

Application must be submitted via the web at soco.stanford.edu

Application Deadline
5 p.m., April 18, 2007

Intellectual immersion

Stacey Bent

Russell Berman

David Brady

Patricia Burchat

Page Chamberlain

Karen Cook

William Durham

John Eaton

Michele Elam

Tammy Frisby

Deborah Gordon

Heather Hadlock

David Katzenstein

David Kennedy

Gil Masters

Scotty McLennan

Linda Paulson

Rush Rehm

John Rickford

John Shoven

Peter Stansky

Stuart Thompson

2007 Sophomore College Course Catalogue



An opportunity to study intensively
in small groups with Stanford faculty

September 3-21



For more information,
contact
Freshman and Sophomore
Programs
Fourth Floor, Sweet Hall
590 Escondido Mall
Stanford University
Stanford, CA 94305-3091

Phone:
(650) 723-4338

Email:
fsp@vpue.stanford.edu

Fax:
(650) 736-2797

Web:
soco.stanford.edu

Contents

Message from the Director of Freshman and Sophomore Programs	1
Overview of Sophomore College	2–3
Course Listings	4–13
Conservation and Development Dilemmas in the Amazon	4
Natural History, Marine Biology, and Research	4
The Ecology of Invasions	5
How Computer Chips Are Made	5
Green Buildings	6
Ghost Stories: Why the Dead Return and What They Want from Us	6
Learning Theater: From Audience to Critic at the Oregon Shakespeare Festival	7
A Random Walk Down Wall Street	7
Mixed Race in the New Millennium	8
The Meaning of Life: Moral and Spiritual Inquiry through Literature	8
Environmental and Geological Field Studies in the Rocky Mountains	9
The Invasion of Britain in the Second World War	9
The Federal Government and the West	10
Ebonics, Creoles, and Standard English in Education	11
Hands-on Jet Engines	11
AIDS in Africa	12
Men, Women, and Opera	12
A 20th-Century View of the Universe: The Elementary Particles, Dark Matter, and Dark Energy	13
Bargaining, Power, and Social Influence	13
Application Process	14–15
Indices	16

Contribute the best of you

To the Class of 2010

Since 1995, Sophomore College has offered sophomores the opportunity to study intensively in small groups with Stanford faculty for several weeks before the beginning of fall quarter. More than 80 faculty and over 3,000 students have participated in the program. Many Sophomore College alumni continue to sustain the rich relationships formed with faculty and with peers in their courses. They find that the critical habits of mind taught in the seminars, the exposure to a field of interest and to Stanford's resources, and the intellectual friendships they make in the program support them in becoming more engaged and entrepreneurial learners through the rest of their careers at Stanford and beyond.

Sophomore College is a chance to immerse yourself in your subject and collaborate with your peers, Sophomore College Assistants, and faculty in constructing a community of scholars. We also encourage you to explore the full range of Stanford's academic resources in workshops and individually. At its best, Sophomore College is charac-

terized by an atmosphere of intense academic exploration. Faculty and students alike attest to the strong relationships formed in these classes, the high level of dedication that faculty expect and that students bring to the work, and the impressive academic achievements that arise from this partnership.

If you seek this kind of intellectual immersion, I encourage you to consider which of the courses described in this catalogue you would like to explore and to which you could contribute the best of your enthusiasm and experience.

Sincerely,

Sharon Palmer



Sharon Palmer
Assistant Vice Provost for
Undergraduate Education and
Director of Freshman and
Sophomore Programs

your enthusiasm and experience

Overview of Sophomore College

Academics

Each Sophomore College course enrolls 12 to 14 students, who receive two units of credit for the academic work done in the course. In addition to faculty instructors, two upperclass Sophomore College Assistants in each class work with the faculty and serve as peer advisors to the participants. (In some cases, Sophomore College Assistants may be graduate students.) Students and staff live together in a Stanford residence and participate in morning classes, required field trips, and other course activities. Students will also attend workshops given by a number of University offices (e.g., Undergraduate Advising and Research). Faculty may schedule special events such as field trips or film screenings, which students are required to attend, in the evenings and on weekends. Some courses will focus on developing speaking, writing, and other presentation skills. All courses will engage students in the materials and methods of inquiry of a particular academic field.

Eligibility

Eligible students will have been enrolled for no more than three academic quarters; be sophomores in the fall of 2007; be in good academic standing; and have completed at least 36 units of academic work by the end of spring quarter. Students must also have an on-campus housing assignment for 2007–2008 and intend to enroll in the autumn quarter 2007–2008. Admitted students who are found to have academic standing problems after the completion of spring quarter may have their admission revoked.

Costs

The Sophomore College program fee covers tuition, room, board, books, and class-required travel arranged by the program. The total fee is \$1300, but through the generosity of Stanford friends all students will automatically receive an \$800 scholarship. Each student will pay the remaining \$500, which will be included in the autumn quarter University bill. Students are also responsible for travel to campus (or off-campus site for some off-campus seminars), phone, network activation fees, class project materials, and other personal expenses.

Financial aid is available to help defray the \$500 remaining program fee; students should indicate interest in aid on the application form. (These grants cannot be applied toward other personal expenses.) The Financial Aid Office will determine eligibility. Financial need will have no bearing on course applications. (Please note: We may not be able to consider financial aid requests received after May 5, 2007.)

For students on financial aid, the Financial Aid Office has also agreed to replace the portion of expected earnings lost due to participation in Sophomore College with either grants or loans depending on the family financial situation. If you are accepted to a class, contact the Financial Aid Office at financialaid@stanford.edu when you return to campus in the fall. They will work with you to determine how loans or grants may be used to offset your lost earnings.

Build intellectual

Applications

Student applications for each course are reviewed and selected by the faculty instructors. Faculty look for a variety of backgrounds; therefore, students should provide thoughtful, thorough answers to the questions on the application. Applications must be submitted via the web at soco.stanford.edu by 5:00 p.m. on Wednesday, April 18, 2007. (A sample application form is included in this brochure.) You may apply to up to three classes, but a separate application is required for each. Students may view their application status on the web on approximately May 9, 2007. Those selected to participate will be asked to complete a registration commitment form by 5:00 p.m. on May 16, 2007.

Calendar

Participating students must arrive back on campus between noon and 5:00 p.m. on Monday, September 3, 2007. Arrival dates and locations may vary as noted in course descriptions for off-campus seminars. An opening convocation will be held that evening for on-campus courses, and classes will start the next day. Sophomore College will remain in session until Tuesday, September 18. Students are required to attend additional class events scheduled after this date, such as class presentations or field trips, through Friday, September 21.

Student Commitment

Students are expected to be fully committed to Sophomore College. This means attending all class sessions, class field trips, and mandatory college-wide activities. Sophomore College participants cannot work a full- or part-time job or travel outside of required class activities during the program. Because of conflicts with required training schedules, RA, HPAC, RCC, and OV roles all preclude participation in Sophomore College, as do some other dorm staff positions. Participants may serve as Peer Mentors or CTL Subject Tutors in most cases; although a few classes have schedules that do not permit this. These staff positions, as well as FA, TA, ETA, and Row House staff positions, should be disclosed as possible conflicts on your commitment form. All absences from Sophomore College, including weekends, must be approved by the faculty instructor. Students cannot be absent for more than two days between September 3 and 21 and may not arrive late to the program if it will cause them to miss a class meeting. As during the regular academic year, student conduct is guided by the Fundamental Standard and Honor Code. Admission to the program may be revoked at any point if a student is found to be ineligible or in violation of the Fundamental Standard or Honor Code. Students who commit to attend and then withdraw will be charged a \$500 drop fee.

community

Conservation and Development Dilemmas in the Amazon

Professor William Durham

Department of Anthropological Sciences

This course explores the human dimensions of current conservation efforts in the Amazon Basin of South America with the dual goals of introducing the human ecology of Amazonia and assessing the prospects for achieving biodiversity conservation and local community development. We will draw on case studies to investigate such topics as the causes and consequences of deforestation, the social impact of parks and protected areas, and the potential for “Integrated Conservation and Development Projects” (ICDPs) such as extractive reserves, natural forest management, biodiversity prospecting, and community-based ecotourism. The course views Amazonia as a microcosm of the challenges facing conservation and development efforts today in the Third World.

This course includes an intensive 11-day expedition to the Peruvian Amazon to observe the conservation and development dilemmas discussed in class. We will visit ecologies in the rainforest and will walk miles to learn about local flora, fauna, and conservation efforts. We will also visit Machu Picchu in the upper reaches of the rainforest during which undergraduates will be joined by a group of Stanford alumni and friends.

Student contributions and presentations are emphasized throughout the course; thus students are expected to come well-prepared to each session, to lead discussions, and to do literature research. The final assignment is a 6–8-page paper on a case study of your own choosing—or an equivalent piece of a longer, collaborative paper—that offers a critical assessment of one particular conservation and/or development project. Students will present the main findings of their papers in a joint seminar of undergraduates and alumni as we travel in the Amazon.

Note: Students will arrive on campus and will be housed at Stanford until we leave for the Amazon. Travel to and from Peru will be provided and paid by Sophomore College (except incidentals) and is made possible by the support of the Stanford Alumni Association Travel/Study Program and generous donors.



William Durham received his Ph.D. in ecology and evolutionary biology from the University of Michigan before joining the Stanford faculty in Human Biology and Anthropological Sciences. His current research focuses on conservation and development issues in Latin America and on the evolutionary interactions of genes and culture in human populations. Winner of the MacArthur Prize and other awards for research and teaching, Professor Durham’s books include *Scarcity and Survival in Central America*, *The Social Causes of Environmental Destruction in Latin America* (co-editor), and *Ecotourism and Conservation in the Americas* (co-editor, forthcoming). He is editor of the *Annual Review of Anthropology* and Director of the Center on Ecotourism and Sustainable Development at Stanford. He has led five previous Stanford expeditions to the Peruvian Amazon.

Natural History, Marine Biology, and Research

Professor Stuart Thompson

Department of Biological Sciences

Monterey Bay is home to the nation’s largest marine sanctuary and also home to Stanford’s Hopkins Marine Station. This course, which is based at Hopkins and in Big Sur, provides an introduction to the spectacular biology of Monterey Bay and the coastal mountains and redwood forests. We also address, to equal depth, the rich literary, artistic, and political history of the region. The course focuses on issues of conservation, sanctuary, and stewardship of the oceans and coastal lands.

We will meet with conservationists, artists, environmentalists, politicians, film-makers, authors, and lawyers, as well as scientists and educators, to learn what is being done to appreciate, protect, and study the coastline and near-shore waters at local and national levels. We will take a look at the discipline of marine biology to discover the range of topics and methods of research it embraces and to help define some of the larger issues in biology that loom in our future.

The course emphasizes interactions and discussions between individuals, groups, and our guests; it is a total immersion experience. We will be together all of the time, either at our base at the Belden House in Pacific Grove or hiking and camping in the field. Students are expected to have read the several books provided as introductory material before the course begins. Each is also expected to become our local expert in an area such as plant and animal identification, poetry, photography, history, ethnography, etc. The course also requires an individual research project of your choice on a topic related to the general theme. Final reports will be presented at the last meeting of the group and may involve any medium including written, art, and performance media.

Note: this course will be held at the Hopkins Marine Station in the Monterey region, and housing will be provided nearby. Transportation from campus to the housing site will be provided once students arrive on campus on September 3.



Stuart Thompson graduated from UC-Santa Barbara and received his doctoral degree from the Joint Program for Zoology and Physiology and Biophysics at the University of Washington before coming to Stanford as a postdoctoral fellow. Professor Thompson then joined the faculty of the Department of Biological Sciences and is presently in residence at the Hopkins Marine Station in Pacific Grove. His research concerns the flow of information at synapses between neurons, intracellular signal transduction and Ca²⁺ homeostasis in neurons, and the physiology of neural stem cells.

The Ecology of Invasions

Professor Deborah Gordon

Department of Biological Sciences

Invasive animal and plant species are transforming ecosystems around the world. This course is an introduction to invasion ecology. Do successful invaders tend to have characteristics in common? How can a species that seems innocuous in its native habitat have such drastic effects when it invades another part of the world? What does it take to predict how fast an invasive species will spread? We will do some reading and discuss the ecology of invasions in general, but most of our work will be a group research project that focuses on a local invader, the Argentine ant. These ants have spread from Argentina into Mediterranean climates worldwide. They live in associations of nests that are connected by trails. Our project will investigate how chemical cues may affect the way in which ants establish boundaries between associations of nests. We will also work on an ongoing research project at the Jasper Ridge Biological Preserve to investigate why the Argentine ant, once it is established, eliminates most of the native ant species, and why a few native species are apparently able to resist.

Each student will participate in two group projects, one on campus and one at Jasper Ridge Biological Preserve. Projects will include mapping, observation of foraging behavior, and baiting experiments. At the end of the course, students will report to the class about project results.



Deborah M. Gordon is a professor in the Department of Biological Sciences. She was a French major at Oberlin College and received her M.S. from Stanford and her Ph.D. from Duke. She did postdoctoral work at Harvard and Oxford. Her research in animal behavior and ecology is on the organization of work within ant colonies

and on interactions between neighboring ant colonies: how colonies are organized, how colonies in a population interact, the evolution of behavior, and the ecology of invasive species. Professor Gordon does fieldwork every summer in southeastern Arizona, where she has been monitoring a population of about 250 colonies of harvester ants for 20 years. She has two wonderful children and thus has no hobbies.

How Computer Chips Are Made

Professor Stacey Bent

Department of Chemical Engineering

Prerequisite: High-school chemistry and physics.

Computer chips, i.e. integrated circuits, are a marvel of modern science and technology. Integrated circuits contain almost a billion devices in a single chip, requiring manipulations of the constituent materials on a scale as small as .00000001 meters. A chip may take hundreds of processing steps to make.

This course will explore the basic steps that comprise a fabrication sequence for making a computer chip. We will start with a basic description of the properties of solids. A discussion of semiconductors will lead to an understanding of how a transistor, the basic building block of an integrated circuit, works. We will then explore the key steps involved in making a transistor. Such steps include the generation of ultrapure silicon wafers, the infiltration of the wafers with controlled amounts of impurities (doping), the addition of other materials onto the silicon (deposition) and the removal of materials (etching). We will also discuss the process by which a pattern is transferred to the silicon (lithography) in order to generate the different regions in a transistor. The class will look at future trends, in which new materials and processing techniques are being developed in order to meet continuing demand for smaller and smaller transistors.

The class will require a few homework sets, plus one final report to be written about a new development in semiconductor processing. There will be field trips to see some of the industry “tools” used to process chips and a “clean room” in which semiconductor processing takes place.



Stacey Bent has been a professor of chemical engineering since 1998. She is also professor by courtesy in the electrical engineering, materials science and engineering, and chemistry departments. Professor Bent’s research focuses on chemical processing of electronic materials, seeking to bridge the gap between the surface chemistry of

semiconductors and the actual processing of these materials in real applications. Professor Bent received her B.S. from UC-Berkeley and her Ph.D. from Stanford. A recipient of numerous awards, including the National Science Foundation CAREER Award (1995) and the Tau Beta Pi Award in the School of Engineering for Excellence in Undergraduate Teaching (2006), she recently spent a sabbatical at Chalmers University in Sweden. One of her current projects is a collaborative effort to develop prosthetic chips for patients with macular degeneration—the leading cause of blindness.

Green Buildings

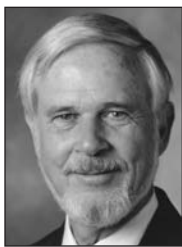
Professor Gil Masters

Department of Civil and Environmental Engineering

What makes a building “green” and why is the design of such buildings an important emerging field? Greenness has to do with efficient use of energy, water, and construction materials to provide healthful and enjoyable spaces in which to live and work. This course focuses on the energy-efficiency side of green buildings with special attention to architectural features that enable a building to provide a significant fraction of its own heating, cooling, and electrical needs.

The building sector in the United States accounts for almost half of our total energy consumption, including more than two thirds of our electric energy and three fourths of the peak power demand. We spend \$160 billion annually for the energy used in homes and another \$120 billion for commercial buildings. In the process of providing energy for our buildings we emit a significant fraction of total U.S. atmospheric pollutants, including almost half of U.S. climate-changing carbon emissions. Improvements in building energy efficiency offer major opportunities for saving both money and the environment.

In this course we will look at passive solar designs for small buildings, including use of building-integrated photovoltaics for electricity, and learn about architectural features that contribute to the energy efficiency of large buildings. We will take a number of field trips to local green buildings and will study buildings on campus to illustrate both good and not-so-good green design. A laboratory component will provide students with the opportunity to build and test scale models of buildings. Energy performance of buildings will be modeled using an industry-standard computer software package.



Gil Masters is an emeritus professor of civil and environmental engineering whose major field of study is energy and environment, with a special interest in renewable and efficient energy systems to help slow global warming. He continues to teach courses on energy-efficient buildings, renewable energy, and energy conservation and, related to these

subjects, has written a textbook, *Renewable and Efficient Electric Power Systems*. He has received a number of teaching awards at Stanford, including the Gores Award and the School of Engineering Tau Beta Pi award for excellence in teaching.

Ghost Stories: Why the Dead Return and What They Want from Us

Professor Russell Berman

Department of Comparative Literature

Ghost stories haunt our imagination. When the dead return they may scare us or warn us, they may pursue us with violence or burden us with sorrow. They shock us with the “boo” of surprise, just as they frustrate us by their elusiveness. Blood-chilling stories terrify us, but they also provide entertainment. The ghost story is one of the most enduring genres, from classical literature to popular film. Yet behind the door of the story lurk both anxiety and wisdom: anxiety about our own mortality and wisdom about the cultural place of the past, between memory and regret, mourning and forgetting. The undead point to what we have not accomplished, just as they direct us—since the ghost of Hamlet’s father—toward deeds. In this seminar, we will explore some of these ghostly ambitions. During the summer, in preparation for the seminar, students will read selected stories and novels and post comments to the course website. When we convene in the autumn, we will examine classic incarnations of ghost literature by authors such as Hoffmann, Poe, James, Joyce, and Ibsen, before turning to more recent sightings in fiction by Paul Auster, Marie Darrieussecq, and Toni Morrison. We will also spend some dark and stormy nights with ghost films and even follow the trail to some hauntings at Stanford and in the Bay Area.



Russell A. Berman is the Walter A. Haas Professor in the Humanities and chair of the Department of Comparative Literature. He received his B.A. from Harvard in 1972 and his Ph.D. from Washington University in 1979, when he also joined the faculty at Stanford. Awarded fellowships from the National Endowment for the Humanities

and the prestigious Alexander von Humboldt Foundation, he was also honored by the German government, which presented to him the Federal Officer’s Service Cross.

Professor Berman lived for many years in Germany and Austria and has published extensively on their literature and culture. His interests range widely, including the modern novel, the history of journalism and the media, poetry, and film, as well as comparisons between German, French, and American literature. His published work includes treatments of many periods in German cultural history, including the Nazi era and German unification. His book, *The Rise of the Modern German Novel*, won the German Studies Association Award, as did his *Enlightenment or Empire: Colonial Discourse and German Culture*.

Learning Theater: From Audience to Critic at the Oregon Shakespeare Festival

Professor Rush Rehm and Dr. Linda Paulson

Department of Drama

Who doesn't love going to a play: sitting in the darkened theater, an anonymous member of the audience waiting to be entertained, charmed, and challenged? But how many of us know enough about the details of the plays, their interpretation, their production, and acting itself, to allow us to appreciate fully the theatrical experience? In this seminar, we will spend 12 days in Ashland, Oregon, at the Oregon Shakespeare Festival (OSF), where we will attend eight plays: Shakespeare's *The Tempest*, *Romeo and Juliet*, *As You Like It* and *The Taming of the Shrew*, Molière's *Tartuffe*, August Wilson's *Gem of the Ocean*, Tom Stoppard's *On the Razzle*, and a new play, *Rabbit Hole*, based on a William Saroyan story. We will also spend time backstage, meeting with actors and artistic and administrative directors of OSF.

Students will read the plays before the seminar begins. In Ashland, they will produce staged readings and design a final paper based on one of the productions. These reviews will be delivered to the group and turned in on Friday, September 21.

This seminar will convene in Ashland on Monday, September 3, and will adjourn to Stanford on Sunday, September 16. Students must arrive in Ashland by 4:00 p.m. on September 3. Room and board in Ashland and transportation to Stanford will be provided and paid for by the program.



Rush Rehm, professor of drama and classics, works extensively in the area of Greek tragedy. His books include *Aeschylus' Oresteia: A Theatre Version*; *Greek Tragic Theatre*; *Marriage to Death: The Conflation of Wedding and Funeral Rituals in Greek Tragedy*; *The Play of Space: Spatial Transformation in Greek Tragedy*; and *Radical*

Theatre: Greek Tragedy and the Modern World. He teaches courses on dramatic literature of various periods and teaches acting and directing to drama students.



Linda Paulson has her Ph.D. in comparative literature from UCLA. She has taught at Stanford since 1985. Her research focuses on the Victorian social novel and on the development of a British woman's novel from Jane Austen to Doris Lessing. In 1989, she received Stanford's Dinkelspiel Award for Distinctive Contributions to Under-

graduate Education. She has been taking Stanford undergraduates to the Oregon Shakespeare Festival since 1995.

A Random Walk Down Wall Street

Professor John Shoven

Department of Economics

Prerequisite: Economics 1.

The title of this course is the title of one of the books that will be required summer reading. The course will introduce modern finance theory and will cover a wide range of financial instruments: stocks, bonds, options, mutual funds, exchange-traded funds, etc. Historical returns on different asset classes will be examined. The efficient market hypothesis and the case for and against index funds will be discussed. Topics may include whether asset managers are worth what they cost, the role of the SEC in regulating financial markets, and the use of tax-advantaged retirement savings accounts such as 401(k) accounts and IRAs. We will try to reconcile the long-run return on stocks, bonds, and money market instruments with the capital asset pricing model. We will talk with venture capitalists, mutual fund managers, and those who manage large institutional endowments. Students will be expected to write a short paper and make an oral presentation to the class. A wide range of topics will be acceptable including market regulation, the introduction of new financial instruments, the functioning of commodity futures markets, etc. Students will also be asked to analyze two or three individual equities.



John B. Shoven is the Charles R. Schwab Professor of Economics and the Wallace R. Hawley Director of the Stanford Institute for Economic Policy Research. He is a former dean of the School of Humanities and Sciences. He received his B.A. in physics at UC-San Diego and his Ph.D. in economics at Yale. He has published over 100 articles

and written or edited 20 books. He received the Dean's Award for Distinguished Teaching in 2003. He is also chairman of the board of Cadence Design Systems and on the board of American Century Funds.

Mixed Race in the New Millennium

Professor Michele Elam

Department of English

Our course examines the political and aesthetic implications of the hot new vogue for “mixed race,” examining contemporary literary and pop cultural images of mixed race as represented in literature, performance, internet, and visual media. Galvanized by the 2000 census with its offer of an “Other” racial category to check, mixed race advocates have acquired legal leverage and national recognition in the last decade. Dozens of organizations, websites, affinity and advocacy groups, modeling and casting agencies, television pilots, magazines, and journals—all focused on the mixed race experience—have emerged in the last few years. We will be analyzing both the rhetoric and the graphics of these, as well as some of the fiction, the autobiographical essays, and the performance art associated with those identifying as mixed race.

Assignments explore the current controversies over mixed race identification and also the expressive and political possibilities for representing complex racial identities: requirements include three two to three-page analytical writing assignments and an individualized project. (Students can choose three options for this project: artistic, performance-based, or a written narrative.)



Michele Elam is director of undergraduate studies and associate professor in the Department of English and the Research Institute of Comparative Studies in Race and Ethnicity. She is the author of *Race, Work, and Desire in American Literature, 1860–1930* and *Mixed Race in the New Millennium* and on the executive board for

the Future of Minority Studies Research Project. Professor Elam was a recipient of Stanford’s St. Clair Drake Outstanding Teaching Award in both 2004 and 2006. She teaches African American literary history and theory; black feminist theory; black cultural performance, and mixed race studies.

The Meaning of Life: Moral and Spiritual Inquiry through Literature

Dean for Religious Life Scotty McLennan

Program in Ethics in Society

Short novels and plays will provide the basis for reflection on ethical values and the purpose of life. Some of the works to be studied are F. Scott Fitzgerald’s *The Great Gatsby*, Leo Tolstoy’s *The Death of Ivan Ilyich*, Arthur Miller’s *Death of a Salesman*, Hermann Hesse’s *Siddhartha*, Jane Smiley’s *Good Will* and John Steinbeck’s *Of Mice and Men*. We will read for plot, setting, character, and theme using a two-text method—looking at both the narrative of the literary work and students’ own lives—rather than either deconstructing the literature or relating it to the author’s biography and psychology.

The kinds of questions we will ask have many answers: Why are we here? How do we find meaningful work? What can death teach us about life? What is the meaning of success? What is the nature of true love? How can one find balance between work and personal life? How free are we to seek our own destiny? What obligations do we have to others?

Half of the literature examined will be set in the United States, and the rest in other countries around the world. Both secular and religious world views from a variety of traditions will be considered. The authors chosen are able to hold people up as jewels to the light, turning them around to show all of their facets, both blemished and pure, while at the same time pointing to any internal glow beneath the surface.

Classes will be taught in a Socratic, discussion-based style. Study questions will accompany each reading and provide a foundation for class discussion. Grading will be based 50 percent on class participation, 25 percent on one-page reflection papers on reading assignments, and 25 percent on a four-page final paper due on September 21.



Scotty McLennan is the dean for religious life. He received his B.A. from Yale in 1970 and his M.Div. and J.D. degrees from the Harvard Divinity and Law Schools in 1975. He is both an ordained minister and an attorney. He has been at Stanford since 2001, having taught previously at Tufts University and the Harvard Business School.

For the first decade of his career he practiced church-sponsored poverty law in a low-income neighborhood of Boston. He is the author of *Finding Your Religion: When the Faith You Grew Up With Has Lost Its Meaning* and co-author of *Church on Sunday, Work on Monday: The Challenge of Fusing Christian Values and Business Life*. He lives on campus with his wife.

Environmental and Geological Field Studies in the Rocky Mountains

Professor C. Page Chamberlain

Department of Geological and Environmental Sciences

The Rocky Mountain area, ecologically and geologically diverse, is being strongly impacted by changing land-use patterns, global and regional environmental change, and societal demands for energy and natural resources. This three-week field program emphasizes environmental and geological problems in the Rocky Mountains and will cover a broad range of topics including the geologic origin of the America West from three billion years ago to the recent, paleoclimatology and the glacial history of this mountainous region, the long- and short-term carbon cycle and global climate change, and environmental issues in the American West that are related to changing land-use patterns and increased demand for its abundant natural resources. These broad topics are integrated into a coherent field-study by examining earth/environmental science-related questions in three different settings: 1) the three-billion-year-old rocks and the modern glaciers of the Wind River Mountains of Wyoming; 2) the sediments in the adjacent Wind River basin that host abundant gas and oil reserves and also contain the long-term climate history of this region; and 3) the volcanic center of Yellowstone National Park and mountainous region of Teton National Park, and the economic and environmental problems associated with gold mining and extraction of oil and gas in areas adjoining these national parks.

Students will complete six assignments based upon field exercises, working in small groups to analyze data and prepare reports and maps. Lectures will be held in the field prior to and after fieldwork.

Note: This course involves one week of backpacking in the Wind Rivers and hiking while staying in cabins near Jackson Hole, Wyoming. Students must arrive in Salt Lake City on September 2 (hotel lodging will be provided for the night of September 2) and will return with the group to Stanford by car on September 22. Because of the high demand for this class, final selection will be made after a short interview with a shortened list of student applicants.



C. Page Chamberlain received his Ph.D. in geology and geophysics from Harvard in 1985. He was a professor at Dartmouth College for 14 years before moving to Stanford in 2001. He is currently the chair of the Department of Geological and Environmental Sciences. His research is in the broad area of isotope biogeochemistry, and it

focuses on a wide variety of problems such as the link between climate and the origin of mountainous regions, the relationship between surface processes and tectonics, the chemical weathering of rocks, and isotopic studies of bird migration and the paleoecology of California condors. He has worked extensively in the northern Appalachians, Rocky Mountains, Sierra Nevada, Tibet and the Himalayas, and the Southern Alps of New Zealand.

The Invasion of Britain in the Second World War

Professor Peter Stansky

Department of History

Prerequisite: Preference will be given to students planning to study with the Stanford-in-Oxford program and prospective history majors.

This course will consider two invasions of Britain at the time of the Second World War, one potential, the other actual. The first was hostile: Operation Sea Lion, Hitler's intention, never realized, to invade Britain in September of 1940. We will assess how likely the invasion was to happen, and the role played in the story by the Battle of Britain, the Blitz, British appeasers, and other factors. The second invasion was benign, the arrival of nearly two million American troops in Britain. What effect did the arrival of the Americans, "overpaid, oversexed, and overhere," have on Britain? On the Americans? On the course of the war? Some attention might be paid to the reverse "invasion," of British children who were evacuated to the United States and elsewhere during the war. This story will take place against the background of the Second World War itself.

Members of the class will be expected to prepare one or two page reports on the reading to be sent to the instructor by attachment the day before and in the second week to make a longer oral and written report on a connected topic of their own choice that may require some additional research in the Stanford Library.

Note: This course will include both Stanford students and undergraduates from the University of Oxford, who will join us on the Stanford campus..



Peter Stansky is a professor of history whose major interest is modern British history. During his more than 30 years at Stanford, his teaching and writing have concentrated on the history of Britain during the 19th and 20th centuries, paying particular attention to the position of writers and artists in their society. His subjects in one recent book

range from 19th-century artist and critic William Morris to Virginia Woolf, Winston Churchill, George Orwell, and "Sergeant Pepper" of the Beatles.

The Federal Government and the West

Professor David M. Kennedy, Professor David Brady and Dr. Tammy Frisby

Departments of History and Political Science

This course will address the historical development and current status of the relationship between the U.S. federal government and the American West. It will focus on the ways in which the federal government's enormous landholdings in the West and the dependence of major sectors of the western economy on federal funds and institutions have created a peculiar relationship between the federal government and western states. We will begin by examining the history of federal involvement with the West, from the Northwest Ordinance of 1787 and the Civil War-Era Pacific Railroad Act down to the enormous reclamation projects of the New Deal and post-World War II periods and the Interstate Highway Act of 1956. We will then use this historical background to help us understand the contemporary relationship in a number of policy areas: land ownership and natural resource management, agriculture, water, energy, and environmental quality. The course will consider not only the influence of the federal government on the West but also how the politics and economies of western states have shaped federal policies that affect the nation.

The seminar will meet on the Stanford campus and then move to Washington, D.C. for discussion with elected officials and other policy makers. Travel to and from Washington will be arranged and paid for by Sophomore College. Students will form 3 to 4 research teams, and each team's final work product will be a formal presentation, suitable for posting on the Lane Center website, which will analyze a key issue in the relationship between the federal government and the West.



David M. Kennedy has taught at Stanford for more than 30 years. He received his graduate education at Yale in American studies. He is the Donald J. McLachlan Professor of History and co-director of the Bill Lane Center for the Study of the North American West. His research interests include World Wars I and II, the Great Depression, state formation, immigration, civil-military relations, and the concept of an American national character. His work has been recognized with the Bancroft, Parkman, and Pulitzer Prizes. He has also received the Hoagland Prize for undergraduate teaching. In his spare time, he can be found river rafting, bicycling, backpacking, or fly-fishing somewhere beyond the right bank of the Mississippi.



David Brady is deputy director and senior fellow at the Hoover Institution. He is also the Bowen H. and Janice Arthur McCoy Professor of Political Science and Leadership Values in the Graduate School of Business and professor of political science in Humanities and Sciences. He is an expert on the United States Congress and congressional decision-making. Professor Brady has received the Richard W. Lyman Award, and the Dinkelspiel and Phi Beta Kappa teaching awards.



Tammy M. Frisby is a lecturer in political science and a postdoctoral fellow at the Bill Lane Center for the Study of the North American West. Her current research interests include the consequences of declining populations for politics in the rural West, the politics of agricultural subsidies and tariffs, and the effect of election laws on state politics and policymaking.

Ebonics, Creoles, and Standard English in Education

Professor John Rickford

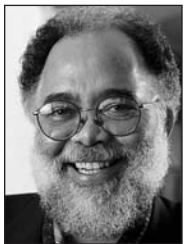
Department of Linguistics

The Oakland School Board's proposal to take the everyday vernacular of African American students (Ebonics) into account in teaching them mainstream or Standard English provoked a firestorm of controversy when it was first made public in 1996. However, the proposal—widely misrepresented as a move to replace the teaching of Standard English with teaching in and about Ebonics—was rarely understood. In addition, evidence for the efficacy of contrastive analysis and other methods implicit in the proposal was almost never introduced.

In this course we'll take a more dispassionate and informed look at the Oakland proposal and the substantial linguistic and pedagogical research associated with it. We'll also look at earlier controversies over educational recognition and use of African American vernacular English in the United States, and at ongoing but low-profile classroom experiments elsewhere in North America involving vernacular or Creole English in addition to Standard English.

Moreover, the Oakland Ebonics controversy of 1996 has rich precedents and parallels in Caribbean and Pacific communities in which the everyday vernaculars of students are pidgins and creoles, but the language required for success in schools and upward social mobility is Standard English. Considering such situations (for instance, in Guyana, Jamaica, northern Australia, and Hawai'i) will help us to elucidate the relevant linguistic, educational, and sociopolitical issues at the heart of the Ebonics firestorm, and to understand the scholarly literature that undergirds it.

In addition to reading the two books assigned for the course (one covering African American Vernacular English, the other the creole situation), students will be expected to prepare annotations/abstracts on two scientific articles dealing with the use of vernaculars in education (reading or writing pedagogy, for instance). As part of a group, they will also prepare and present a report on one of the several vernacular-related controversies that have erupted over the past two decades (e.g. in Oakland, Hawai'i, or Jamaica), suggesting how the school boards or government bodies might have responded more creatively or productively than they did.



John R. Rickford is a professor of linguistics and Pritzker University Fellow in Undergraduate Education at Stanford, where he has been since 1980. He has won several awards for distinguished teaching, including the Dean's Award and Bing Fellowship. Professor Rickford's interests include sociolinguistics, especially language and ethnicity,

social class and style, language variation and change, pidgin and Creole languages, African American vernacular English, and the application of linguistics to educational and social problems. He is the author of numerous scholarly articles, and author or editor of several books. His book, *Spoken Soul: The Story of Black English*, co-authored with his son Russell, won a 2000 American Book Award.

Hands-on Jet Engines

Professor John Eaton

Department of Mechanical Engineering

Prerequisite: Standard first-year courses for engineers, including math and physics. Hands-on experience with engineering hardware and tools is preferred.

The jet engine has arguably done more than any other 20th century invention to transform the world. Prior to the advent of commercial jet airliners, cross-country travel was a rarity, world travel was the province of the idle rich, and Stanford was a regional university. Now intercontinental travel is common, and internationalization has affected nearly everything we do. From an engineering perspective, jet engines continue to embody some of the most sophisticated technology ever designed, and competition drives continual improvements in fuel economy, engine lifetime, noise, and emissions. The focus of this course is to learn about some of the advanced technologies in a modern jet engine by actually building a working engine. The course will start with two days of intense classroom and laboratory instruction in how jet engines operate. We will then break into teams to build the various components of the engine, a test stand, and a computer control/monitoring system. Some of this will require additional specialized study. Near the end of the second week, we will assemble the entire system and run the engine. If time allows we will refine our design, and attempt to maximize its performance. This course will be a lot of work, and things will inevitably go wrong requiring long hours to fix. Please don't sign up if you expect to have free time during Sophomore College.



John Eaton is professor and vice chairman of the Mechanical Engineering Department and directs the GE Aircraft Engines/Stanford University Strategic Alliance. He has a large experimental research program on fundamental fluid mechanics and heat transfer, including their applications to jet engines. He worked as an undergraduate for

a jet engine company and regularly takes his freshman seminar class to visit the company. Professor Eaton is a Fellow of the American Society of Mechanical Engineers and the American Physical Society, and has won both the Tau Beta Pi and Perin Awards for undergraduate teaching in the School of Engineering. An avid fan of Stanford athletics, he is also an active participant in many sports, especially surfing, swimming, and biking.

AIDS in Africa

Professor David Katzenstein

Department of Medicine

Prerequisite: Basic familiarity with international AIDS issues and concepts. Experience in HIV prevention, care, or research programs preferred.

This course focuses on Africa, home to over 6 out of 10 people who are infected with the human immunodeficiency virus (HIV). We will begin by discussing hypotheses about the origins of HIV, which are suspected to be in equatorial West Africa. We will then review the different types of virus, their virulence, and the resulting diversity in HIV prevalence in the continent. Subsequent discussions will address the social, political, and economic consequences of the epidemic. Key topics will include mother-to-child transmission of the virus; pediatric HIV/AIDS; children orphaned by the epidemic; the role of increased advocacy in bringing the acquired immune deficiency syndrome (AIDS) to the attention of policy makers; and the effect of the sharp decrease in the cost of anti-retroviral therapy on health systems and health service delivery.

AIDS experts from the Stanford community and elsewhere will be invited to share their perspectives with us. In preparation for the seminar, you will be required to read Barnett and Whiteside's *AIDS in the Twenty-First Century* and selected scientific articles. As part of a group, you will also develop an AIDS-related project of your choice which you will present on the last day of class.



David Katzenstein is a professor of medicine in the division of infectious disease and geographic medicine at Stanford's medical school. Professor Katzenstein's experience in Africa began over 20 years ago, with his appointment as a lecturer at the University of Zimbabwe. He is part of the HIV Prevention Network, a collaborative group that develops and tests the safety and efficacy of clinical trials for preventing HIV in Africa and around the world. Professor Katzenstein has received several honors, including the Doris Duke Distinguished Clinical Scientist Award for outstanding physician-scientists.

Men, Women, and Opera

Professor Heather Hadlock

Department of Music

Prerequisite: None, but a background in music or theater is an advantage.

This "immersion course" in opera introduces famous works through the lenses of gender and sexuality. We begin with Verdi's *La Traviata* as an example of Italian Romantic opera's most familiar archetypes: the doomed soprano, the seductive tenor, and the repressive bass. We then examine contemporary queer/feminist appropriations of opera's misogynist and heterosexist content. Outside the Romantic-tragic core of the repertoire, we study the more ambiguous representation of gender in Handel's *Alcina*, whose central love triangle of two women and one man were sung by high-voiced castrati and/or women. In Mozart's comic operas *The Marriage of Figaro* and *Don Giovanni* we see women's wit and sincerity pitted against upper-class male lust, aggression, and social power. Finally, we study the Romantic obsessions with feminine beauty, music, and elusive love as manifest in Offenbach's tragi-comedy *The Tales of Hoffmann*.

In addition to learning about how opera works, students practice thinking and speaking critically about the cultural work of music; about traditional, subversive, and postmodernist interpretations of classic artworks; and about the theatrical performance of gender. We meet daily to discuss specific scenes and reading assignments, and each student gives at least one individual in-class presentation and one small-group presentation. The SCAs host "movie nights" in the dorm to watch complete operas on video/DVD. We will make one or two field trips to the San Francisco Opera and Opera San Jose (Fall 2007 repertoire TBA).

For the final project, teams of students will stage operatic excerpts in the manner of their choice: singing, lip-synching, puppet theater, video, etc.



Heather Hadlock, associate professor of music, has taught at Stanford since 1996. She received her B.A. in music and history from Duke in 1988 and her Ph.D. in Musicology from Princeton in 1996. She is a feminist music historian and critic of 19th-century French and Italian Romantic opera. Her book *Mad Loves: Women and Music in Offenbach's Les Contes d'Hoffmann* explores the literary sources and social meanings of this fantastical French Romantic opera. She is currently finishing *Pants Parts*, a book about "trouser roles" (female singers cast as men) in opera from the end of the Classic period through the modern era. By examining cross-dressed female performers in such masculine roles as the lover, the warrior, the pageboy, and the sidekick, she traces the changing depictions of gender, sexuality, authority, and love on the operatic stage.

A 20th-Century View of the Universe: The Elementary Particles, Dark Matter, and Dark Energy

Professor Patricia Burchat

Department of Physics

Prerequisite: Physics 41 and 43 or Physics 61 and 63 or strong high-school math and physics preparation.

A scientific revolution in our understanding of the universe is under way. In the last decade or so, cosmology has become a truly experimental science that has led to two mysterious observations: about a quarter of the energy content in the universe is in the form of “dark matter,” which gravitationally attracts but is otherwise invisible, and about two-thirds is in the form of “dark energy,” which causes space itself to expand at an ever-increasing rate. This means that only a small fraction of the energy in the universe is composed of matter that we understand! In this seminar, we will explore the evidence for dark matter and dark energy, and the experiments being developed to investigate their fundamental nature. We will discuss the “ordinary” elementary particles and how they interact in order to grasp why dark matter is believed to be due to more exotic particles. We will explore some of the candidates for dark matter, and experimenters’ efforts to detect it directly. We will also discuss present and future ground-based and space-based telescopes aimed at revealing the nature of dark energy.

Students will complete five assignments based on readings and the material discussed in class. In addition, students will work in small groups to research and deliver a presentation on a forefront exploration of dark matter or dark energy.



Patricia Burchat received her undergraduate education at the University of Toronto and her Ph.D. at Stanford. Her research in experimental particle physics focuses on studying the properties, especially the decay, of heavy quarks such as charm and bottom quarks. She is a founding member of the BABAR Collaboration, an international group of over 500 physicists conducting an experiment at the Stanford Linear Accelerator Center. The primary goal of the BABAR experiment is to understand differences in the way matter and antimatter evolve with time. Additionally, she is a member of the Large Synoptic Survey Telescope project with the goal of surveying the Universe in unprecedented detail from a mountain peak in northern Chile.

Professor Burchat received the 1996–97 Dean’s Award for Distinguished Teaching, became a fellow of the American Physical Society in 2001, was named the Sapp Family University Fellow in Undergraduate Education in 2004, was awarded a Guggenheim Fellowship in 2005, and was presented the Gabilan Professorship in 2006.

Bargaining, Power, and Social Influence

Professor Karen Cook

Department of Sociology

This Sophomore College seminar introduces students to the recent work on bargaining, influence, and power in various social settings. We study how negotiations work, how both simple and complex negotiations unfold under varying circumstances, and how conflict can be avoided in many bargaining situations. We will study decision-making through discussion and film study before we analyze effective negotiating strategies. We will also conduct sample negotiations to begin to understand how negotiators can be more effective. Groups will be formed to study and present the details surrounding a particular negotiation case to the seminar. Students may also participate in a computerized negotiation session.

Students will be expected to come to seminar sessions having done all of the reading and having prepared for their role in the practice negotiation sessions. For film sessions students will be asked to link the course material to the film study. Finally, students will be asked to write two 2–3 page papers on the lab sessions in which negotiations are conducted.



Karen Cook is the Ray Lyman Wilbur Professor of Sociology and the Chair of the Department of Sociology. She is also the Director of the Institute for Research in the Social Sciences (IRiSS). She received her B.A., M.A., and Ph.D. from Stanford University. She recently returned to join the faculty at Stanford after teaching for a number of years at the University of Washington and at Duke University. Her current interest is the study of trust in social relations. She is the recent editor of *Trust in Society* (2001) and a co-editor (with Nan Lin and Ron Burt) of a book on social capital (2001). Her most recent book is *Cooperation without Trust?* (2005), coauthored with R. Hardin and M. Levi. She is also conducting a study of the determinants and consequences of trust in physician-patient relations. During her career she has conducted a number of studies of bargaining and cooperation that compare results obtained in both the U.S. and Japan, where she works with her collaborator and former student Toshio Yamagishi of Hokkaido University. She was a fellow at the Center for Advanced Study in the Behavioral Sciences (1998–99) and was elected to the American Academy of Arts and Sciences in 1996.

Application Process

The application process has two parts:

1. Student application (see sample copy below)
2. Financial aid application (see next page)

1. Sophomore College 2007 Application

Due by 5:00 p.m. on Wednesday, April 18, 2007.

Note: This is a SAMPLE COPY of the Sophomore College application form. All applications must be submitted via the Sophomore College website: soco.stanford.edu.

Name _____ Student ID# _____

Address _____ Email _____

Course Name _____ Professor _____

Faculty review these essays carefully and look for a variety of backgrounds when selecting students for their class. Please write thoughtful, thorough replies to the questions below.

Recall your academic goals and interests when you first entered Stanford. (For example, what major or majors were you thinking about pursuing?) How and why, if at all, have these goals changed during the course of your first year? How and why, if at all, have they remained the same?

Please apply on the web at
soco.stanford.edu

Describe any experiences you have had or courses you have taken (at Stanford or outside of Stanford) which relate to the subject of this Sophomore College course.

Why do you want to participate in this class?

Note: A few seminars may have an additional course-specific question. See website for more details.

SAMPLE APPLICATION

2. Sophomore College Financial Aid Application

Note: This is a SAMPLE COPY of the Sophomore College financial aid application form. All applications must be submitted via the Sophomore College website at soco.stanford.edu.

Information below will not be used for purposes of reviewing your application. Seminar instructors will not see this page.

The Sophomore College program fee covers tuition, room, board, books, and class-required travel arranged by the program. The total fee is \$1300, but through the generosity of Stanford friends all students will automatically receive an \$800 scholarship. Each student will pay the remaining \$500, which will be included in the autumn quarter University bill. Students are also responsible for travel to campus (or off-campus site for some off-campus seminars), phone, network activation fees, class project materials, and other personal expenses.

Financial aid is available to help defray the \$500 remaining program fee; students should indicate interest in aid on the application form. (These grants cannot be applied toward other personal expenses.) The Financial Aid Office will determine eligibility. Financial need will have no bearing on course applications.

Name _____

Stanford ID# _____

Are you requesting financial aid? Check one.

Yes No

(Please note: We may not be able to consider financial aid requests received after May 5, 2007.)

For students on financial aid:

The Financial Aid Office has agreed to replace the portion of expected earnings lost due to participation in Sophomore College with either grants or loans depending on the family financial situation. If you are accepted to a class, contact the Financial Aid Office at financialaid@stanford.edu when you return to campus in the fall. The staff members will work with you to determine how loans or grants may be used to offset your lost earnings.

Please apply on the web
at soco.stanford.edu

Indices

Faculty Index

Stacey Bent	5
Russell Berman	6
David Brady	10
Patricia Burchat	13
Page Chamberlain	9
Karen Cook	13
William Durham	4
John Eaton	11
Michele Elam	8
Tammy Frisby	10
Deborah Gordon	5
Heather Hadlock	12
David Katzenstein	12
David Kennedy	10
Gil Masters	6
Scotty McLennan	8
Linda Paulson	7
Rush Rehm	7
John Rickford	11
John Shoven	7
Peter Stansky	9
Stuart Thompson	4

Department/Program Index

Anthropological Sciences	4
Biological Sciences	4, 5
Chemical Engineering	5
Civil and Environmental Engineering	6
Comparative Literature	6
Drama	7
Economics	7
English	8
Ethics in Society	8
Geological and Environmental Sciences	9
History	9, 10
Linguistics	11
Mechanical Engineering	11
Medicine	12
Music	12
Physics	13
Political Science	10
Sociology	13

Course Index

AIDS in Africa	12
Bargaining, Power, and Social Influence	13
Conservation and Development Dilemmas in the Amazon	4
Ebonics, Creoles, and Standard English in Education	11
The Ecology of Invasions	5
Environmental and Geological Field Studies in the Rocky Mountains	9
The Federal Government and the West	10
Ghost Stories: Why the Dead Return and What They Want from Us	6
Green Buildings	6
Hands-on Jet Engines	11
How Computer Chips Are Made	5
The Invasion of Britain in the Second World War	9
Learning Theater: From Audience to Critic at the Oregon Shakespeare Festival	7
The Meaning of Life: Moral and Spiritual Inquiry through Literature	8
Men, Women, and Opera	12
Mixed Race in the New Millennium	8
Natural History, Marine Biology, and Research	4
A Random Walk Down Wall Street	7
A 20th-Century View of the Universe: The Elementary Particles, Dark Matter, and Dark Energy	13

Freshman and Sophomore Programs

Fourth Floor, Sweet Hall
590 Escondido Mall
Stanford University
Stanford, CA 94305-3091

FIRST CLASS
U.S. POSTAGE
PAID
PERMIT NO. 90
SANTA CLARA, CA