is an Assistant Professor in EECS. He joined the faculty of the EECS Department at UC Berkeley in Spring 2010. He received his B.Sc. in Electrical Engineering from the Technion, Israel Institute of Technology in 2002. He received his Msc and Ph.D. in Electrical Engineering from Stanford University in 2004 and 2008, respectively. His research focuses on medical imaging, particularly Magnetic Resonance Imaging (MRI), and very specifically, the application of compressed sensing to rapid and high-resolution MRI, MRI pulse sequence design, medical image reconstruction, inverse problems in medical imaging and sparse signal representation.

Faculty web site: <http://www.mlustig.com>

English 84, Section I

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 Hall, CCN: 2794 I

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/> | |

Japanese 84, Section I

Local Intimacies, Global Screens (2 units, LG)

Professor Dan O'Neill

Thursday 3:00-6:00, 341 C.V. Starr East Asian Library, CCN: 21044

The course will meet for 10 sessions.

This course introduces students to debates on gender and sexuality from the perspectives of transnational queer cinema. We will examine recent theoretical and cultural works on queer forms of belonging and consider the challenges they pose to our understanding of sex, gender, sexuality, and the body. We will explore how queer cinema, as a space of vital images where local intimacies are mobilized globally, opens up new possibilities for us to imagine gender and sexual freedom.

Associate Professor Dan O'Neill teaches courses in modern Japanese literature and criticism, global modernisms, critical theory, East Asian cinema, visual culture and new media.

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

Natural Resources 84, Section I
Global Environment Theme House Sophomore Seminar (I unit, P/NP)
Professors J. Keith Gillless and Kate O'Neill
Thursday 5:00-6:00, 430I Foothill 4 - Classroom A, CCN: 61406

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

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

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

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

Kate O'Neill joined the Department of Environmental Science, Policy and Management at UC Berkeley in 1999, specializing in the field of global environmental politics and governance. She writes on the ever-changing nature of global environmental challenges and our responses to them, on environmental activism and social movements, and on the global political economy of wastes. She teaches upper division and graduate courses in International Environmental Politics, and is a leading faculty advisor in the Conservation and Resource Studies Major in the College of Natural Resources. She holds a Ph.D. in Political Science from Columbia University, and is a co-editor of the journal *Global Environmental Politics*. She is currently the Resident Faculty member in Unit 2.

Public Health 84, Section I
The Environment in Post-Apocalyptic Fiction (I unit, LG)
Professor Kirk Smith
Thursday 5:00-7:00, 238 University Hall, CCN: 76949

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

Environmental disasters, human caused and otherwise, have been featured in many novels and other media since the dawn of the industrial era. In this seminar, we will focus on post-apocalyptic literature with three core readings and one elective. First, we will read the non-fictional assessment *The World Without Us* (Alan Weisman, 2007), which lays a scientific foundation for how the natural world would change without pressure from humanity. Then we will read the short novel *Scarlet Plague*, by Jack London (1912), which takes place in the Bay Area and describes the world after plague kills most of the human race in 2013, and finally *Earth Abides* (1949) by George Stewart, former UCB Professor, which is a novel about Berkeley in a post-apocalyptic world. Each student will also read a book of his or her choosing from a list provided of historical and contemporary novels dealing with post-apocalyptic worlds. Each student will be expected to give an oral report on his or her book and participate in discussions on the core books. **Enrollment is limited to fifteen sophomores.**

Dr. Kirk R. Smith is Professor of Global Environmental Health in the School of Public Health. His research focuses on climate and health impacts of air pollution in developing countries and he was previously founder and head of the Energy Program of the East-West Center in Honolulu. He currently is conducting field research in Mexico, Guatemala, Mongolia, China, Nepal, India, and Indonesia. He serves on a number of national and international scientific advisory committees including being Convening Lead Author for four major international assessments underway at present: the Global Energy Assessment, WHO Indoor Air Quality Guidelines, the Global Burden of Disease Comparative Risk Assessment, and the Intergovernmental Panel on Climate Change (IPCC). He holds visiting professorships in India and China; bachelors, masters, and doctoral degrees from UC Berkeley; and is a member of the US National Academy of Sciences. In 2007, he shared the Nobel Peace Prize with many other scientists for his role in the IPCC assessments and, in 2009, he received the Heinz Award in Environment and, in 2012, was awarded the Tyler Prize for Environmental Achievement.

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

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: 66409

This seminar will meet for approximately 2 hours every other week starting on 8/28/14.

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